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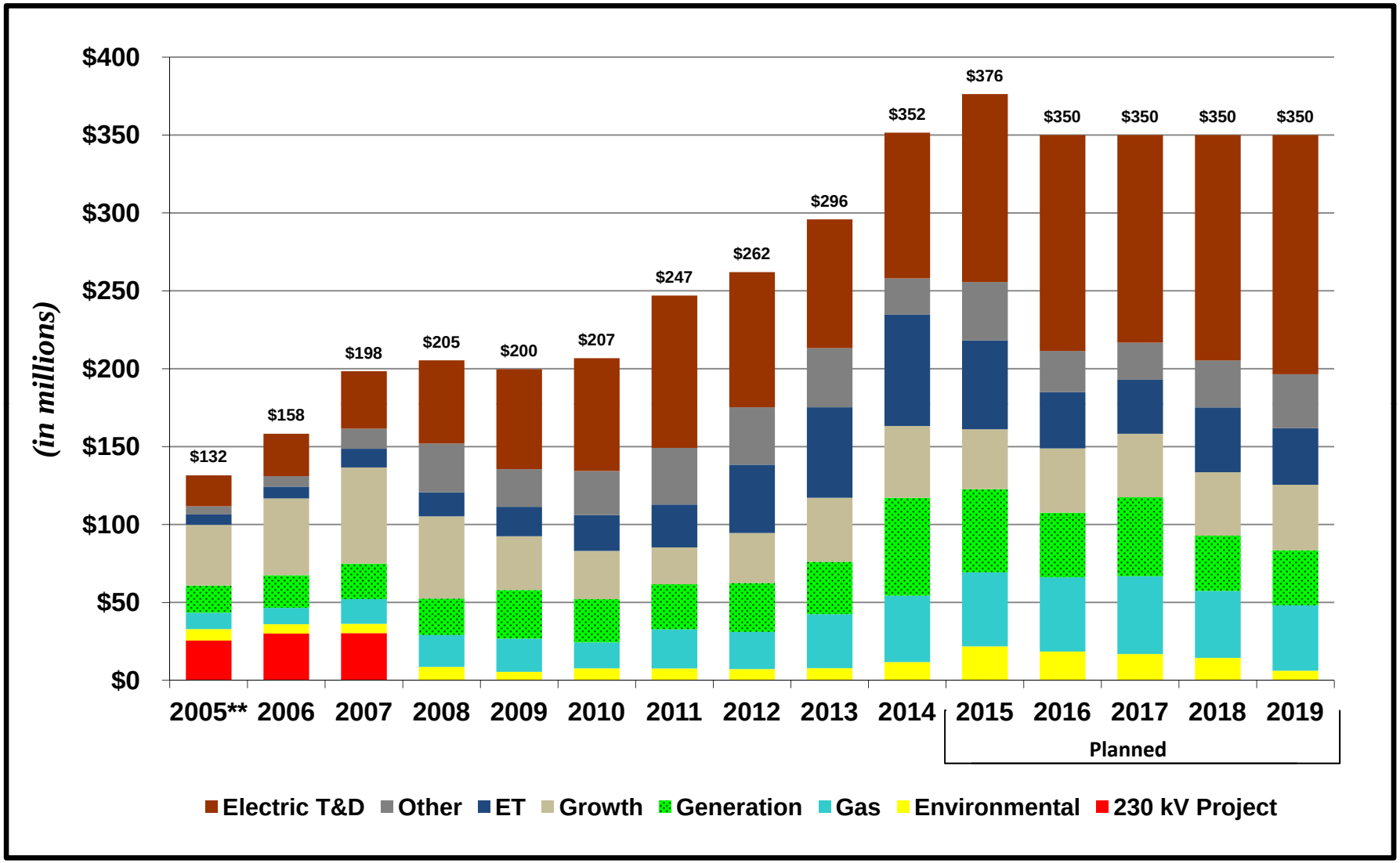
BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF AVISTA CORPORATION FOR THE AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR ELECTRIC AND NATURAL GAS SERVICE TO ELECTRIC AND NATURAL GAS CUSTOMERS IN THE STATE OF IDAHO	CASE NO. AVU-E-15-05 CASE NO. AVU-G-15-01 EXHIBIT NO. 11 KAREN K. SCHUH

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

Capital Expenditures



** 2005 excludes $57.5 for the purchase of the second half of Coyote Springs 2 and $17.8 for the office building purchase.

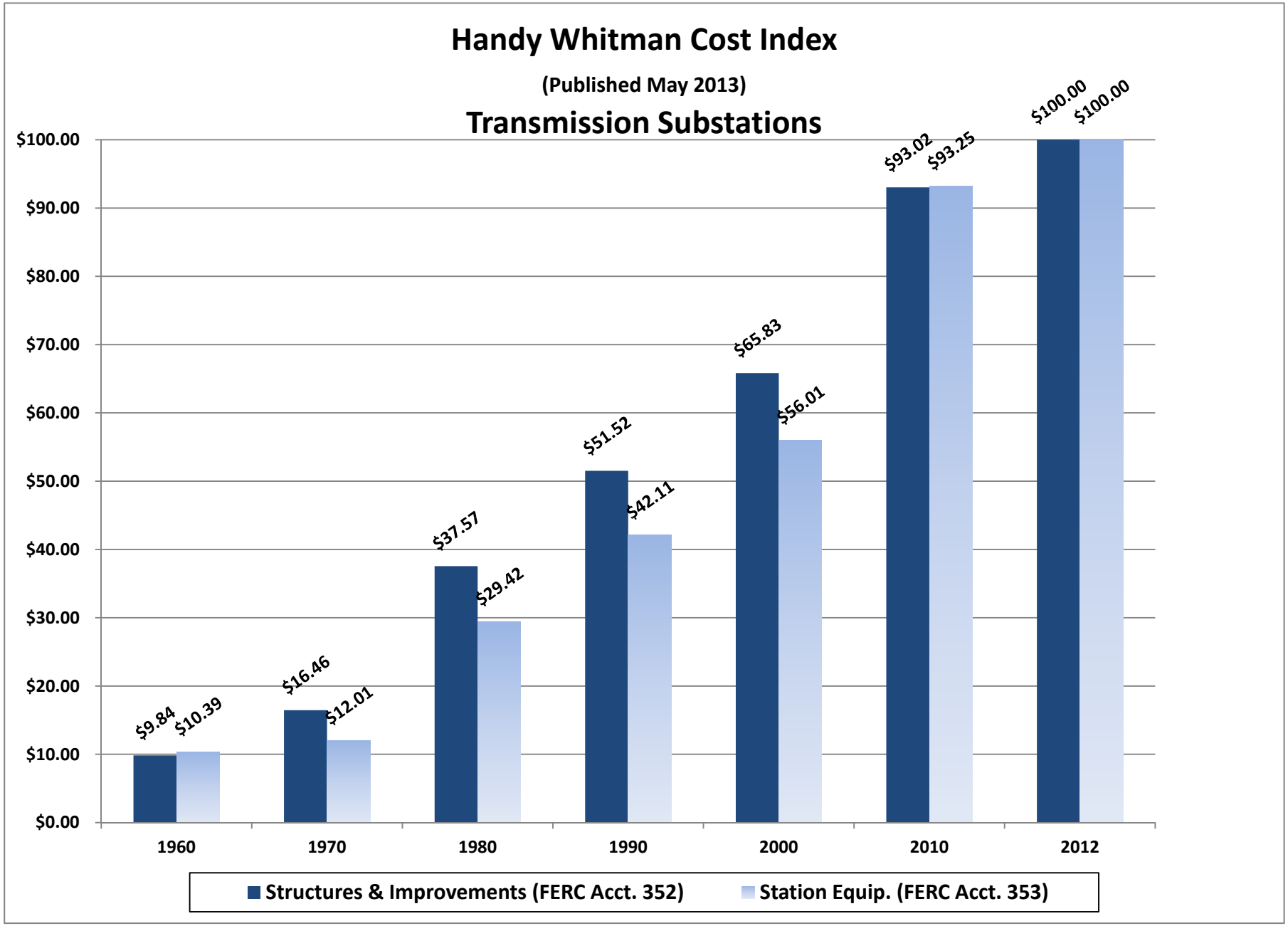
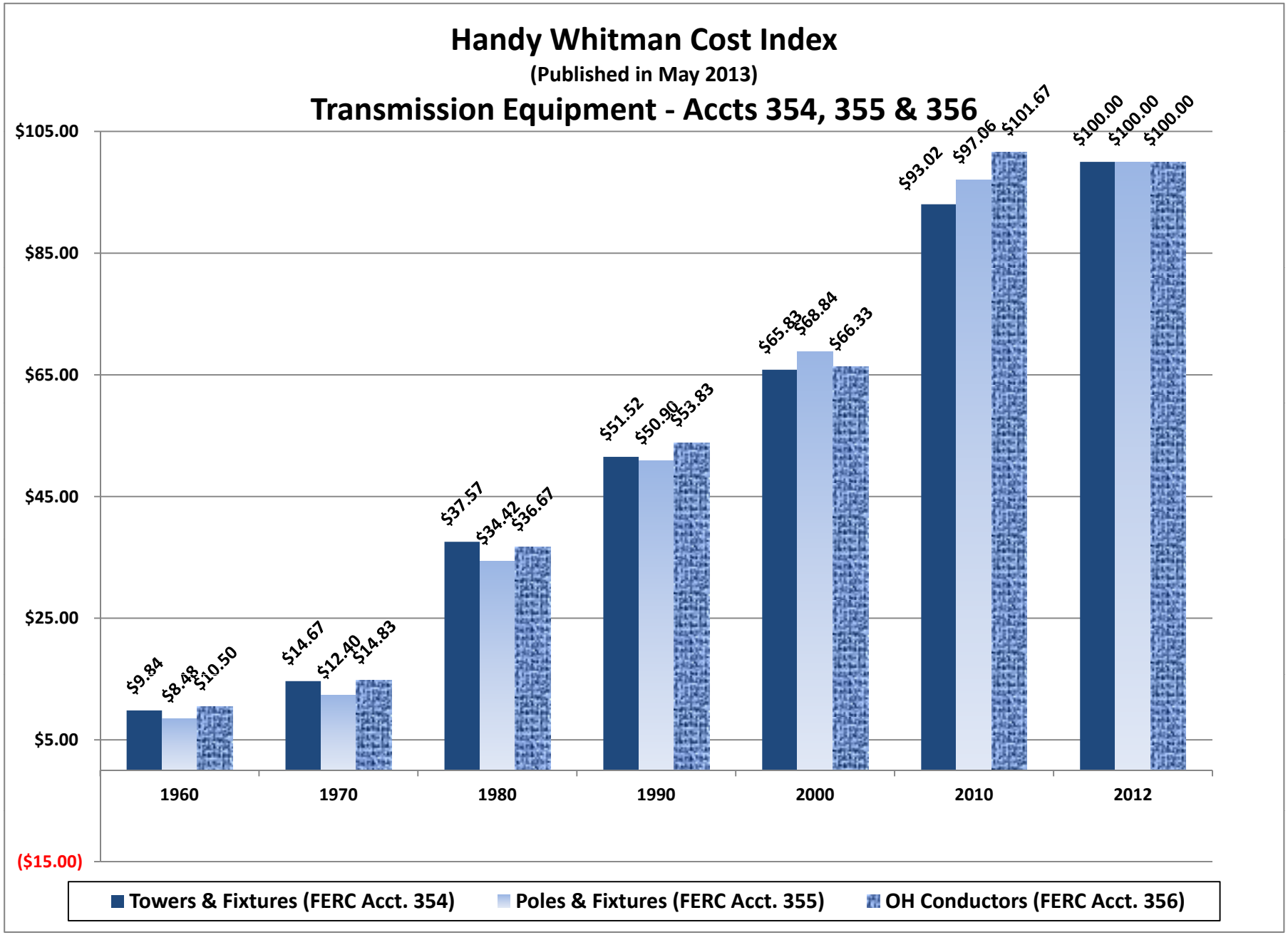
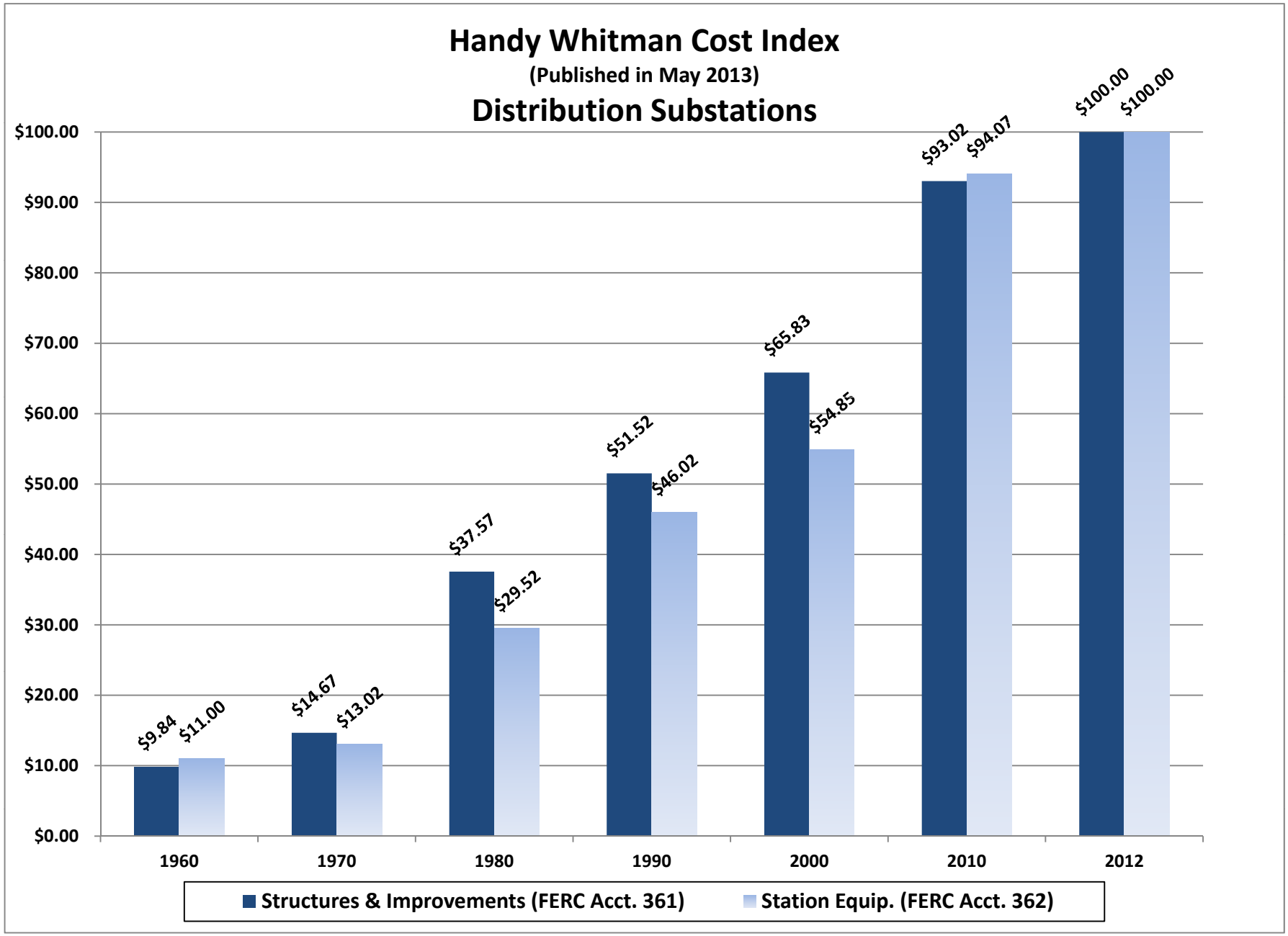
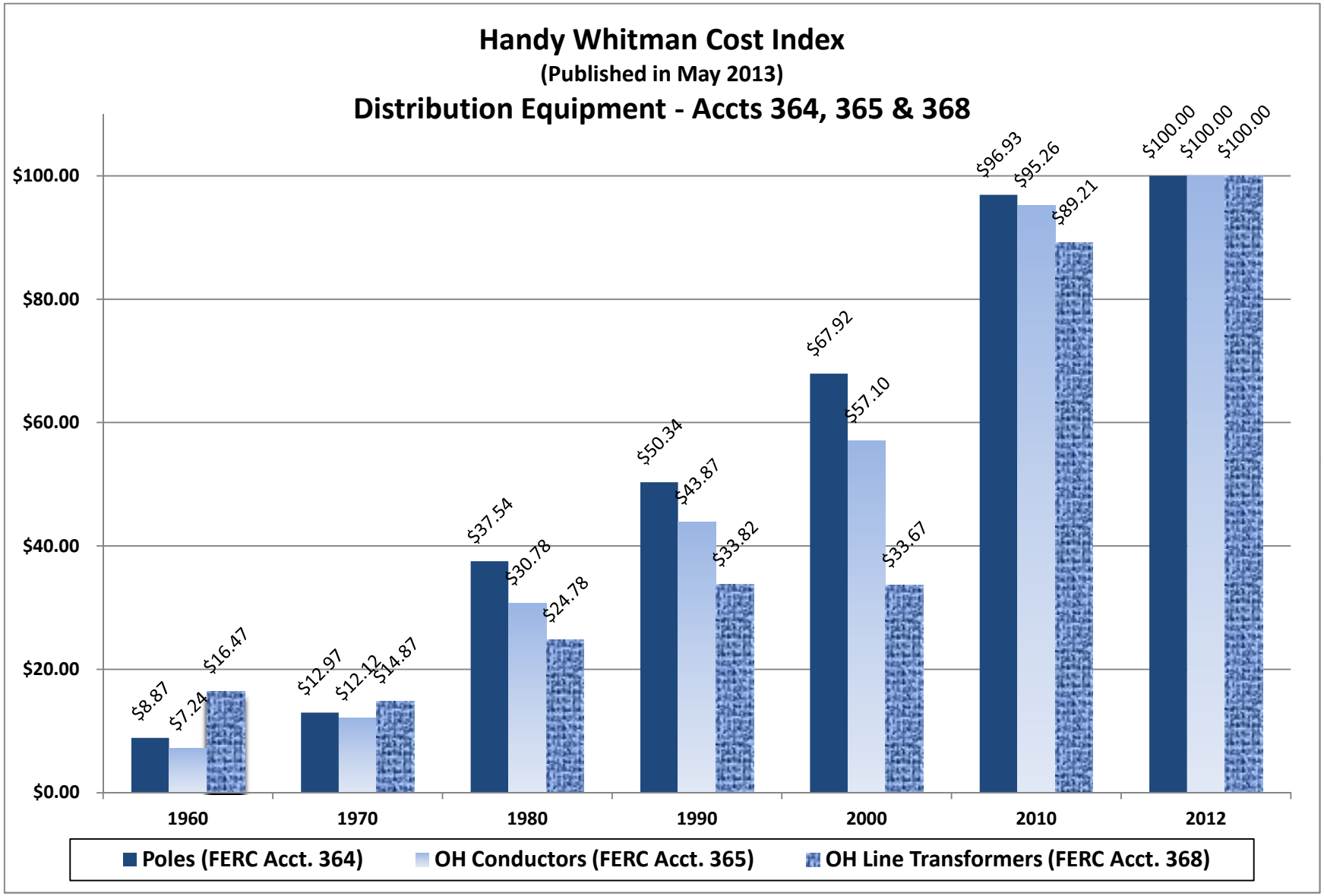


Exhibit No. 11
Case Nos. AVU-E-15-05 and AVU-G-15-01
K. Schuh, Avista
Schedule 2, Page 1 of 4


Handy Whitman Cost Index
(Published in May 2013)
Transmission Equipment - Accts 354, 355 & 356
$105.00
$85.00
$65.00
$45.00
$25.00
$5.00
($15.00)
$9.84
$8.48
$10.50
$14.67
$12.40
$14.83
$37.57
$34.42
$36.67
$51.52
$50.90
$53.83
$65.83
$68.84
$66.33
$93.02
$97.06
$101.67
$100.00
$100.00
$100.00
1960
1970
1980
1990
2000
2010
2012
Towers & Fixtures (FERC Acct. 354)
Poles & Fixtures (FERC Acct. 355)
OH Conductors (FERC Acct. 356)


Handy Whitman Cost Index
(Published in May 2013)
Distribution Substations
$100.00
$90.00
$80.00
$70.00
$60.00
$50.00
$40.00
$30.00
$20.00
$10.00
$0.00
$9.84
$11.00
$14.67
$13.02
$37.57
$29.52
$51.52
$46.02
$65.83
$54.85
$93.02
$94.07
$100.00
$100.00
1960
1970
1980
1990
2000
2010
2012
Structures & Improvements (FERC Acct. 361)
Station Equip. (FERC Acct. 362)


Handy Whitman Cost Index
(Published in May 2013)
Distribution Equipment - Accts 364, 365 & 368
$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
$8.87
$7.24
$16.47
$12.97
$12.12
$14.87
$37.54
$30.78
$24.78
$50.34
$43.87
$33.82
$67.92
$57.10
$33.67
$96.93
$95.26
$89.21
$100.00
$100.00
$100.00
1960
1970
1980
1990
2000
2010
2012
Poles (FERC Acct. 364)
OH Conductors (FERC Acct. 365)
OH Line Transformers (FERC Acct. 368)

Avista 2015 Capital Additions Detail (System)
(Transfers toPlant)

Exhibit No. 11 (K. Schuh, Avista)

Schedule No. 4, Page #		$ (000's)
	Generation / Production:	
7	Hydro - Base Load Hydro	$ 1,974
12	Hydro - Clark Fork Settlement Agreement	13,988
17	Hydro - Generation Battery Replacement	434
20	Hydro - Hydro Safety Minor Blanket	151
24	Hydro - Little Falls Plant Upgrade	14,300
27	Hydro - Nine Mile Rehab	56,567
31	Hydro - Regulating Hydro	5,186
34	Hydro - Spokane River License Implementation	1,266
39	Other - Base Load Thermal Plant	2,200
42	Other - Peaking Generation	501
47	Kettle Falls Water Supply	1,529
50	Thermal - Colstrip Thermal Capital	2,497
58	Hydro - Noxon Spare Coils	1,350
61	Hydro - Post Falls South Channel Replacement	9,309
64	Hydro - Cabinet Gorge Unit 1 Refurbishment	11,687
		$ 122,939
	General:	
77	Capital Tools & Stores Equipment	$ 2,348
80	COF Long-Term Restructuring Plan	7,500
83	Structures and Improvements/Furniture	6,030
86	Apprentice Training	121
89	HVAC Renovation Project	9,520
92	COF Long-term Restructure Ph2	2,723
95	Sandpoint Renovation	500
		$ 28,742
	Natural Gas Distribution:	
102	Aldyl A Replacement	$ 16,817
106	Cathodic Protection	1,292
109	Gas Non-Revenue Program	7,592
112	Gas Reinforcement	1,000
115	Gas Replacement Street & Highway	5,035
118	Gas Telemetry	416
121	Isolated Steel Replacement	3,458
124	Overbuilt Pipe Replacement	900
127	Regulator Station Reliability Replacement	812
130	Replace Deteriorating Steel Gas Systems	1,000
138	Gas PMC Program - Capital Replacements	1,030
144	Chase Road Gate Station	5,987
147	ERTs Replacement Program	402
		$ 45,741
	Gas Underground Storage:	
150	Jackson Prairie Storage	$ 1,356
		$ 1,356
	Transportation:	
153	Fleet Budget	$ 10,184
		$ 10,184

Avista 2015 Capital Additions Detail (System)
(Transfers toPlant)

Exhibit No. 11 (K. Schuh, Avista)

Schedule No. 4, Page #		**$ (000's)**
	Enterprise Technology:	
158	AvistaUtilities.com and AvaNet Redesign	$ 5,145
161	Enterprise Business Continuity Plan	1,043
164	Mobility in the Field	420
167	Technology Refresh to Sustain Business Process	21,379
170	Customer Information and Work & Asset Management System	96,685
171	Enterprise Security	5,400
174	Technology Expansion to Enable Business Process	7,431
180	High Voltage Protection Upgrade	1,252
183	Next Generation Radio Refresh	4,007
186	Microwave Refresh	2,755
		$ 145,517

	Electric Transmission / Distribution:	**Transmission**	**Distribution**	**Total Transmission & Distribution**
190	Colstrip Transmission/PNACI	$ 491	$ -	$ 491
195	Distribution Grid Modernization		14,081	14,081
200	Distribution Line Protection		125	125
203	Distribution Minor Rebuild		8,300	8,300
206	Distribution Transformer Change-Out Program		4,700	4,700
209	Distribution Wood Pole Management		11,000	11,000
214	Meter Minor Blanket		5,806	5,806
218	Electric Replacement/Relocation		2,403	2,403
221	Environmental Compliance	434	150	584
225	Primary URD Cable Replacement		1,000	1,000
228	Reconductors and Rebuilds	11,776	2,892	14,668
231	Segment Reconductor and FDR Tie Program		3,894	3,894
234	Lewiston Mill Rd. 115 kV Substation	684		684
237	Storms	1,000	2,000	3,000
240	Substation - 115 kV Line Relay Upgrades	1,230		1,230
243	Substation - Asset Mgmt. Capital Maintenance	1,647	2,679	4,326
246	Substation - Capital Spares	3,250	1,200	4,450
249	Substation - Distribution Station Rebuilds	250	2,297	2,547
252	Substation - New Distribution Stations		1,995	1,995
255	Tribal Permits and Settlements	1,430		1,430
258	Worst Feeders		2,435	2,435
261	Spokane Valley Transmission Reinforcement	3,468		3,468
264	Clearwater Sub Upgrades	500		500
267	Street Light Management		1,500	1,500
272	Noxon Switchyard Rebuild	9,906		9,906
275	Transmission - Asset Management	1,813		1,813
278	Transmission - NERC Low Priority Mitigation	500		500
281	Transmission - NERC Medium Priority Mitigation	3,306		3,306
284	SCADA - SOO & BUCC	1,061		1,061
		$ 42,746	**$ 68,457**	**$ 111,203**

Total Non-Revenue Capital	**$ 465,682**
Growth/Revenue - Producing	**$ 33,279**
Total Washington/Oregon Direct Capital Additions 2015	**$ 21,067**
Total Capital Additions in 2015	**$ 520,028**

Avista 2016 Capital Additions Detail (System)
(Transfers to Plant)

Exhibit No. 11 (K. Schuh, Avista)

Schedule No. 4, Page #		$ (000's)
	Generation / Production:	
7	Hydro - Base Load Hydro	$ 1,149
12	Hydro - Clark Fork Settlement Agreement	6,054
17	Hydro - Generation Battery Replacement	250
20	Hydro - Hydro Safety Minor Blanket	75
24	Hydro - Little Falls Plant Upgrade	9,000
27	Hydro - Nine Mile Rehab	9,871
31	Hydro - Regulating Hydro	3,533
34	Hydro - Spokane River License Implementation	397
39	Other - Base Load Thermal Plant	2,200
42	Other - Peaking Generation	500
50	Thermal - Colstrip Thermal Capital	10,480
55	Other - Coyote Springs LTSA	2,000
		$ 45,509
	General:	
77	Capital Tools & Stores Equipment	$ 2,400
80	COF Long-Term Restructuring Plan	4,000
83	Structures and Improvements/Furniture	3,600
86	Apprentice Training	60
		$ 10,060
	Natural Gas Distribution:	
102	Aldyl A Replacement	$ 17,385
106	Cathodic Protection	1,000
109	Gas Non-Revenue Program	8,595
112	Gas Reinforcement	1,000
115	Gas Replacement Street & Highway	4,500
118	Gas Telemetry	400
121	Isolated Steel Replacement	3,550
124	Overbuilt Pipe Replacement	900
127	Regulator Station Reliability Replacement	800
130	Replace Deteriorating Steel Gas Systems	1,000
133	Gas HP Pipeline Remediation Program	3,000
138	Gas PMC Program - Capital Replacements	1,061
141	Gas Rathdrum Prairie HP Main Reinforcement	5,000
147	ERTs Replacement Program	444
		$ 48,635
	Gas Underground Storage:	
150	Jackson Prairie Storage	$ 1,175
		$ 1,175
	Transportation:	
153	Fleet Budget	$ 7,700
		$ 7,700

Avista 2016 Capital Additions Detail (System)
(Transfers to Plant)

Exhibit No. 11 (K. Schuh, Avista)
Schedule No. 4, Page #

		$ (000's)
	Enterprise Technology:	
158	AvistaUtilities.com Redesign	$ 2,000
161	Enterprise Business Continuity Plan	450
164	Mobility in the Field	320
167	Technology Refresh to Sustain Business Process	16,095
171	Enterprise Security	3,200
174	Technology Expansion to Enable Business Process	5,552
180	High Voltage Protection Upgrade	415
186	Microwave Refresh	3,050
		$ 31,082

	Electric Transmission / Distribution:	**Transmission**	**Distribution**	**Total Transmission & Distribution**
190	Colstrip Transmission/PNACI	$ 497	$ -	$ 497
195	Distribution Grid Modernization		11,000	11,000
200	Distribution Line Protection		125	125
203	Distribution Minor Rebuild		8,300	8,300
206	Distribution Transformer Change-Out Program		4,700	4,700
209	Distribution Wood Pole Management		11,000	11,000
214	Meter Minor Blanket		5,806	5,806
218	Electric Replacement/Relocation		2,500	2,500
221	Environmental Compliance	350	150	500
228	Reconductors and Rebuilds	21,161	2,500	23,661
231	Segment Reconductor and FDR Tie Program		3,809	3,809
237	Storms	890	1,900	2,790
243	Substation - Asset Mgmt. Capital Maintenance	3,300	1,519	4,819
246	Substation - Capital Spares	4,915	1,200	6,115
249	Substation - Distribution Station Rebuilds	3,565	2,284	5,849
252	Substation - New Distribution Stations		75	75
255	Tribal Permits and Settlements	316		316
258	Worst Feeders		2,000	2,000
261	Spokane Valley Transmission Reinforcement	7,440		7,440
264	Clearwater Sub Upgrades	500		500
267	Street Light Management		1,500	1,500
272	Noxon Switchyard Rebuild	500		500
275	Transmission - Asset Management	1,772		1,772
278	Transmission - NERC Low Priority Mitigation	2,000		2,000
281	Transmission - NERC Medium Priority Mitigation	2,251		2,251
284	SCADA - SOO & BUCC	1,002		1,002
289	South Region Voltage Control	4,900		4,900
292	Westside Rebuild Phase One	1,780		1,780
		$ 57,139	**$ 60,368**	**$ 117,507**

Total Non-Revenue Capital	**$ 261,668**
Growth/Revenue - Producing	**$ 33,334**
Total Washington/Oregon Direct Capital Additions 2016	**$ 45,195**
Total Capital Additions in 2016	**$ 340,197**

Avista 2017 Capital Additions Detail (System)
(Transfers to Plant)

Exhibit No. 11 (K. Schuh, Avista)

Schedule No. 4, Page #		$ (000's)
	Generation / Production:	
7	Hydro - Base Load Hydro	$ 1,149
12	Hydro - Clark Fork Settlement Agreement	22,836
17	Hydro - Generation Battery Replacement	250
20	Hydro - Hydro Safety Minor Blanke	80
24	Hydro - Little Falls Plant Upgrade	10,000
27	Hydro - Nine Mile Rehab	858
31	Hydro - Regulating Hydro	3,533
34	Hydro - Spokane River License Implementation	17,018
39	Other - Base Load Thermal Plant	2,201
42	Other - Peaking Generation	500
50	Thermal - Colstrip Thermal Capital	9,617
55	Other - Coyote Springs LTSA	730
67	Cabinet Gorge Automation Replacement	2,842
70	Kettle Falls Stator Rewind	7,930
74	Long Lake Replace Field Windings	4,172
		$ 83,716
	General:	
77	Capital Tools & Stores Equipment	$ 2,400
83	Structures and Improvements/Furniture	3,600
86	Apprentice Training	60
92	COF Long-term Restructure Ph2	5,000
99	New Airport Hangar	1,500
		$ 12,560
	Natural Gas Distribution:	
102	Aldyl A Replacement	$ 18,263
106	Cathodic Protection	1,250
109	Gas Non-Revenue Program	8,680
112	Gas Reinforcement	800
115	Gas Replacement Street & Highway	4,500
118	Gas Telemetry	400
121	Isolated Steel Replacement	3,320
124	Overbuilt Pipe Replacement	900
127	Regulator Station Reliability Replacement	800
130	Replace Deteriorating Steel Gas Systems	1,000
133	Gas HP Pipeline Remediation Program	3,000
138	Gas PMC Program - Capital Replacements	1,093
141	Rathdrum Prairie HP Gas Reinforcement	5,000
147	ERTs Replacement Program	494
		$ 49,500
	Gas Underground Storage:	
150	Jackson Prairie Storage	$ 1,356
		$ 1,356
	Transportation:	
153	Fleet Budget	$ 7,700
		$ 7,700

Avista 2017 Capital Additions Detail (System)
(Transfers to Plant)

Exhibit No. 11 (K. Schuh, Avista)

Schedule No. 4, Page #		**$ (000's)**
	Enterprise Technology:	
161	Enterprise Business Continuity Plan	$ 450
167	Technology Refresh to Sustain Business Process	16,095
171	Enterprise Security	3,200
174	Technology Expansion to Enable Business Process	5,799
186	Microwave Refresh	3,050
177	AFM COTS Migration	15,608
		$ 44,202

	Electric Transmission / Distribution:	**Transmission**	**Distribution**	**Total Transmission & Distribution**
190	Colstrip Transmission/PNACI	$ 516	$ -	$ 516
195	Distribution Grid Modernization		13,000	13,000
200	Distribution Line Protection		125	125
203	Distribution Minor Rebuild		8,300	8,300
206	Distribution Transformer Change-Out Program		1,100	1,100
209	Distribution Wood Pole Management		12,000	12,000
214	Meter Minor Blanket		4,977	4,977
218	Electric Replacement/Relocation		2,600	2,600
221	Environmental Compliance	350		350
228	Reconductors and Rebuilds	18,327	2,500	20,827
231	Segment Reconductor and FDR Tie Program		4,175	4,175
237	Storms	883	2,000	2,883
243	Substation - Asset Mgmt. Capital Maintenance	3,300	1,551	4,851
246	Substation - Capital Spares	1,200	800	2,000
249	Substation - Distribution Station Rebuilds	2,865	3,315	6,180
252	Substation - New Distribution Stations		2,323	2,323
255	Tribal Permits and Settlements	297		297
258	Worst Feeders		2,000	2,000
267	Street Light Management		1,500	1,500
272	Noxon Switchyard Rebuild	7,700		7,700
275	Transmission - Asset Management	1,780		1,780
278	Transmission - NERC Low Priority Mitigation	3,000		3,000
284	SCADA - SOO & BUCC	1,044		1,044
		$ 41,262	**$ 62,266**	**$ 103,528**

Total Non-Revenue Capital	**$ 302,562**
Growth/Revenue - Producing	**$ 33,407**
Total Washington/Oregon Direct Capital Additions 2017	**$ 48,107**
Total Capital Additions in 2017	**$ 384,076**

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Base Load Hydro

ER No: **ER Name:**
4147 Base Hydro

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 3,447 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	1,974	-	-	-	-	-	-	-	-	-	-	-	1,149	825
2016	1,149	-	-	-	-	-	-	-	-	-	-	-	1,149	
2017	1,149	-	-	-	-	-	-	-	-	-	-	-	1,149	

Business Case Description:
This program is to cover the capital maintenance expenditures required to keep these plants operating within 90% of their current performance. The program will focus on ways to maintain compliance while maintaining reasonable unit availability. These plants are the Upper Spokane River plants, including Post Falls, Upper Falls, Monroe Street and Nine Mile.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Base Load Hydro**
Requested Amount	**$ 800,000**
Duration/Timeframe	10 Year Program
Dept.., Area:	GPSS
Owner:	Andy Vickers
Sponsor:	Jason Thackston
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	14.19%
Strategic:	Generating plant performance
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	88

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is to cover the capital maintenance expenditures required to keep these plants operating within 90% of their current performance (this assumes some degredation of performance over time.) The program will focus on ways to maintain compliance and reduce overall O&M expenses while maintaining a reasonable unit avilability. These plants are the Upper Spokane River Plants. These include PF, UF, MS, NM	This program would systematically upgrade various equipment to improve	$ 800,000	$ -	$ -	6

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Current Unit avilability has been declining over the past several years (see graph below). Status quo would anticipate a continuation of this general decline. This is due to the relative lower priority of these plants when contrasted to other generating assets.	n/a	$ 450,000	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Fund this program at something above the historical amount would result in some improvement but would continue the declining rate of availability	anticipate a slowing trend change	$ 650,000	$ -	$ -	6
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 1,200,000	$ -	$ -	$ 1,149,000
2015	$ 800,000	$ -	$ -	$ 1,149,000
2016	$ 800,000	$ -	$ -	$ 1,149,000
2017	$ 800,000	$ -	$ -	$ 1,149,000
2018	$ 800,000	$ -	$ -	$ 1,149,000
2019	$ 800,000	$ -	$ -	$ 1,149,000

Associated Ers (list all applicable):			
4000	4106		
4003	4109		
4004	4117		
4104			

Printed: 5/27/2015
http://sharepoint/departments/budget/Business Cases/Generation/Base Load Hydro

Capital Program Business Case

AVISTA

2020+	$ 4,000,000	$ -	$ -	$ -
Total	$ 9,200,000	$ -	$ -	$ 6,894,000

ER	2015	2016	2017	2018	2019	Total
4147	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 4,000,000
4106	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
4004	$ -	$ -	$ -	$ -	$ -	$ -
4117	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
4104	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 4,000,000

Mandate Excerpt (if applicable):

Within this program, there are some FERC and NERC mandated items that are included. These are expected to be managed as part of the overll program and are not considered as individual items here.

Additional Justifications:

The historical availability for the base load hydro plants has been declining over the past ten years due to deteriorating equipment and a need to replace some equipment and systems that are very old. The age of these plants (Post Falls 105 yrs old, NIne MIle 103 years old, and Upper Falls 90 years old) also create some issues due to the band aid investments that have been made over the years to address immediate problems rather than a programatic approach as indicated by this program.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☑ Medium Probability ☐ High Probablity
Contract Labor: ☑ YES ☐ NO

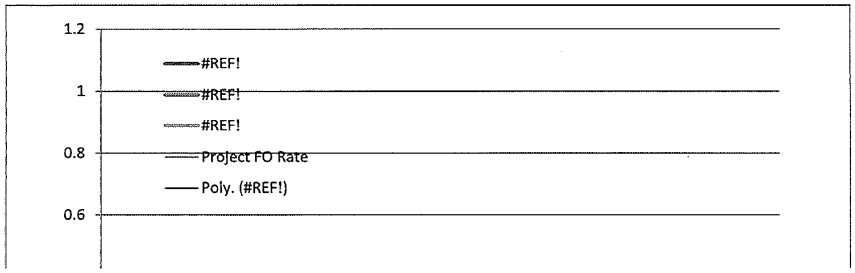
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



Prepared signature

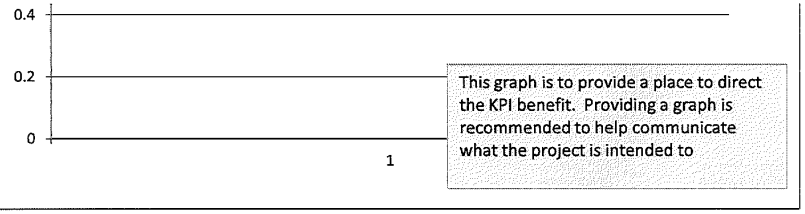
Reviewed signature
Director/Manager

Other Party Review signature Margi Stevens

Printed: 11-05-2014
C:\Users\rff9457\Desktop\Business Cases\Base Load Hydro

Capital Program Business Case

AVISTA



(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

Capital Program Business Case

Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Clark Fork Settlement Agreement

ER No:	**ER Name:**
6100	Clark Fork License/Compliance
6103	Clark Fork Implement PME Agreement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 40,057 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	13,988	768	864	912	977	1,010	1,028	932	911	977	1,010	1,202	3,395
2016	6,054	178	208	223	243	393	403	403	403	363	323	288	2,631
2017	22,836	100	100	115	195	195	280	280	295	295	215	110	20,656

Business Case Description:
Implementation of Protection, Mitigation and Enhancement (PM&E) programs. License is issued to Avista Corporation for a period of 45 years, effective March 1, 2001, to operate and maintain the Clark Fork Project No. 2058. The License includes hundreds of specific legal requirements, many of which are reflected in License Articles 404-430. These Articles derived from a comprehensive settlement agreement between Avista and over 20 other parties, including the States of Idaho and Montana, various federal agencies, five Native American tribes, and numerous Non Governmental Organizations. We are required to develop, in consultation with the Management Committee, a yearly work plan and report, addressing all PM&E measures of the License. In addition, implementation of these measures is intended to address ongoing compliance with Montana and Idaho Clean Water Act requirements, the Endangered Species Act (fish passage), and state, federal and tribal water quality standards as applicable. License articles also describe our operational requirements for items such as minimum flows, ramping rates and reservoir levels, as well as dam safety and public safety requirements.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Clark Fork Settlement Agreement
Requested Amount	$12,569,817
Duration/Timeframe	45 Year Program
Dept.., Area:	Environmental
Owner:	Tim Swant (Mgr), Bruce Howard (Dir)
Sponsor:	Marian Durkin
Category:	Mandatory
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	High - Exceeds 12% CIRR
Strategic:	Other
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >10 and <= 15
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	174

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Implementation of Protection, Mitigation and Enhancement (PM&E) programs. License is issued to Avista Corporation for a period of 45 years, effective March 1, 2001, to operate and maintain the Clark Fork Project No. 2058. The License includes hundreds of specific legal requirements, many of which are reflected in License Articles 404-430. These Articles derived from a comprehensive settlement agreement between Avista and over 20 other parties, including the States of Idaho and Montana, various federal agencies, five Native American tribes, and numerous Non Governmental Organizations. We are required to develop, in consultation with the Management Committee, a yearly work plan and report, addressing all PM&E measures of the License. In addition, implementation of these measures is intended to address ongoing compliance with Montana and Idaho Clean Water Act requirements, the Endangered Species Act (fish passage), and state, federal and tribal water quality standards as applicable. License articles also describe our operational requirements for items such as minimum flows, ramping rates and reservoir levels, as well as dam safety and public safety requirements.		$ 12,569,817	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	If the PMEs are not funded, there is potential for penalties/fines, new license requirements or alternative enforcement and higher mitigation costs, and/or loss of operational flexibility of the hydro facilities; in addition, we are subject to direct enforcement or lawsuits regarding the settlement.	n/a	$ -	$ -	From Moderate to Extreme	20
			$ -	$ -	$ -	0
			$ -	$ -	$ -	0
			$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ 5,728,500
2013	$ 5,348,751	$ -	$ -	$ 4,655,220
2014	$ 12,569,817	$ -	$ -	$ 9,341,817
2015	$ 18,760,951	$ -	$ -	$ 9,927,956
2016	$ 13,410,790	$ -	$ -	$ 14,293,795
2017	$ 15,056,504	$ -	$ -	$ 15,835,510
2018	$ 5,139,269	$ -	$ -	$ 13,302,275
2019	$ -	$ -	$ -	$ 5,052,843
Total	$ 70,286,082	$ -	$ -	$ 78,137,916

Associated Ers (list all applicable):

6103	6100			

Mandate Excerpt (if applicable):

Article 401. The licensee shall comply with the terms and conditions of this license in accordance with the Clark Fork Settlement Agreement (CFSA) (License Application Volume III) Entered into January 28, 1999, in addition to the articles set forth within the FERC project 2058-014

Additional Justifications:

The CFSA establishes processes and includes measures for resolving a wide range of complex and conflicting areas of interest to 27 various parties. Under this agreement, Avista will work with a Management Committee comprised of one representative of each of the parties to implement the PM&E measures.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required

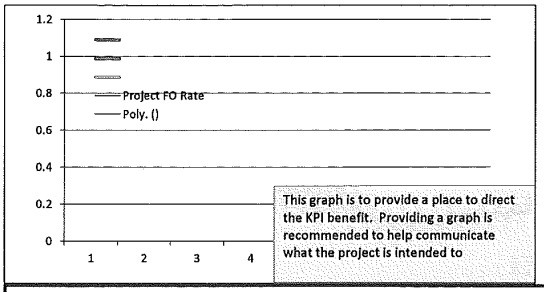
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided

	☐ YES - attach form		
Fleet:	☐ YES - attach form	☑ NO or Not Required	(this does not require a firm committment).

AVISTA

Capital Program Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

Capital Budget Projections

		2014	2015	2016	2017	2018	
ER 6103		3,687,817	3,827,951	4,023,790	4,225,504	4,352,269	**Core PMEs:** assumes 3% labor change, 3% ave GDP and int adjustment (10 year historical review)
Guy		1,317,000	2,103,000	2,322,000	2,566,000	12,000	**Spillway Crest** modifications for TDG- assumes repairs to Bay 2 are complete in 2013 and revised design are completed in late 2013 early 2104. Modify 1 bay in 2014, 2 bays in 2015, 2 bays in 2016, and 2 bays in 2017
Bruce		225,000	340,000	425,000	245,000	375,000	**Tributatry traps for downstream passage:** assumes feasibility study and design 2014 - 2015, with construction anticipated in 2016
		4,900,000	9,900,000	2,500,000	-	-	**Cabinet Gorge fishway:** assumed to be started post spill 2014 and completed by the start of Q3 2016
		390,000	590,000	3,920,000	7,620,000	-	**Noxon Rapids fishway:** assumes project on hold at 30% level with construction to begin 2016. Some backgroud project work would continue.
Min Flow		250,000	200,000	100,000	100,000	100,000	
Clark Fork Delta		1,500,000	1,500,000	-	-	-	erosion remediation with Avista contributing 15-25% to the erosion loss. Project to begin in the fall of 2014 through 2015.
Permitting & Additional Labor		200,000	200,000	20,000	200,000	200,000	permitting needs on all construction: Fishway Projects & GSCP change in management of Spillway Crest and additional anticipated labor expenses
ER 6100		100,000	100,000	100,000	100,000	100,000	Ongoing non-PME capital for facilities maintenance.
B04		12,569,817	18,760,951	13,410,790	15,056,504	5,139,269	

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Generation Battery Replacement

ER No: **ER Name:**
4108 System Battery Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 750 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	434	-	-	63	-	-	63	-	-	63	-	-	63	184
2016	250	-	-	63	-	-	63	-	-	63	-	-	63	
2017	250	-	-	63	-	-	63	-	-	63	-	-	63	

Business Case Description:
This program is set up around an asset management plan for the station batteries in all generating stations. This is the same as the current battery replacement item. This item will also have some minor fluctuations as the number and size of batteries in any one year can change.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Generation Battery Replacement		
Requested Amount	$160,000	Assessments:	
Duration/Timeframe	20 Year Program	Financial:	Low - >0% and < 5% CIRR
Dept.., Area:	GPSS	Strategic:	Life Cycle Programs
Owner:	Andy Vickers	Operational:	Operations somewhat impacted by execution
Sponsor:	Jason Thackston	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	72

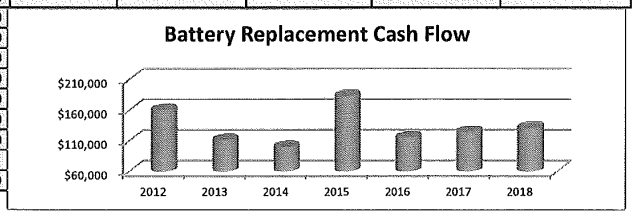
Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is set up around an asset management plan for the station batteries in all generating stations. This is the same as the current Battery replacment item. This item will also have some minor fluctuations as the number and size of batteries in any one year can change.	Forced outages from battery failures	$ 160,000	$ -	$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	We currently have a battery replacement program in place	n/a	$ 120,000	$ -	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Failure to replace batteries on a planned basis will result in system failures of a battery and subsequently place an entire generating asset and public at risk due to loss of protection and control of the systems.	possible outages and equipment failures	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 10,000	$ -	$ -	$ 10,000
2012	$ 160,000	$ -	$ -	$ 160,000
2013	$ 111,000	$ -	$ -	$ 111,000
2014	$ 100,000	$ -	$ -	$ 100,000
2015	$ 183,000	$ -	$ -	$ 250,000
2016	$ 115,000	$ -	$ -	$ 250,000
2017	$ 124,000	$ -	$ -	$ 250,000
2018	$ 131,000	$ -	$ -	$ 250,000
2019	$ -	$ -	$ -	$ 250,000
Future	$ 201,000	$ -	$ -	$ -
Total	$ 1,135,000	$ -	$ -	$ 1,631,000

Associated Ers (list all applicable):
4108



Mandate Excerpt (if applicable):
n/a

Additional Justifications:
This is part of a life cycle program for battery replacement. While there is little to measure the benefits from this program, failure to execute this program results in unplanned system battery failures. We have experienced these failures in the recent past and had been fortunate that we did not loose control of the plant. When a battery fails, there is a risk of loss of control, loss of protection, and the possibilty of extensive damage to powerhouse equipment due to the excess low voltage or loss of control. The DC system is the one system that must be near fail safe in order to protect both property and personnel.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form ☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form ☑ NO or Not Required
				Capital Tools:	☐ YES - attach form ☑ NO or Not Required
				Fleet:	☐ YES - attach form ☑ NO or Not Required

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Capital Investment Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Hydro Safety Minor Blanket

ER No: **ER Name:**
6001 Hydro Generation Minor Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 225 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	151	-	-	18	-	-	18	-	-	18	-	-	18	81
2016	75	-	-	19	-	-	19	-	-	19	-	-	19	
2017	80	-	-	20	-	-	20	-	-	20	-	-	20	

Business Case Description:
Funds periodic capital purchases and projects to ensure public safety at hydro facilities, on and off water, in context of FERC regulatory and license requirements. Hydro Public Safety measures as described in the Federal Energy Regulation Commission (FERC) publication "Guidelines for Public Safety at Hydropower Projects" and as documented in Avista's Hydro Public Safety Plans for each of its hydro facilities.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Hydro Safety Minor Blanket
Requested Amount	$65,000
Duration/Timeframe	Lifetime Year Program
Dept.., Area:	Environmental
Owner:	Michele Drake (Coor); Bruce Howard (Dir)
Sponsor:	Marian Durkin
Category:	Mandatory
Mandate/Reg. Reference:	FERC Hydro Public Safety Guidelines

Assessments:	
Financial:	MH - >= 9% & <12% CIRR
Strategic:	Other
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >10 and <= 15
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	160

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Funds periodic capital purchases and projects to ensure public safety at hydro facilities, on and off water, in context of FERC regulatory and license requirements	n/a	$ 65,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Alternative 1: Funded	Funding of this program reduces liability risk and improves public safety on and near the Hydro Facilities. These requirements come from Federal Law and are referenced as poart of our hydro licenses from FERC.	n/a	$ 65,000	$ -	$ -	20
Alternative 2: Unfunded	Potential compliance issues and possible fines imposed. Potential for loss of life or injury and increased legal litigation associated with recreational liability.		$ -	$ -	from moderate to extreme	4

Program Cash Flows
5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012		$ -	$ -	$ 35,000
2013		$ -	$ -	$ 5,000
2014	$ 65,000	$ -	$ -	$ 88,000
2015	$ 70,000	$ -	$ -	$ 70,000
2016	$ 75,000	$ -	$ -	$ 75,000
2017	$ 80,000	$ -	$ -	$ 80,000
2018	$ 80,000	$ -	$ -	$ 80,000
2019	$ -	$ -	$ -	$ 80,000
Total	$ 370,000	$ -	$ -	$ 513,000

Associated Ers (list all applicable):

Current ER	6001

Mandate Excerpt (if applicable):

Section 10© of the Federal Power Act authorizes the FERC to establish regulations requiring owners of hydro projects unders its jurisdiction to operate and properly maintain such projects for the protection of life, health and property. Title 18, Part 12, Section 42 of the Code of Federal Regulations stats that, "To the satisfaction of, and within a time specified by the Regional Engineer an applicant, or licensee must install, operate and maintain any signs, lights, sirens, barriers or other safety devices that may reasonably be necessary.

Additional Justifications:

Hydro Public Safety measures as described in the Federal Energy Regulation Commission (FERC) publication "Guidelines for Public Safety at Hydropower Projects" and as documented in Avista's Hydro Public Safety Plans for each of its hydro facilities.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity
Contract Labor:	☑ YES	☐ NO	

Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Facilities:	☐ YES - attach form	☑ NO or Not Required
Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure: FERC's Annual Dam Safety Inspections, Public Use Inspection (conducted approximately once every five years) and review & approval of Avista's submittals.

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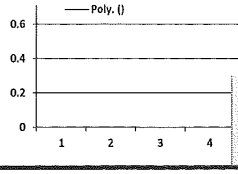
AVISTA



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

Director/Manager

Other Party Review signature (if necessary) Margie Stevens

Director/Manager

Capital Budget Projections

		2014	2015	2016	2017	2018	
ER 6001		65,000	70,000	75,000	80,000	80,000	Dam Safety anticipated need for safety equipment
H04		65,000	70,000	75,000	80,000	80,000	
ER 7108		265,000	195,000	125,000	125,000	125,000	Franchising / Permit Renewals assume 40 year Railroad permit renewals on existing substations & equipment on the John Wayne Pioneer Trail

HED	Year	Description	Est Cost
Cabinet Gorge	2014	K-rated gate at main entrance, S. entrance, and overlook entrance (all equipped with intercom, card swipe, and CCTV)	$65,000
Noxon Rapids	2015	K-rated gate at main entrance, S. entrance, and near substation (all equipped with intercom, card swipe, and CCTV)	$70,000
Long Lake	2016	K-rated gate at main entrance (equipped with intercom, card swipe, and CCTV)	$25,000
Nine Mile	2016	K-rated gate at main entrance (equipped with intercom, card swipe, and CCTV)	$25,000
Post Falls	2016	K-rated gate at main entrance (equipped with intercom, card swipe, and CCTV)	$25,000
Long Lake	2017	Down Stream Warning System	$80,000
Nine Mile	2018	Down Stream Warning System	$80,000

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Little Falls Plant Upgrade

ER No: **ER Name:**
4152 Little Falls Powerhouse Redevelopment

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 27,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	14,300	-	-	3,800	-	-	-	10,500	-	-	-	-	-
2016	9,000	-	-	-	9,000	-	-	-	-	-	-	-	-
2017	10,000	-	-	-	10,000	-	-	-	-	-	-	-	-

Business Case Description:
The existing Little Falls equipment ranges in age from 60 to more than 100 years old. The Company has experienced an increase in forced outages at Little Falls over the past six years has significantly increased (from approximately 20 hours in 2004 to several hundred hours in the past three to four years) due to equipment failures on a number of different pieces of equipment. This project will replace nearly all of the old, unreliable equipment with new. This includes replacing two of the turbines, all four generators, all generator breakers, three of the four governors, all of the automatic voltage regulators, removing all four generator exciters, replacing the unit controls, changing the switchyard configuration, replacing the unit protection system, and replacing and modernizing the station service.

Offsets:
The attached business case shows O&M Offsets of $20,000. It was determined that these savings are related to employee labor that will be redistributed to other projects and does not result in an overall labor savings.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

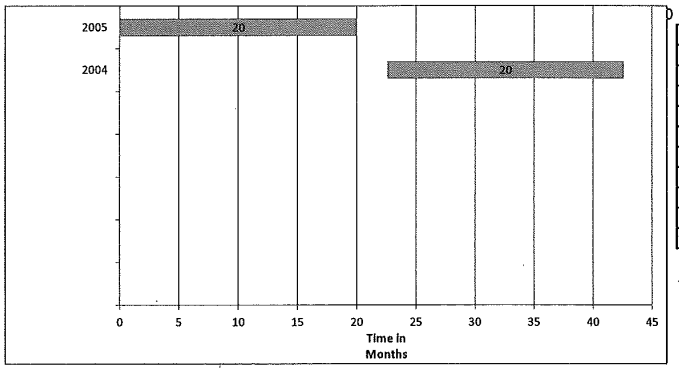
AVISTA

Investment Name:	Little Falls Plant Upgrade (Revised)	Assessments:	
Requested Amount	$56,100,000	Financial:	MH - >= 9% & <12% CIRR
Duration/Timeframe	8 Year Project	Strategic:	Generating Fleet Moderization
Dept.., Area:	GPSS	Operational:	Operations improved beyond current levels
Owner:	Andy Vickers	Business Risk:	ERM Reduction >5 and <= 10
Sponsor:	Jason Thackston	Project/Program Risk:	High certainty around cost, schedule and resources
Category:	Project	Assessment Score:	104.5
Mandate/Reg. Reference:	n/a		

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The existing Little Falls equipment ranges in age from 60 to more than 100 years old. We have experienced an increase in forced outages at Little Falls over the past six years has significantly increased (from ~20 hours in 2004 to several hundred hours in the past three to four years) due to equipment failures on a number of different pieces of equipment. This project will nearly all of the old, unreliable equiment with new. this includes replacing two of the turbines, all four generators, all generator breakers, three of the four governors, all of the AVR's, removing all four generator excters, replacing the unit controls, changing the switchyard configuration, replacing the unit protection system, and replace	there would be some performance improvement	$ 56,100,000	$ (20,000)	$ -	3

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	Forced outages and emergency repairs would continue to increase, reducing the reliability of the plant. At some point, personnel may need to be placed back in the plant.	n/a	$ -	$ 20,000	$ 150,000	12
Alternative 1: Brief name of alternative (if applicable)	This would replace the two items that are currently in the worst condition, and then continue to use the older equipment. This continues to rely on this older equipment for reliability purposes. This would only minimally improve Force Outage rate for the plant.	Major personnel safety would be addressed	$ 5,000,000	$ 20,000	$ -	9
Alternative 2: Brief name of alternative (if applicable)	This would replace the major cost items, but the station service reliability would continue to cause an increasing unplanned outages. However, the replacement and down time costs would be much less	Would reduce the outage times	$ 51,000,000	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 1,800,000	$ -	$ -	$ 1,800,000
2012	$ 3,200,000	$ -	$ -	$ 2,000,000
2013	$ 6,500,000	$ -	$ -	$ 5,000,000
2014	$ 9,400,000	$ -	$ -	$ 9,500,000
2015	$ 8,800,000	$ -	$ -	$ 8,800,000
2016	$ 9,400,000	$ -	$ -	$ 9,400,000
2017	$ 8,800,000	$ -	$ -	$ 8,800,000
2018	$ 6,200,000	$ -	$ -	$ 6,200,000
2019	$ -	$ -	$ -	$ -
Future	$ 2,000,000	$ -	$ -	$ -
Total	$ 56,100,000	$ -	$ -	$ 51,500,000

Milestones (high level targets)

October-10	Project Started	March-14	Control Room Installed	July-15	Second Unit OOS
July-12	AVR/Breaker Replacement	June-14	Control Panels Installed	March-16	Second Unit RTS
February-12	AVR/Breaker Work Complete	June-14	Switchyard Work Complete	July-16	Third Unit OOS
July-13	Demolition Complete	July-14	First Unit Out of Service (OOS)	March-17	Third Unit RTS
January-14	Station Service Complete	March-15	Rirst Unit Returned to Service (R	7/1/117	Fourth Unit OOS

Associated Ers (list all applicable):	4102							
	4103							

Mandate Excerpt (if applicable): This is not a mandated item.

Additional Justifications:

Because of the age and condition of all of the equipment of the plant, all of the equipment has been qualified as obsolete in accordance with the obsolescence criteria tool. The Asset Management tool has been applied to Little Falls and also supports this project. The Asset Management studies that have been done to date are still subject to further refinements, but the general conclusions support this project. There are many items in this 100 year old facility which do not meet modern design standards, codes, and expectations. This project will bring Little Falls to a place where it can be relied on for another 50 to 100 years. Finally, this project will need to be worked in coordination with our Indian Relations group as the Little Falls project is part of a settlement agreement with the Spokane Tribe.

Capital Investment Business Case

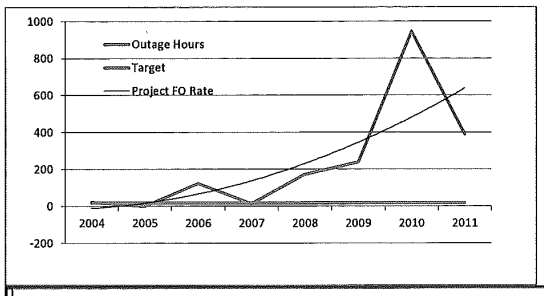
AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probablity	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure: Forced Outage Hours



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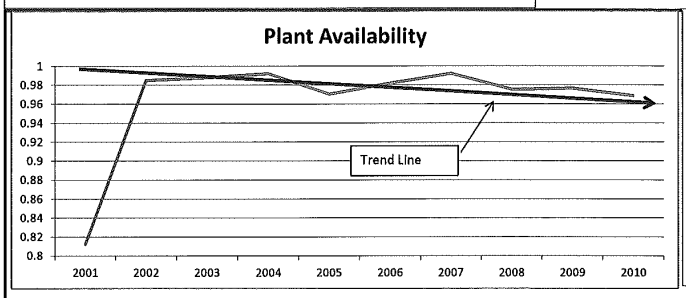
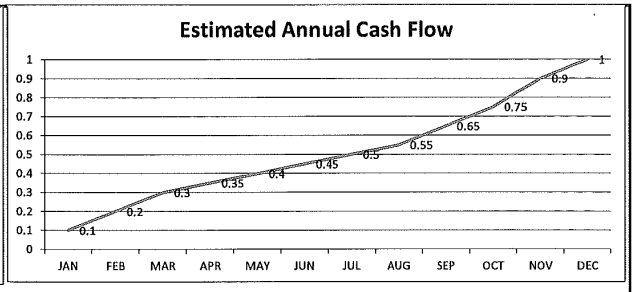
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager





Revision: 2013 Business Case: This project business case is being revised and is requesting additional amounts for the 2013 budget year. The reason for this request is that originally some of the station service and switchyard work was contemplated to be done in future years but with better project planning, we have now determined that we must get a new station service and panel room installed before we start work on the generating units themselves. This results in shifting the unit ugrade work an additionall year.

Another consideration is that some fo the major cost componenets (i.e. turbine runners, generator stators, governors) will not be bid and procurred for a year or so. The actual expected costs could change considerably as we begin to pin down costs of these major items and better determine a more comprehensive scope of work.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-09-2015
C:\Users\vf9457\Desktop\Indexed Business Cases For KKS-5\Generation\GP-05 - Update - Little Falls Plant Upgrade

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Nine Mile Hydroelectric Development Rehabilitation & Modernization

ER No: **ER Name:**
4140 Nine Mile Redevelopment

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 34,502[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	56,567	-	-	-	-	2,000	-	-	-	1,000	-	-	48,323	5,244
2016	9,871	519	79	83	76	79	1	-	34	-	-	-	9,000	
2017	858	-	-	-	-	-	-	-	-	-	-	-	858	

Business Case Description:
This program is to rehabilitate and modernize the 4 unit Nine Mile Hydroelectric Development. This program includes projects to replace Units 1 and 2, which are more than 100 years old. In addition, a new warehouse will be constructed, new tail race gate system will be added, new grounding and communications will be added, a barge landing will be added, a cottage will be removed and another remodeled, a new panel room will be added, Units 3 & 4 will be overhauled and modernized, the powerhouse will be restored, a new access gates and controls will be added and other improvements will be made.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

Investment Name:	**Nine Mile Rehab Program**			
Requested Amount	**$90,913,000**	**Assessments:**		
Duration/Timeframe	8 Year Project	Financial:	14.00%	
Dept.., Area:	GPSS	Strategic:	Generating Plant Modernization	
Owner:	Andy Vickers	Business Risk:	Business Risk Reduction >10 and <= 15	
Sponsor:	Jason Thackston	Project Risk:	High certainty around cost, schedule and resources	
Category:	Project			
Mandate/Reg. Reference:	n/a	Assessment Score:	112	

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is to rehabilitate and modernize the 4 unit Nine Mile HED. This program includes projects to replace Units 1 and 2 which are more than 100 years old and are wore out. In addition, a new warehouse will be constructed, new tail race gate system will be added, new grounding and communications will be added, a barge landing will be added, a cottage will be removed and another remodeled, a new panel room will be added, Units 3 & 4 will be overhauled and modernized, the powerhouse will be restored, a new access gates and controls will be added and other improvements will be made.	increase capacity, energy, and renewable credits. (REC's)	$ 90,913,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Currently both Units 1 and 2 are tagged out of service due to them being mechanically wore out. A FERC license amendment has been received to replace these units.	n/a	$ -	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 10,612,838	$ -	$ -	$ 10,612,838
2013	$ 15,379,000	$ -	$ -	$ 11,399,000
2014	$ 21,505,000	$ -	$ -	$ 26,700,000
2015	$ 10,193,000	$ -	$ -	$ 21,076,917
2016	$ 6,000,000		$ -	$ 8,523,178
2017	$ 13,315,000	$ -	$ -	$ 4,901,639
2018				$ 5,348,169
2019				$ 998,590
Total	$ 66,392,000	$ -	$ -	$ 78,947,493

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2017	Total
4140	$ 15,379,000	$ 21,505,000	$ 10,193,000	$ 6,000,000	$ 13,315,000	$ 66,392,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 15,379,000	$ 21,505,000	$ 10,193,000	$ 6,000,000	$ 13,315,000	$ 66,392,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Generation/Nine Mile Rehab Program

AVISTA

Capital Project Business Case

Contract Labor: ☐ YES ☐ NO

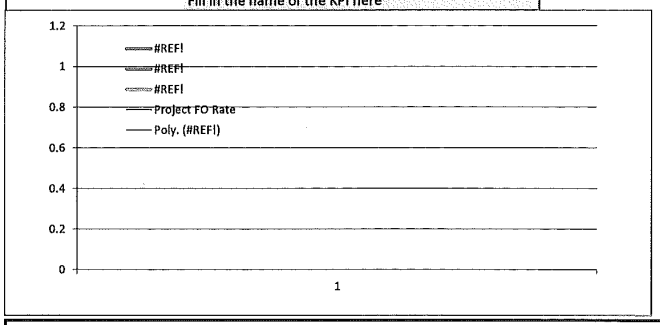
Facilities: ☐ YES - attach form ☐ YES - attach form ☐ NO or Not Required

Fleet: ☐ YES - attach form ☐ NO or Not Required

Capital Project Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Regulating Hydro

ER No: **ER Name:**
4148 Regulating Hydro

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 10,599 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	5,186	-	-	-	-	-	-	-	-	-	-	-	4,136	1,050
2016	3,533	-	-	-	-	-	-	-	-	-	-	-	3,533	
2017	3,533	-	-	-	-	-	-	-	-	-	-	-	3,533	

Business Case Description:
This program is to cover the capital maintenance expenditures required to keep these plants operating at their current performance. The program will work to improve the reliability of these plants so that their value can be maximized in both the energy and ancillary markets. These plants are Long Lake, Little Falls, Noxon Rapids and Cabinet Gorge.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Regulating Hydro
Requested Amount	$3,500,000
Duration/Timeframe	20 Year Program
Dept.., Area:	GPSS
Owner:	Andy Vickers
Sponsor:	Jason Thackston
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	High - Exceeds 12% CIRR
Strategic:	Generating Fleet Modernization
Operational:	Operations improved beyond current levels
Business Risk:	Business Risk Reduction >0 and <= 5
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	88

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is to cover the capital maintenance expenditures required to keep these plants operating at their current performance. The program will work to improve the reliability of these plants so that their value can be maximized in both the energy and ancillary markets. These plants are LL, LF, NR, CG.	describe any incremental changes that this Program would benefit present operations	$ 3,500,000	$ -	$ -	10

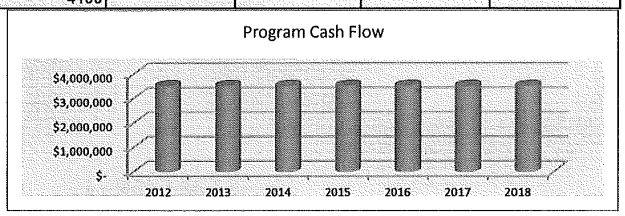
Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	Current work has been done to achieve a relatively high avialability rate for this group of assets. Work has been prioritized according to equipment needs.	n/a	$ 1,890,000	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	We could reduce spending to reduced levels for small decrease in overall availability but reducing ancillary services from plant (i.e. no Cabinet reserves, load following services, etc.)	describe any incremental changes in operations	$ 2,200,000	$ -	$ -	15
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 1,890,000	$ -	$ -	$ 1,890,000
2012	$ 3,500,000	$ -	$ -	$ 2,533,000
2013	$ 3,500,000	$ -	$ -	$ 2,233,000
2014	$ 3,500,000	$ -	$ -	$ 2,833,000
2015	$ 3,500,000	$ -	$ -	$ 3,533,000
2016	$ 3,500,000	$ -	$ -	$ 3,533,000
2017	$ 3,500,000	$ -	$ -	$ 3,533,000
2018	$ 3,500,000	$ -	$ -	$ 3,533,000
2019	$ -	$ -	$ -	$ 3,533,000
Future	$ 3,500,000	$ -	$ -	$ -
Total	$ 29,890,000	$ -	$ -	$ 27,154,000

Associated Ers (list all applicable):

4000	4102			
4003	4103			
4004	4105			
4100				



Mandate Excerpt (if applicable):

Within this program, there are some FERC and NERC mandated items that are included. These are expected to be managed as part of the overll program and are not considered as individual items here.

Additional Justifications:

The magnitude of the value of this program is not evident with the scoring system used. The CIRR calculated for this program is 54.07% for each reduction of 1% in availability. Sustaining this program is very important for this class of assets. While the purpose of this program is to sustain our current level of unit availability for these plants, individually, we have been experiencing a decline in the availability of Little Falls due to aging equipment and failures of that equipment. This is being addressed in a separate project request. Additionally, efforts will be made within this program to improve what is commonly referred to as the ancillary services from these generating assets. This include installing blow down systems to allow for spinning reserves, moving load following demands to all of these plants, voltage regulating needs, etc. This will also include some elements of hydro license compliance as related to plant operations and equipment.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

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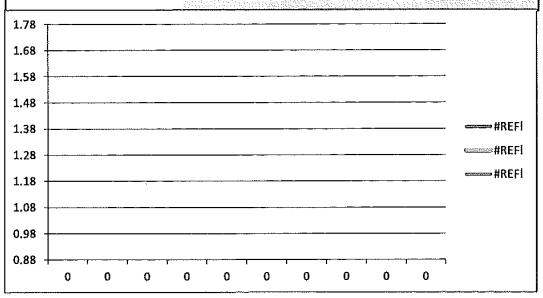
AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure: Availability



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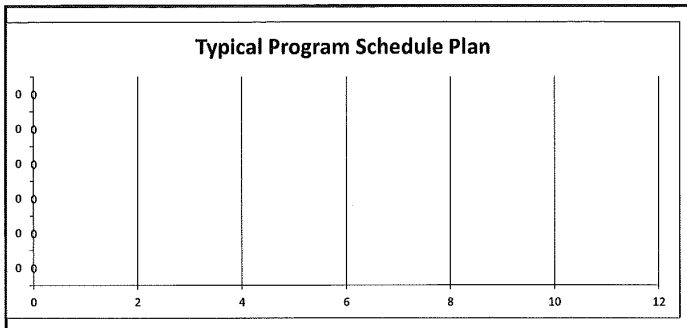
Director/Manager

Other Party Review (if necessary) signature Maggie Stevens
Director/Manager



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Spokane River License Implementation

ER No: **ER Name:**
6107 Spokane River Implementation (PM&E)

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 15,477 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	1,266	39	39	39	39	39	39	39	39	39	39	39	38	805
2016	397	36	36	36	36	36	36	36	36	36	36	37	-	
2017	17,018	43	43	43	43	43	43	43	43	43	43	43	16,544	

Business Case Description:
The Spokane River Project capital projects fulfill FERC's license requirements related to wetlands, water quality, recreation, and land use improvements that will lead to improvements located at Nine Mile, and Lake Spokane (the Long Lake Dam reservoir). The water quality improvements and wetland acquisition and/or enhancements are mandatory conditions included in the License as part of the Washington and Idaho 401 Water Quality Certifications, whereas the recreation and land use projects are FERC's License requirements. This year we will continue modeling a number of potential total dissolved gas remedies for Long Lake Dam, and monitoring low dissolved oxygen (DO) in the tailrace below the dam to determine if the aeration equipment we installed in previous years will sufficiently meet the State's water quality standards. We are also installing additional aeration equipment in the Long Lake Powerhouse to further improve DO in the tailrace. We completed the channel modifications at Upper Falls last fall, which were approved by the Washington Department of Ecology. We will work to complete the required Nine Mile and Lake Spokane recreation projects during this year's construction season.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Spokane River License Implementation**							
Requested Amount	**$2,902,000**	**Assessments:**						
Duration/Timeframe	50 Year Program	Financial:	12.00%					
Dept.., Area:	Environmental	Strategic:	Community vitality					
Owner:	Elvin "Speed" Fitzhugh (Mgr); Bruce Howard (Dir)	Business Risk:	Business Risk Reduction >10 and <= 15					
Sponsor:	Marian Durkin	Program Risk:	Moderate certainty around cost, schedule and resources					
Category:	Mandatory							
Mandate/Reg. Reference:	FERC Project No 2545-091	Assessment Score:	179					

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)**			
		Capital Cost	**O&M Cost**	**Other Costs**	**Business Risk Score**
Implementation of Protection, Mitigation and Enhancement (PM&E) programs related to the FERC License for Project 2545. Includes items enforceable by FERC, mandatory conditioning agencies, and through settlement agreements	n/a	$ 2,902,000	$ -	$ -	8

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)**			
			Capital Cost	**O&M Cost**	**Other Costs**	**Business Risk Score**
Unfunded Program:	We are subject to License enforcement directly from the Federal Energy Regulatory Commission, independent enforcement of certain measures by federal and state agencies under their delegated authorities, and third-party claims by those with whom we entered settlement agreements. We are also subject to citizen lawsuits in certain settings for non-compliance. If the License conditions are not funded, there is the potential for penalties, extensive legal costs, alternative mitigation costs, and/or loss of operation flexibility of the hydro facilities, or the loss of a license to operate in extreme cases.	n/a	$ -	$ -	$ -	20
			$ -	$ -	$ -	8
			$ -	$ -	$ -	0
			$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	**O&M Cost**	**Other Costs**	**Approved**
Previous	$ 3,192,000	$ -		$ 3,192,000
2014	$ 2,902,000	$ 4,315,492		$ 2,232,000

Associated Ers (list all applicable):			
6107			

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Capital Program Business Case

AVISTA

2015	$ 11,262,000	$ 4,443,970	$ -	$ 11,327,900
2016	$ 2,591,000	$ 4,466,092	$ -	$ 3,632,250
2017	$ 529,000	$ -	$ -	$ 516,450
2018	$ 579,000	$ -	$ -	$ 468,250
2019	$ -	$ -	$ -	$ 532,700
2020+	$ -	$ -	$ -	$ -
Total	$ 21,055,000	$ 13,225,554	$ -	$ 21,901,550

ER	2015	2016	2017	2018	2019	Total
6107	$ 11,262,000	$ 2,591,000	$ 529,000	$ 579,000	$ -	$ 14,961,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 11,262,000	$ 2,591,000	$ 529,000	$ 579,000	$ -	$ 14,961,000

Mandate Excerpt (if applicable):

The Federal Energy Regulatory Commission issued a License to Avista Corporation for a period of 50 years, effective June 18, 2008, to operate and maintain the Spokane River Project No 2545-091, which consists of the Post Falls HED, Upper Falls HED, Montroe Street HED, Nine Mile HED and Long Lake HED.

Additional Justifications:

This License defines how Avista shall operate the Spokane River Project and includes several hundred requirements that we must meet to retain this License. Overall, the License is issued pursuant to the Federal Power Act. It embodies requirements of a wide range of other laws, including the Clean Water Act, the Endangered Species Act, the National Historic Preservation Act, among others. These requirements are also expressed through specific license articles (or Protection, Mitigation and Enhancement Measures), relating to fish, terrestrial resources, water quality, recreation, education, cultural, and aesthetic resources at the Project. In addition, the License incorporates requirements specific to a 50 year settlement agreement between Avista, the Department of Interior and the Coeur d'Alene Tribe, which includes specific funding requirements over the term of the License. Avista entered into additional two-party settlement agreements with local and state agencies, and the Spokane Tribe; these agreements also include funding commitments. The License references our requirements for land management, dam safety, public safety and monitoring requirements, which apply for the term of the License.

Resources Requirements: *(request forms and approvals attached)*

Check the appropriate box. The internal and contract

Capital Program Business Case

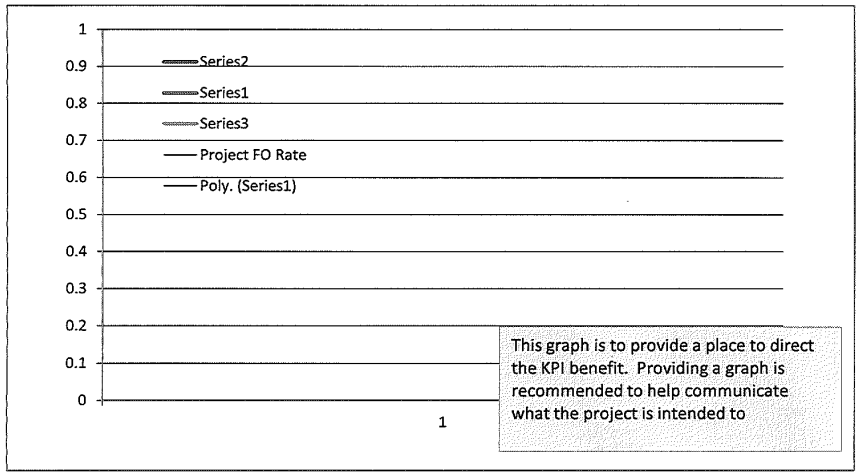
AVISTA

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required	Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required	
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required	
				Fleet:	☐ YES - attach form	☑ NO or Not Required	

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

The Spokane River License is also subject to specified protection, mitigation and enhancement activities and mandatory conditions by the Idaho Department of Environmental Quality (401 Water Quality Certification, issued June 5, 2008), the Washington Department of Ecology (401 Certification, issued on May 8, 2009), the US Forest Service (Federal Power Act 4(e), issued May 4, 2007), the US Department of Interior (Federal Power Act 4(e), issued January 27, 2009), and articles set forth in Form L-1 (entitled "Terms and Conditions of License for Constructed Major Project Affecting Lands of the United States").

To be completed by Capital Planning Group

Rationale for decision	Review Cycles

Capital Program Business Case

	2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Base Load Thermal Plant

ER No: **ER Name:**
4149 Base Load Thermal

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 6,600 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,200	-	-	-	-	-	-	2,200	-	-	-	-	-
2016	2,200	-	-	-	-	-	-	2,200	-	-	-	-	-
2017	2,201	-	-	-	-	-	-	2,201	-	-	-	-	-

Business Case Description:
This program is necessary to sustain or improve the existing operating costs of Coyote Springs 2, Colstrip, and Kettle Falls. Work includes replacement of items identified through asset management decisions and programs necessary to maintain reliable and low operating costs of these plants. As this program proceeds, it is expected that forced outage rates and forced de-rates of these facilities will decrease to a level one standard deviation less than current average.

Offsets:

There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Base Load Thermal Plant		
Requested Amount	$6,500,000	**Assessments:**	
Duration/Timeframe	ongoing Year Program	Financial:	High - Exceeds 12% CIRR
Dept.., Area:	GPSS / Power Supply	Strategic:	Generating Fleet Modernization
Owner:	Andy Vickers	Operational:	Operations require execution to perform at current levels
Sponsor:	Jason Thackston	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	94

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is necessary to sustain or improve the existing operating costs of these major Base Load generating stations. This program is specifically for Coyote Springs 2, Colsstrip, Kettle Falls, and Lancaster. Work includes replacement of items identified through asset management decisions and programs necessary to maintain reliable and low operating costs of these plants. As this program proceeds, it is expected that forced outage rates and forced derates of these facilities will decrease to a level one standard deviation less than current average resulting in more economic benefits of the project.	This will improve the forced outage rate for these plants by an overall 0.1%	$ 2,200,000	$ -	$ -	8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	These plants continue to age and their economic performance has degraded over time. These degrades have been offset with work that is included in a program like this. Currently, each plant is manged independent of the other,	n/a	$ -	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	The program can be reduced in amount and effectiveness in accomplishing the Goal	current trend would be reduced.	$ 5,500,000	$ -	$ -	10
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 6,520,910	$ -	$ -	$ 6,520,910
2012	$ 6,500,000	$ -	$ -	$ 6,877,000
2013	$ 6,500,000	$ -	$ -	$ 7,500,000
2014	$ 6,500,000	$ -	$ -	$ 2,300,000
2015	$ 6,500,000	$ -	$ -	$ 2,200,000
2016	$ 6,500,000	$ -	$ -	$ 2,200,000
2017	$ 6,500,000	$ -	$ -	$ 2,200,000
2018	$ 6,500,000	$ -	$ -	$ 2,200,000
2019	$ -	$ -	$ -	$ 2,200,000
Future	$ 6,500,000	$ -	$ -	$ -
Total	$ 58,520,910	$ -	$ -	$ 34,197,910

Associated Ers (list all applicable):

Current ER	4148

Mandate Excerpt (If applicable):

Within the program there are a number of regulatory mandates for air emissions and monitoring that must be complied with. In addition there numerous NERC requirements that must be met. These mandates are included within the amount listed above.

Additional Justifications:

As these plants degrade, we expose ourselves to an increasing forced outage rates and must acquire replacement energy and capacity from the market. This can leave use with significant exposure for shareholders in a particular year.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form ☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form ☑ NO or Not Required
				Capital Tools:	☐ YES - attach form ☑ NO or Not Required
				Fleet:	☐ YES - attach form ☑ NO or Not Required

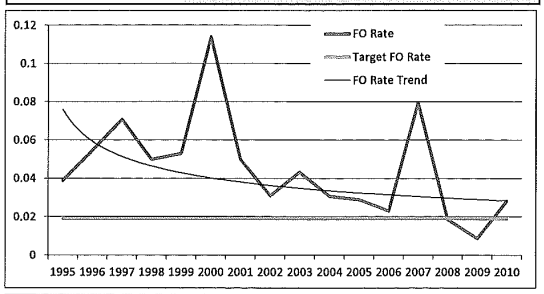
Capital Investment Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Forced Outage Rate



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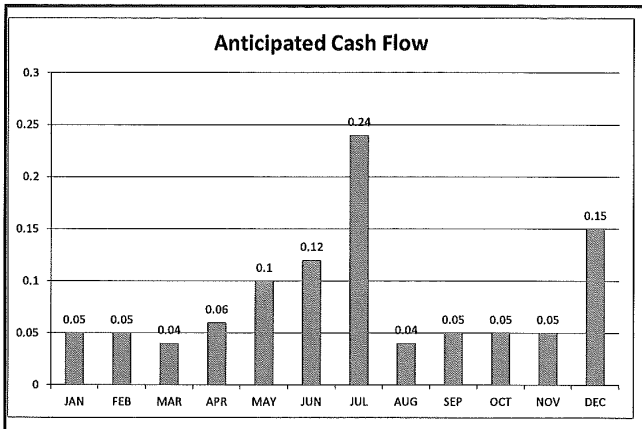
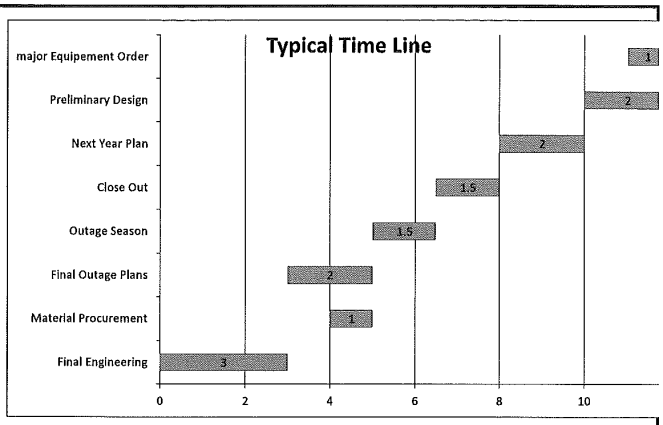
Director/Manager

Other Party Review signature Margi Stevens
(if necessary) Director/Manager





To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Peaking Generation

ER No: **ER Name:**
4150 Peaking Generation

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	501	-	-	-	-	-	-	500	-	-	-	-	-	1
2016	500	-	-	-	-	-	-	500	-	-	-	-	-	
2017	500	-	-	-	-	-	-	500	-	-	-	-	-	

Business Case Description:
This program is to cover the capital maintenance expenditures required to keep the gas fired peaking units (Boulder Park, Rathdrum and Northeast Combustion Turbine) operating at or above their current performance. The program will focus on maximizing ability of these units to start and run when demanded (starting reliability).

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Peaking Generation**
Requested Amount	**$ 500,000**
Duration/Timeframe	10 Year Program
Dept.., Area:	GPSS
Owner:	Andy Vickers
Sponsor:	Jason Thackston
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:

Financial:	12.53%
Strategic:	Generating plant performance
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	93

Recommend Program Description:

This program is to cover the capital maintenance expenditures required to keep the gas fired peaking units operating at or above their current performance. The program will focus on maximizing ability of these units to start and run when demanded (starting reliability). These plants include BP, RCT, NECT.

Performance	Annual Cost Summary - Increase/(Decrease)			
	Capital Cost	O&M Cost	Other Costs	Business Risk Score
By expending these funds, the start reliability for these assets will be improved.	$ 500,000	$ -	$ -	6

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease)			
			Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	The overall reliability of all of these assets will decline, resulting in non-starts, non-compliant emissions, and inoperable resources	n/a	$ -	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	6
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 500,000	$ -	$ -	$ 200,000
2015	$ 500,000	$ -	$ -	$ 500,000
2016	$ 500,000	$ -	$ -	$ 500,000
2017	$ 500,000	$ -	$ -	$ 500,000
2018	$ 500,000	$ -	$ -	$ 500,000
2019	$ 500,000	$ -	$ -	$ 500,000

Associated Ers (list all applicable):

Capital Program Business Case

AVISTA

2020+	$ 2,500,000	$ -	$ -	$ -
Total	$ 5,500,000	$ -	$ -	$ 2,700,000

ER	2015	2016	2017	2018	2019	Total
4150	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 2,500,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 2,500,000

Mandate Excerpt (if applicable):

Within this program, there are some FERC and NERC mandated items that are included. These are expected to be managed as part of the overll program and are not considered as individual items here.

Additional Justifications:

With wind and other renewables coming on line, there has been an increase in the amount of times that these units have been called on. The value of these units may not be reflected with this new market. Also, the analysis used currently does not contemplate the emergency reserve power value of these units. There are times when energy is unavailable from other sources and the spot price of energy can exceed $500/MWh or more. ($50 - $80/MWh being normal). This risk is somewhat modeled in the

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO

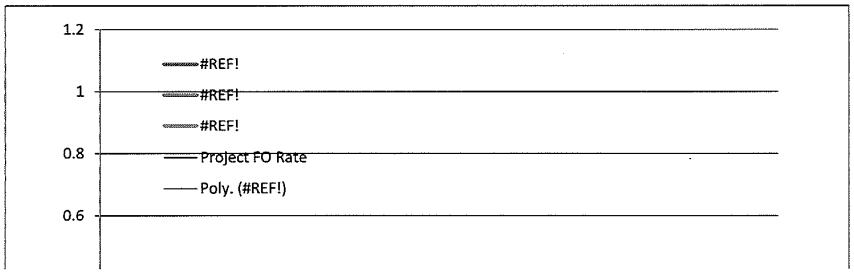
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margi Stevens

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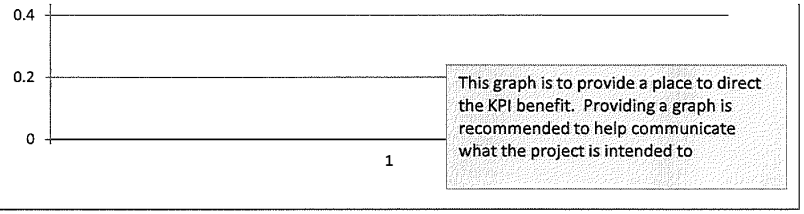


(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

Capital Program Business Case

Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Kettle Falls Generating Facility ("KFGS") Water Supply

ER No: **ER Name:**
4151 Kettle Falls Develop New River Wells

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 0 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	1,529	-	-	-	-	-	-	-	-	-	-	-	-	1,529
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
KFGS receives its water from the City of Kettle Falls from an agreement that dates back to the construction of the plant in the early 1980's. That agreement will expire next year and future rates will be higher, affecting the costs of the plant. This effort is to secure necessary water rights and a long-term water supply for the plant that is controlled by the Company.

Offsets:
From the time the plant went into service, water supply for the plant has come from the City of Kettle Falls. When completed, this project will allow us to move off the City water system as we will have our own water supply. This will reduce the amount we pay for water, resulting in an offset. We estimate that the net savings in 2015 will be $19,000 on a total system basis, with $6,705 allocated to Idaho.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

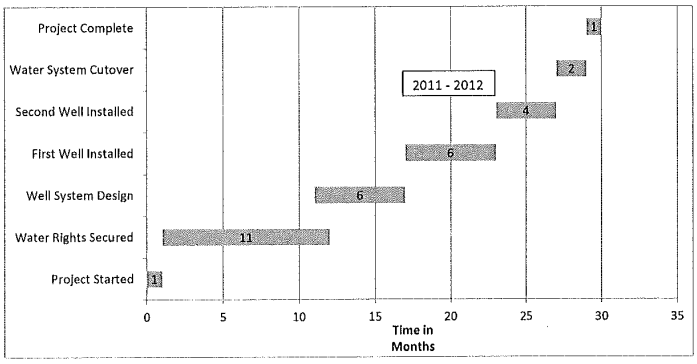
Capital Investment Business Case

Investment Name:	**Kettle Falls Water Supply**		
Requested Amount	**$1,500,000**	**Assessments:**	
Duration/Timeframe	1 Year Project	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	GPSS	Strategic:	Reliability & Capacity
Owner:	Andy Vickers	Operational:	Operations require execution to perform at current levels
Sponsor:	Jason Thackston	Business Risk:	ERM Reduction >5 and <= 10
Category:	Project	Project/Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
KFGS receives its water from the City of Kettle Falls from an agreement that dates back to the construction of the plant in the early 1980's. That agreement will expire next year and future rates will be higher - impacting the costs of the plant. This effort is to secure necessary water rights and a long term water supply for the plant that is controled by the company.	This will not affect current plant performance	$ 850,000	$ (18,750)	$ -	0

Alternatives:		Performance	Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	This is not an option, the agreement will expire next year so either a higher rate will result or a new source will need to be developed.	n/a	$ -	$ 18,750	$ -	0
Alternative 1: Brief name of alternative (if applicable)	This project is to develop a two pump system so that if a pump fails, we would still have water to operate the plant. We could eliminate this pump and risk a forced outage on a water pump failure.	increases risk of a forced outage	$ 1,700,000	$ (18,750)	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 151,837	$ -	$ -	$ 151,837
2012	$ 1,500,000	$ -	$ -	$ 1,500,000
2013	$ 600,000	$ -	$ -	$ 460,000
2014	$ -	$ -	$ -	$ 1,050,000
2015	$ -	$ -	$ -	$ -
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 2,251,837	$ -	$ -	$ 3,161,837

Milestones (high level targets)

September-09	Project Started	July-12	Water System Cutover
October-10	Water Rights Secured	August-12	Project Complete
June-11	Well System Design		
March-12	First Well Installed		
June-12	Second Well Installed		

Associated Ers (list all applicable): 4151

Mandate Excerpt (if applicable): n/a

Additional Justifications:

Water rights have been procurred but are currently being carried in suspense on this project. $800,000 of the $1,500,000 are in this acount. Work to develop the first well was begun in 2011 and continues through the first quarter of 2012. In addition, this item includes an estimated $300,000 to procure additional water rights to guarentee adequate water for the future. Actual cash expected for 2012 is $700,000

AVISTA

Capital Investment Business Case

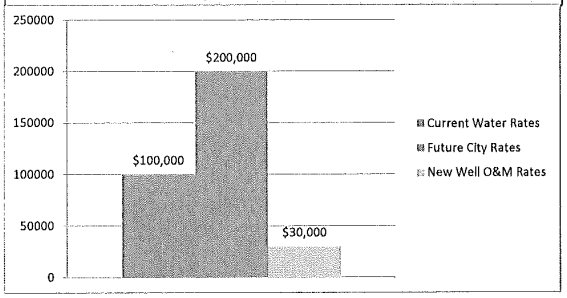
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure: Water Rate



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Colstrip Thermal Capital

ER No: **ER Name:**
4116 Colstrip Capital Additions

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 22,594 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,497	40	40	60	70	80	120	120	110	110	90	80	1,580
2016	10,480	352	352	529	617	2,373	1,057	1,057	969	969	793	705	705
2017	9,617	385	385	577	673	769	1,154	1,154	1,058	1,058	866	769	769

Business Case Description:
This program is for ongoing capital expenditures associated with normal outage activities on Units 3 & 4 at Colstrip. Every 2 out of 3 years we have outages at Colstrip with higher capital program activities. For non-outage years, the program activities are reduced. Avista votes its 15% share of Unit's 3 & 4 and its approximate 10% share of common facilities to approve or disapprove of the budget proposed by PPLM on behalf of all the owners. Individual projects are reviewed for appropriate rates of return and necessity.

Offsets:

There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Colstrip 3&4 Capital**			
Requested Amount	**Estimated Total Capital Expenditure**	**Assessments:**		
Duration/Timeframe	5+ Year Program	Financial:	10.00%	
Dept.., Area:	Power Supply	Strategic:	None	
Owner:	Scott Kinney	Business Risk:	Business Risk Reduction - None	
Sponsor:	Jason Thackston	Program Risk:	Low certainty around cost, schedule and resources	
Category:	Program			
Mandate/Reg. Reference:	n/a	Assessment Score:	29	

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)**			
		Capital Cost	**O&M Cost**	**Other Costs**	**Business Risk Score**
This program is for ongoing capital expenditures associated with normal outage activities on Units 3 & 4 at Colstrip. Every 2 out of 3 years we have outages at Colstrip with higher capital program activities. For non-outage years, the program activities are reduced. Avista votes its 15% share of Unit's 3 & 4 and its approximate 10% share of common facilities to approve or disapprove of the budget proposed by PPLM on behalf of all the owners. Individual projects are reviewed for appropriate rates of return and necessity.	These programs are required for contiuned operation of units 3&4	$ 7,420,000	$ -	$ -	0

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)**			
			Capital Cost	**O&M Cost**	**Other Costs**	**Business Risk Score**
Unfunded Program:	Generally speaking, we can only vote our small share. We do not have the option of unilaterally rejecting the proposed capital projects. We would have to sell our portion of the plant to escape funding these projects.	n/a	$ -	$ -	$ 50,000,000	0
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 7,414,223	$ -	$ -	$ 7,376,833
2015	$ 3,176,850	$ -	$ -	$ 4,121,100
2016	$ 6,054,849	$ -	$ -	$ 8,856,000
2017	$ 7,486,699	$ -	$ -	$ 9,616,800
2018	$ 2,232,750	$ -	$ -	$ 3,669,750
2019	$ -	$ -	$ -	$ 14,173,800

Associated Ers (list all applicable):			
4116			
7130			

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AVISTA

Capital Program Business Case

Total	$ 26,365,371	$ -	$ -	$ 47,814,283

ER	2014	2015	2016	2017	2018	Total
4116	$ 7,414,223	$ 3,176,850	$ 6,054,849	$ 7,486,699	$ 2,232,750	$ 26,365,371
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
7130	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,414,223	$ 3,176,850	$ 6,054,849	$ 7,486,699	$ 2,232,750	$ 26,365,371

Mandate Excerpt (if applicable):

We have limited input. This provides somewhat of a mandate. Also, this program is a "rollup" of many categories of capital work. Many are, in fact mandated by EPA and other regulatory bodies.

Additional Justifications:

These projects are revied individually by PPL and the remaining members of the committee. Joint approval is given only where need and/or shareholder/ratepayer needs meet the proper thresholds.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probablity
Contract Labor: ☐ YES ☑ NO

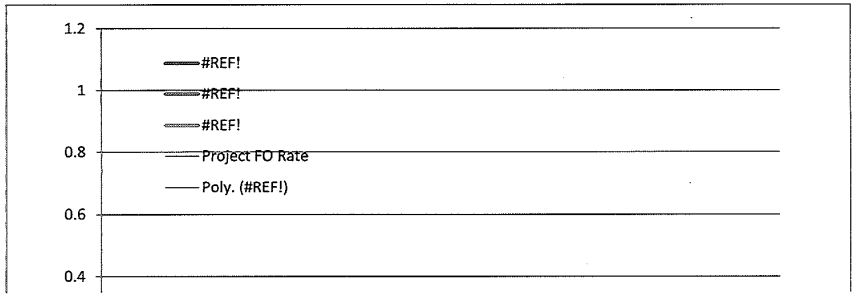
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

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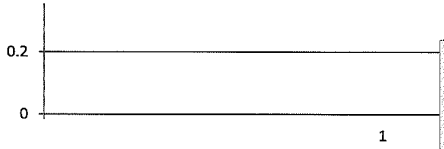


This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

Capital Program Business Case

	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Coyote Springs Long-Term Service Agreement ("LTSA")

ER No:	**ER Name:**
4143	CS2 LTSA Cash Accrual
4142	CS2 LTSA Cash Add

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 2,200 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	2,000	-	-	500	-	-	500	-	-	500	-	-	500
2017	730	-	-	183	-	-	183	-	-	183	-	-	183

Business Case Description:
This program is to cover the capital accruals required to execute our Long-Term Service Agreement (LTSA) with General Electric for Coyote Springs Unit 2. This is the same as the current LTSA item. This program will have fluctuations in expenditure to account for the variable operating hours and operating conditions that feed into the LTSA formula.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Coyote Springs LTSA		
Requested Amount	$650,000	Assessments:	
Duration/Timeframe	5+ Year Program	Financial:	High - Exceeds 12% CIRR
Dept.., Area:	Power Supply	Strategic:	Life Cycle Programs
Owner:	Thomas Dempsey/Scott Kinney	Operational:	Operations require execution to perform at current levels
Sponsor:	Jason Thackston	Business Risk:	ERM Reduction >0 and <= 5
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is to cover the capital accruals required to execute our LTSA with GE for Coyote Springs Unit 2. This is the same as the current LTSA item. This program will have fluctuations to account for the variable operating hours and operating conditions that feed into the LTSA formula.	This program assures best response times to outages and forced outages	$ 650,000	$ -	$ -	10

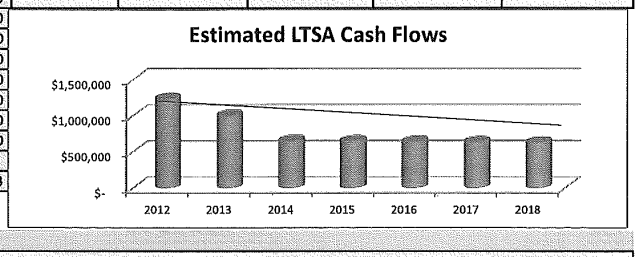
Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	This is a contract with GE to provide the necessary services, parts, and labor to maintain the Frame 7EA gas turbine. This is the major component of the Coyote Springs Unit 2 combined cycle plant (CCCT).	n/a	$ 650,000	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	none	n/a	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 10,000	$ -	$ -	$ 10,000
2012	$ 1,232,735	$ -	$ -	$ 2,231,043
2013	$ 998,299	$ -	$ -	$ 1,000,000
2014	$ 649,943	$ -	$ -	$ 711,000
2015	$ 644,712	$ -	$ -	$ 740,000
2016	$ 639,324	$ -	$ -	$ 730,000
2017	$ 633,775	$ -	$ -	$ 730,000
2018	$ 628,058	$ -	$ -	$ 720,000
2019	$ -	$ -	$ -	$ 710,000
Future	$ 2,451,565	$ -	$ -	$ -
Total	$ 7,888,412	$ -	$ -	$ 7,582,043

Associated Ers (list all applicable): 4143



Mandate Excerpt (if applicable):

n/a

Additional Justifications:

This LTSA is a contractual agreement between Avista and GE.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

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AVISTA

Capital Investment Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Unit Availability

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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Hydro – Noxon Spare Coils

ER No: **ER Name:**
4166 Noxon Rapids HED Spare Coils

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 660 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,350	-	-	-	-	1,350	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
This project is to replace the spare coils that were used last spring to repair the stator winding that failed for Unit 4. This item will procure 100 spare coils. These spares cover Units 1 through 4 (Unit 5 is different). Because we had spares on hand, we were able to return Unit 4 to normal service within 11 weeks. Without these spares, the unit would have been out for 9 months or more. Prices for coils supplied under emergency conditions would likely carry a 30% premium. This project does not include any installation, only replacing stock that we had previously.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	Noxon Spare Coils		
Requested Amount	Estimated Total Capital Expenditure	**Assessments:**	
Duration/Timeframe	1 Year Project	Financial:	8.54%
Dept.., Area:	GPSS	Strategic:	Reliability & Capacity
Owner:	Andy Vickers	Business Risk:	Business Risk Reduction >0 and <= 5
Sponsor:	Jason Thackston	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	88

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This project is to replace the spare coils that were used last spring to repair the stator winding that failed for Unit 4. This item will procure 100 spare coils. These spares cover Units 1 through 4 (Unit 5 is different). Because we had spares on hand, we were able to return Unit 4 to normal serivce within 11 weeks. Without these spares, the unit would have been out for 9 months or more. Prices for coils supplied under emergency conditions would likely carry a 30% preimium. This project does not include any installation, only replacing stock that we had previously.	describe any incremental changes that this Project would benefit present operations	$ 1,350,000	$ -	$ -	3

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Should we not have adequate spare coils on hand, we would risk a significanly longer forced outage (at least 6 months) and a much higher cost (30% premium).	n/a	$ 2,100,000	$ -	$ 165,484	4
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	3
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 1,350,000	$ -	$ -	$ 1,350,000
2015	$ -	$ -	$ -	$ -
2016	$ -	$ -	$ -	$ -
2017+	$ -	$ -	$ -	$ -
Total	$ 1,350,000	$ -	$ -	$ 1,350,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2017+	Total
TBD	$ -	$ 1,350,000	$ -	$ -	$ -	$ 1,350,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 1,350,000	$ -	$ -	$ -	$ 1,350,000

Mandate Excerpt (If applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

After some discussion, it was determined to procure 100 coils in order to have an adequate supply in case of multi coil falures. We had a single point failure and consumed 34 of our spares. It was estimated that if we had two coils failr, we would consume 3X that number and may not have enough to effect repairs as hoped.

Milestones (high level targets)

September-14	Spare Coils Received	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☐ High Probability
Contract Labor: ☑ YES ☐ NO

Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required

Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

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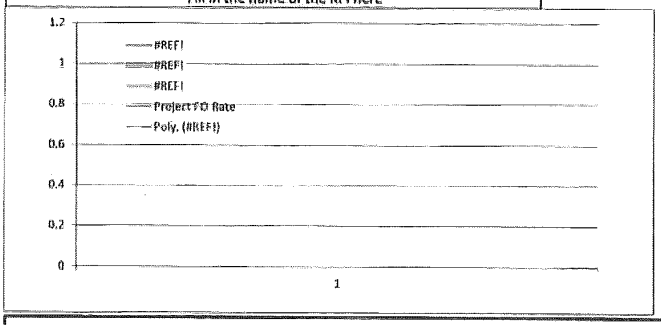
Capital Project Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Other Party Review signature
(if necessary)
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 11/14/2013

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Post Falls South Channel Gate Replacement

ER No: **ER Name:**
4162 PF S Channel Gate Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,570 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	9,309	-	-	-	-	11,008	-	-	-	-	-	-	-	(1,699)
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
Avista had planned to maintain the south channel gates to comply with FERC Dam Safety directives. When a pre-construction underwater investigation was done, it was discovered that the condition of the concrete structure was very poor and would not handle the planned work. This project includes an engineering investigation into options and project estimates. It is anticipated that much of the existing concrete structure will be removed and replaced with a new concrete structure, new gates and hoist systems to automate the operation.

Offsets:
The attached business case shows O&M Offsets of $5,000 in 2015. After further discussion, it was determined that these savings are related to employee labor that will be redistributed to other projects and do not result in a reduction to overall labor expense.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Post Fall South Channel Replacement
Requested Amount	Estimated Total Capital Expenditure
Duration/Timeframe	3 Year Project
Dept.., Area:	GPSS
Owner:	Andy Vickers
Sponsor:	Jason Thackston
Category:	Mandatory
Mandate/Reg. Reference:	CFR Title 18, Chapter I, Subchapter B, Part 12

Assessments:	
Financial:	0.00%
Strategic:	Generating Plant Modernization
Business Risk:	Bussiness Risk Reduction >0 and <= 5
Project Risk:	High certainty around cost, schedule and resources
Assessment Score:	55

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Avista had planned to maintain the south channel gates to comply with FERC Dam Safety directives. When a pre-construction underwater investigation was done, it was discovered that the condition of the concrete structure was very poor and would not handle the planned work. This has resulted in an effort to evaluate options. This item includes an engineering investigation into options and project estimates. It is anticipated that much of the existing concrete structure will be removed and replaced with a new concrete structure, new gates and hoist systems to automate the operation.	Gate operations would be automated.	$ 11,008,000	$ (5,000)		5

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	We are currently under a FERC Dam Safety directive to correct problems on the existing gates and structure. We have deferred these costs for several years and are in the process of requesting additional delays of mandated work.	n/a	$ -	$ -	$ -	20
Alternative 1: Brief name of alternative (if applicable)	At the time this case is being submitted, no alternatives are known.	describe any incremental changes in operations	$ -	$ -	$ -	5
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 63,830	$ -	$ -	$ 63,830
2013	$ 950,000	$ -	$ -	$ 1,119,000
2014	$ 1,920,000	$ -	$ -	$ 6,444,000
2015	$ -	$ -	$ -	$ 1,570,000
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
Total	$ 2,870,000	$ -	$ -	$ 9,133,000

Associated Ers (list all applicable):

new

ER	2013	2014	2015	2016	2017	Total
new	$ 960,000	$ 1,950,000	$ -	$ -	$ -	$ 2,910,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 960,000	$ 1,950,000	$ -	$ -	$ -	$ 2,910,000

Mandate Excerpt (if applicable):

CFR 18.I.B.Part 12; 2007 FERC Inspection Report, July 10, 2007 Letter to FERC with Plan and Schedule; 2011 FERC Inspection Report and Part 12 Report Recommendation and August 13, 2012 letter to FERC requesting extension

Additional Justifications:

The sequence of correspdondence described above presents the highligts of discussions. This project has also been discussed at numerous meetings and inspections with FERC Dam Safety Inspectors and the FERC Regional Engineer. Expectation of addressing gate structural concerns on this structure are well understood.

Milestones (high level targets)

September-12	Project Kick-Off	December-14	Construction Complete	January-13	open
March-13	Design Basis Complete	March-12	Project Closed Out	January-13	open
July-13	Gate Supply Bids Out	January-13	open	January-13	open
September-13	Gate Supply Awared	January-13	open	January-13	open
January-14	Issue Construction RFP	January-13	open	January-13	open
May-14	Installation Contract Awarded	January-13	open	January-13	open

Milestones should be general. Use your judgement on project progress so that progress can be measured. Provide at least three milestones per year

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☑ Medium Probability ☐ High Probablity
Contract Labor: ☑ YES ☐ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

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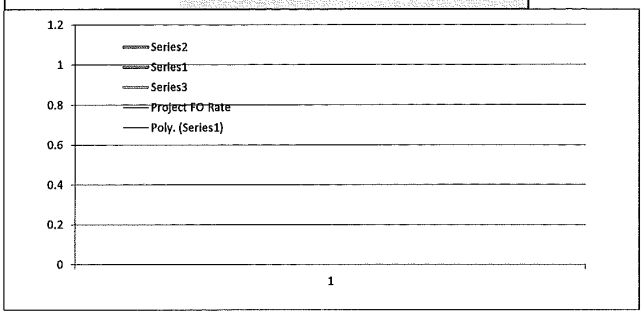
C:\Users\vf19457\Desktop\Indexed Business Cases For KKS-5\Generation\GP-15 - Update - Post Fall's South Channel Gate Rebuild

AVISTA

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure:	FERC Mandate



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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

Because of the timing of the discovery of the concrete condition, the initial budget estimate was made very quickly within a two week time period which did not allow for much investiagation of what would be needed for the project. As a result, the original requiest has been increased as we have learned about the needed work to address this issue.

Additional Information: The original plan had contemplated a single spillgate in place of the current six gates, expecting to reduce construction costs. However, upon further scoping work, it was determined that going to a single gate design would require removal of six post tension anchors that were installed in the 1990's for dam stability. This forced a change in scope to include six gates, increaseing the cost.

Also, the project will now require a cofferdam to facilitate the necessary construction. That along with the access improvements needed to perform the site construction have also increased the cost over the original estimate.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Cabinet Gorge Unit 1 Refurbishment

ER No: **ER Name:**
4161 CG HED U#1 Refurbishment

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 4,900 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	11,687	-	-	-	-	-	11,400	-	-	-	-	-	-	287
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
This is the Capital portion of a major overhaul project planned for Cabinet Gorge Unit 1. The runner hub has significant issues, and will need to be upgraded to allow for frequent cycling with integration of intermittent resources. The present automatic voltage regulator has relatively slow response due to its hybrid design. It also has no limiters for generator protection. A new system will improve both of these. The machine monitoring will allow for better analysis of the machine condition for this critical unit. New protective relays will be installed and new controls will be integrated with the project to replace the failing Bailey NET90 system. Rehab of this unit will also allow flexibility around minimum flow for fish habitat.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Cabinet Gorge Unit 1 Refurbishment_Rehab**		
Requested Amount	**Estimated Total Capital Expenditure**	**Assessments:**	
Duration/Timeframe	3 Year Project	Financial:	9.24%
Dept.., Area:	GPSS	Strategic:	Generating Plant Modernization
Owner:	Andy Vickers	Business Risk:	Bussiness Risk Reduction >5 and <= 10
Sponsor:	Jason Thackston	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	98

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This is the Capital portion of a major overhaul project planned for Cabinet Gorge Unit 1. The runner hub has significant issues, and will need to be upgraded to allow for frequent cycling with integration of intermittent resources. The present AVR is relatively slow response due to its hyrbid design. It also has no limiters for generator protection. A new system will improve both of these. The machine monitoring is to allow for better analysis of machine condition for this critical unit. New protetive relays are to be installed and new controls will be integrated with the project to replace the failing Bailey NET90 system. Rehab of this unit will also allow flexibility around minimum flow for fish habitat.	Better voltage control and response for blackstart (NERC), predictable rewind timing	$ 11,400,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	The unit will continue to deteriorate, and we will miss the opportunity of being able to run the plant at 3,000cfs, losing considerable flexibility	n/a	$ -	$ 1,550,027	$ -	12
Alternative 1: Install IRIS Monitoring System Only	Most critical is to install a Partial Discharge Monitoring system to better assess the condition of the generator winding to assist in rewind timing. The unit is also in need of rewedge & reinsulation of the field windings	none	$ 949,000	$ 868,026	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 330,000	$ -	$ -	$ -
2013	$ 5,172,658	$ -	$ -	$ 1,300,000
2014	$ 3,394,638	$ -	$ -	$ 5,500,000
2015		$ -	$ -	$ 4,900,000
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
Total	$ 8,567,296	$ -	$ -	$ 11,700,000

Associated Ers (list all applicable):

none

ER	2013	2014	2015	2016	2017	Total
none	$ 5,172,658	$ 3,394,638	$ -	$ -	$ -	$ 8,567,296
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 5,172,658	$ 3,394,638	$ -	$ -	$ -	$ 8,567,296

Mandate Excerpt (if applicable):

not applicable

Additional Justifications:

The present AVR is a hybrid design that utilized the rotating exciter equipment. When we perform blackstart testing, the relatively slow response of the AVR system does not allow the unit to maintain a stable voltage output to energize transmission lines and other loads. A new fast response system will remedy this dilema. New Relays, Unit Control System, and other equipment replacements will be performed to update this machine to modern standards.

Milestones (high level targets)

October-12	Project Start	September-13	Discharge Ring installation	January-14	open
November-12	Basis of Design	October-13	Runner delivered to site	November-14	open
December-12	AVR Ordered	November-14	Runner installation	January-15	open
March-13	Monitoring Equipment Ordered	January-14	Installation Completion	April-15	open
July-13	Final Design	March-14	Machine in Service	April-15	open
September-13	Equipment Delivered to Site	Septebmer -14	open	January-13	open

Milestones should be general. Use your judgement on project progress so that progress can be measured. Provide at least three milestones per year

Resources Requirements: *(request forms and approvals attached)*

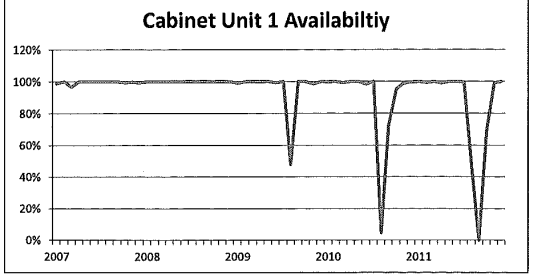
Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☐ YES ☑ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Generation/Cabinet Unit 1 Rehab

AVISTA

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure:	Unit Aviailability
	Cabinet Unit 1 Availability



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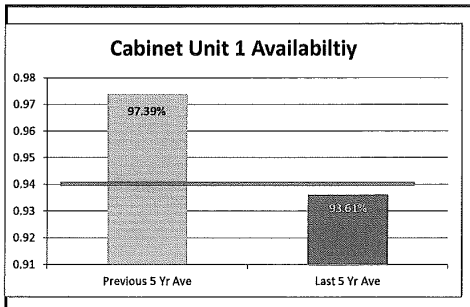
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager



Some other explanation of the chart included above is that you can see that we are experiencing increasing outages over time to address the problems with the unit. These outages are generally increasing over time.

The monitoring system is intended to help us capture when a major outage is likely to occur and then plan accordingly. An asset management study has shown the benefits of a monitoring system that we can use to predict when we should plan for major events rather than perform the work after failure.

The chart at the left shows the decreasing availability that has been experienced over the past ten years due to mechanical problems with the unit. Doing this capital project at the same time as the major maintenance wil improve future availability as this will not be needed again.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Cabinet Gorge Automation Replacement

ER No: **ER Name:**
4163 CG HED Automation Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 2,842 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	2,842	-	-	-	-	-	-	-	-	-	-	-	2,842

Business Case Description:
This project is to replace the unit and station service control equipment at Cabinet Gorge with a system compatible with Avista's current standards. The Bailey Net 90 equipment that is installed currently is obsolete because replacement of the system can only be done through secondary and salvage markets. In addition, the current system does not provide enough inputs and outputs that allow implementation of standard unit control and monitoring schemes. This work will replace the existing panel and control systems with a new system. The scope of work has expanded to include replacement governors, voltage regulators, and protective relays.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	**Cabinet Gorge Automation Replacement**		
Requested Amount	**$2,941,000**	**Assessments:**	
Duration/Timeframe	6 Year Project	Financial:	7.00%
Dept.., Area:	GPSS	Strategic:	Generating Plant Modernization
Owner:	Andy Vickers	Business Risk:	Bussiness Risk Reduction >0 and <= 5
Sponsor:	Jason Thackston	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	80

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This for a request to start in 2014. This project is to replace the unit and station service control equipment with a system compatable with our current standards. The Bailey Net 90 equipment that is installed currently is obsolete in that replacement of the system can only be done through secondary and salvage markets. In addition, the current system does not provide enough inputs and outputs that allow us to implement our standard unit control and monitoring schemes. This work will replace the existing panel and control systems with a new system. The scope of work has been expanded to include replacement governors, voltage regulators, and protective relays.	Operational reliability will be improved. Better monitoring from staff will be available.	$ 99,000	$ -	$ -	5

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	The present system is old and we a very limited number of spares should components start to fail. We also don't have ability to monitor and control the machine consistent with our current practices. Failure to address this will result in an increase in forced outages, but it would be modest.	n/a	$ -	$ -	$ -	6
Alternative 1: Brief name of alternative (if applicable)	Include AVR replacement as part of this project. This would increase the cost and scope of the project but would minimize additional future outages. The effect of this would be to add about $350,000 per year or this work.	describe any incremental changes in operations	$ -	$ -	$ -	5
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 99,000	$ -	$ -	$ -
2015	$ 500,000	$ -	$ -	$ 500,000
2016	$ 616,000	$ -	$ -	$ 616,000
2017	$ 1,726,000	$ -	$ -	$ 1,726,000
2018				$ -
Total	$ 2,941,000	$ -	$ -	$ 2,842,000

Associated Ers (list all applicable):			
none			

ER	2013	2014	2015	2016	2017	Total
none	$ -	$ 99,000	$ 500,000	$ 616,000	$ 1,726,000	$ 2,941,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 99,000	$ 500,000	$ 616,000	$ 1,726,000	$ 2,941,000

Mandate Excerpt (if applicable):

not applicable

Additional Justifications:

The technology currently used at Cabinet Gorge is 1990 vintage and is marginally supported. We have been removing these system from service methodically over the past few years. Further, the control scheme at Cabinet is unessarily complicated because of the combination of manual, semi-automatic, and automatice control schemes being in place on each unit. This makes troubleshooting difficutl.

Milestones (high level targets)

May-14	Project Starts	August-16	First Unit Out of Service	August-19	First Unit Out of Servic
October-14	Basis of Design	December-16	First Unit Returned to Service	December-19	First Unit Returned to S
February-15	Preliminary Deisgn Complete	August-17	First Unit Out of Service	January-13	open
June-15	Panels Ordered	December-17	First Unit Returned to Service	January-13	open
August-15	Final Design Started	August-18	First Unit Out of Service	January-13	open
February-16	Final Design Completed	December-18	First Unit Returned to Service	January-13	open

Milestones should be general. Use your judgement on project progress so that progress can be measured. Provide at least three milestones per year

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☐ High Probablity
Contract Labor: ☐ YES ☐ NO

Enterprise Tech: ☐ YES - attach form ☐ NO or Not Required
Facilities: ☐ YES - attach form ☐ NO or Not Required

Capital Tools: ☐ YES - attach form ☐ NO or Not Required
Fleet: ☐ YES - attach form ☐ NO or Not Required

Printed: 5/15/2015
http://sharepoint/departments/budget/Business Cases/Generation/Cabinet Gorge Automation.xlsm

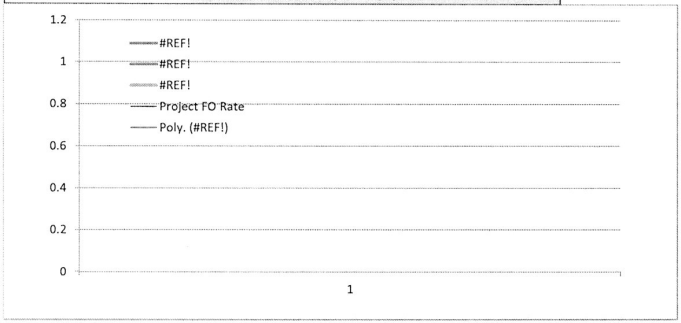
AVISTA

Capital Program Business Case

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Unit Availability
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Six Year Project Cash Flow

	Base	Alternative
2014	$99,000	$99,000
2015	$500,000	$500,000
2016	$616,000	$966,000
2017	$616,000	$966,000
2018	$570,000	$920,000
2019	$540,000	$890,000
	$2,941,000	$4,341,000

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 5/15/2015
http://sharepoint/departments/budget/Business Cases/Generation/Cabinet Gorge Automation.xlsm

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Kettle Falls Stator Rewind

ER No: **ER Name:**
4172 Kettle Falls Stator Rewind

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 7,930 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	7,930	-	-	-	-	-	-	-	-	7,930	-	-	-

Business Case Description:
The Kettle Falls generator is over 32 years old and is at the end of its expected life. This project consists of monitoring the existing machine, developing rewind contract, manufacturing replacement coils, disassembly, coil removal, new coil installation, reassembly, startup, testing and commissioning. Consequences of failure include an unscheduled outage with lost generation, loss of renewable energy credits, long term interruption of fuel supply, collateral damage to core and hydrogen cooling with resulting safety hazards.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

AVISTA

Investment Name:	Kettle Falls Stator Rewind
Requested Amount	$7,930,000
Duration/Timeframe	30 Year Project
Dept.., Area:	Generation & Production
Owner:	Andy Vickers
Sponsor:	Jason Thackston
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:

Financial:	15.04%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >0 and <= 5
Project Risk:	High certainty around cost, schedule and resources
Assessment Score:	106

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Kettle Falls Stator Rewind - The KF generator is 32 yrs old and is at the end of it's expected life. The stator can be rewound on scheduled basis during the spring outage of 2016. Project consists of monitoring the exg. machine, developing rewind contract, manufacturing replacement coils, disassembly, coil removal, new coil installation, reassembly, startup, testing & commissioning. Consequences of failure include an unscheduled outage with lost generation, loss of renewable energy credits, long term interruption of fuel supply, colateral damage to core and hydrogen cooling with resulting safety hazards. The estimated CIRR is 15.04%.	Scheduled work during spring outage, rather than an unscheduled response to an serious outage	$ 7,930,000	$ -	$ 200	3

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Run-to-Fail - Continue operation with the existing stator on a run-to-fail basis. A CIRR of 3.12% has been estimated for the capital expenditures, when the stator fails and is replaced as a corrective measure.	n/a	$ 376,000	$ -	$ 1,945,000	9
Stator rewind	The KF stator is at the end of it's expected life. The actual rewind would be planned and scheduled to occur during the spring outage of 2016. The estimated CIRR is 15.04%.	Scheduled outage, rather than an extensive,	$ 7,930,000	$ -	$ 200	3
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous		$ -	$ -	$ -
2015	$ 2,000,000	$ 20,000	$ -	$ -
2016	$ 5,930,000		$ -	$ 2,000,000
2017	$ -	$ -	$ -	$ 5,930,000
2018		$ -	$ -	$ -
2019		$ -	$ -	$ -
2020+		$ -	$ -	$ -
Total	$ 7,930,000	$ 20,000	$ -	$ 7,930,000

Associated Ers (list all applicable):

ER	2015	2016	2017	2018	2019	Total
0	$ 2,000,000	$ 5,930,000	$ -	$ -	$ -	$ 7,930,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 2,000,000	$ 5,930,000	$ -	$ -	$ -	$ 7,930,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

The resent incident at Colstrip demonstrated the extensive consequences of a stator failure. Colateral damage was extensive, requiring replacement of the core and hydrogen cooling system, and resurfacing of the rotor. The outage was 8 months, even with a rewind kit on site. Damage to the hydrogen cooling system presents an elevated safety risk.

Milestones (high level targets)

April-15	Machine monitoring	June-16	Re-assemble - install rotor, misc. ele	January-00	open
July-14	Rewind contract - Prep rewinds spe	June-16	Startup testing & commissioning	January-00	open
January-16	Manufacturing - coils, coil delivery	June-16	Return to service	January-00	open
May-16	Disassembly - Mark unit alignment,	October-16	Project Close Out	January-00	open
June-16	Coil removal - visual inspection, El	January-00	open	January-00	open
June-16	Install coils & ckt ring, monitoring se	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

☑ YES ☐ YES - attach form ☑ NO or Not Required ☐ YES - attach form ☑ NO or Not Required

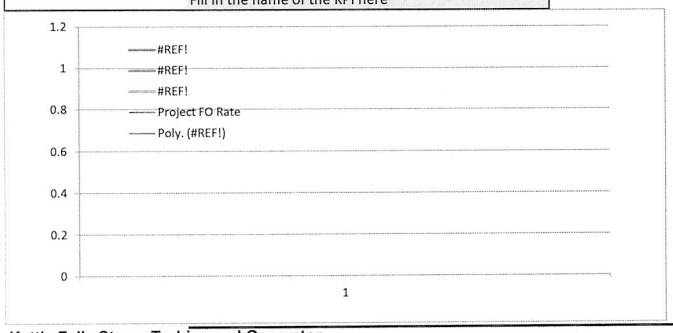
Capital Project Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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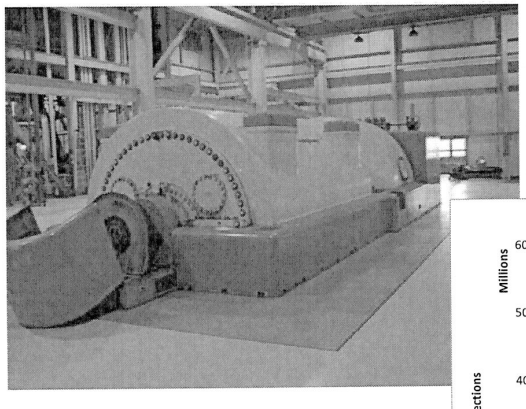
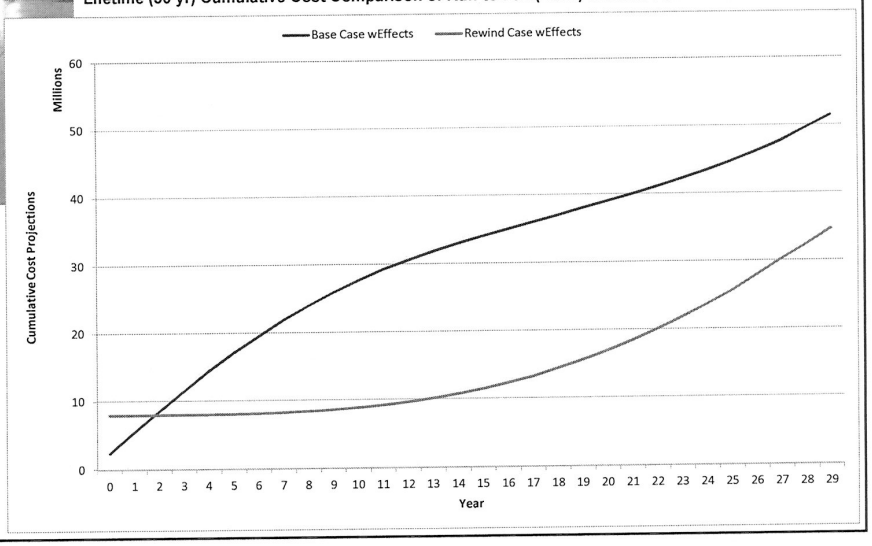
Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Kettle Falls Steam Turbine and Generator



Lifetime (30 yr) Cumulative Cost Comparison of Run-to-Fail (Base) & Stator Rewind Cases



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 5/18/2015
http://sharepoint/departments/budget/Business Cases/Generation/Kettle Falls Stator Rew

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Generation / Production

Business Case Name: Long Lake Replace Field Windings

ER No: **ER Name:**
4169 Long Lake HED Replace Field Windings

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 3,400 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	4,172	-	4,172	-	-	-	-	-	-	-	-	-	-

Business Case Description:
Over the past 10 years, the Company has observed a continuing decline in the insulation level on the generators at Long Lake as measured using Megger test instruments. Long Lake has experienced an increasing amount of forced outages and down time due to the deteriorating condition of these units.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	**LLRepl Field Wndgs**		
Requested Amount	**$3,400,000**	**Assessments:**	
Duration/Timeframe	no. years 3	Financial:	9.62%
Dept.., Area:	GPSS	Strategic:	Reliability & Capacity
Owner:	Andy Vickers	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Jason Thackston	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	99

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Long Lake Replace Generator Field Windings - over the past 10 years, we have observed a continuing decline in the insulation level on the generators at Long Lake. This decline is measured using Megger test instruments. We have experienced an increasing amount of forced outages and down time due to the poor condition of these units. We had planned to address this as part of the Long Lake redevelopment project however that was delayed due to problems at Little Falls. It is the opinion of engineering that the generators at Long Lake will not run reliably for the six years or more to when this would be address as part of that project.	This would reduced plant forced outages	$ 3,400,000	$ 100,000	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Our forced outage events and durations continue to generally increase as our crews find ways to try to keep the units on line. Megger readings indicate that we continuing to degrade in insulation levels. The costs represent estiamted repairs and loss of revenues from forced outages.	n/a	$ -	$ 265,000	$ 1,152,000	12
Alternative 1: Brief name of alternative (if applicable)	Replace one or two sets of field poles rather than rewind them. This would allow the work to get done more quickly and reduce second and third year budget impacts. The incremental cost is reflective of one set of poles.	describe any incremental changes in operations	$ 3,700,000	$ -	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 1,572,000	$ 50,000	$ -	$ -
2015	$ 1,658,000	$ 50,000	$ -	$ 1,572,000
2016	$ 170,000	$ -	$ -	$ 1,658,000
2017+	$ -	$ -	$ -	$ 170,000
Total	$ 3,400,000	$ 100,000	$ -	$ 3,400,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2017+	Total
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

April-14	Contracts in Place	October-15	3rd Unit Completed	January-00	open
July-14	1st Unit Started	October-15	4th Unit Started	January-00	open
October-14	1st Unit Completed	December-15	4th Unit Completed	January-00	open
October-14	2nd Unit Started	March-16	Project Complete	January-00	open
December-14	2nd Unit Completed	January-00	open	January-00	open
July-15	3rd Unit Started	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probablity
Contract Labor: ☑ YES ☐ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

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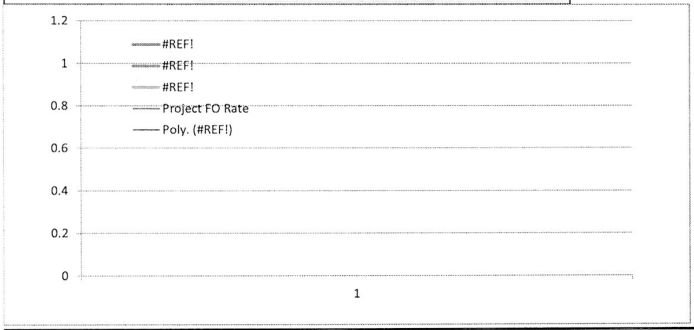
AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Capital Tools & Stores Equipment

ER No:	**ER Name:**
7005	Stores Equip
7006	Tools Lab & Shop Equipment

Approved Business Case Spend Amount 2015-2017 ($000s - System): $7,148[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,348	337	337	337	54	54	54	54	54	54	337	337	337
2016	2,400	344	344	344	56	56	56	56	56	56	344	344	344
2017	2,400	344	344	344	56	56	56	56	56	56	344	344	344

Business Case Description:
This business case is for the purchase and repair of tool and facility material handling equipment. This includes equipment such as forklifts, manlifts, shelving, cutting/binding machines, etc. These funds are used for capital Stores equipment company-wide. The ER's included in this business case are blanket projects that occur year over year.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Capital Tools and Stores		
Requested Amount	$ 1,821,500	Assessments:	
Duration/Timeframe	Ongoing Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Supply Chain	Strategic:	Life Cycle Programs
Owner:	Cody Krogh	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopcynski	Business Risk:	ERM Reduction >0 and <= 5
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Purchase and repair of tool and facility material handling equipment	Enhances crew efficiency	$ 1,500,000	$ -	$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Describe the current condition of the asset(s) and problems that need to be corrected	n/a	$ -	$ -	$ -	0
Alternative 1: Repair all tools	Increased labor to repair failed tools, increased cost to have outside repairs performed (not all tools can be repaired), delayed response by crews, reduced crew efficiency, increased labor to find/rent tools and equipment, safety concerns for not having appropriate equipment to perform craft work (meter	n/a	$ -	$ 1,141,606	$ -	0
	(meter testing, metering equipment, specialized cable splicing, leak detection, utility locating equipment, reduction of safety related equipment, etc.)					
Alternative 1: Rent Forklifts	Increased rental expense & labor to "Other" budget shifting 95% of costs to CAP loading, 5% to O&M		$ 665,000	$ 35,000	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2013	$ 1,500,000	$ -	$ -	$ 775,000
2014	$ 1,575,000	$ -	$ -	$ 1,821,500
2015	$ 1,653,750	$ -	$ -	$ 2,348,325
2016	$ 1,736,438	$ -	$ -	$ 2,400,000
2017	$ 1,823,259	$ -	$ -	$ 2,400,000
2018	$ -	$ -	$ -	$ 2,400,000
2019	$ -	$ -	$ -	$ 2,400,000
Total	$ 8,288,447	$ -	$ -	$ 14,544,825

Associated Ers (list all applicable):

2013		2014	
7006	1500000	7006	$ 1,307,007
		7005	514493

Mandate Excerpt (if applicable):

N/A

Additional Justifications:

Increased budget 2014-2017 amount by 5% to account for inflation

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

AVISTA

Capital Program Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Tool Repair as a percentage of tool purchases
	Fill in the name of the KPI here

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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Central Operating Facility (Mission Campus) Long-Term Restructuring Plan

ER No: **ER Name:**
7126 Long term Campus Re-Structuring Plan

Approved Business Case Spend Amount 2015-2017 ($000s - System): $11,500[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	7,500	-	-	-	-	-	-	-	-	-	-	-	8,500	(1,000)
2016	4,000	-	-	-	-	-	-	-	-	-	-	-	4,000	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
Construct a new warehouse in 2012 and remodel the old warehouse in the Service Bldg to accommodate 110 work stations in 2013. The project also adds 125 employee parking spaces. The new warehouse shall utilize current material handling technologies to increase employee efficiencies, and its height will allow more material to be stored per square foot, thus allowing the Company to use limited square space more efficiently. The facility will provide IS/IT infrastructure and networking in north half of the Mission campus where it is currently non-existent, in anticipation of future projects. This project will also allow the HVAC renovation of the north-building wing to be accomplished in one year rather than a staged process, which results in a one-time $1.2M reduction in capital costs for that project.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

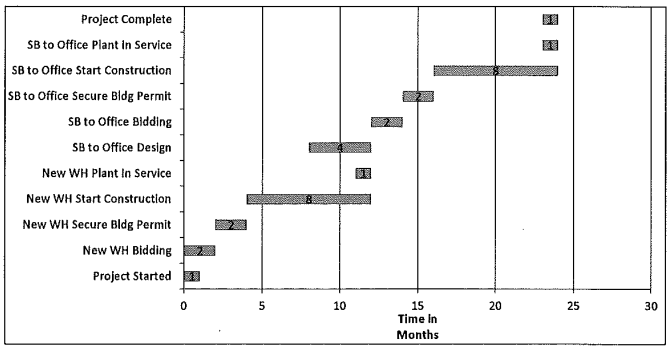
Investment Name:	COF Long-Term Restructuring Plan
Requested Amount	$23,450,000
Duration/Timeframe	5 Year Project
Dept.., Area:	Facilities
Owner:	Mike Broemling & Eric Bowles
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	High - Exceeds 12% CIRR
Strategic:	Other
Operational:	Operations improved beyond current levels
Business Risk:	ERM Reduction >0 and <= 5
Project/Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	100.5

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Construct a new warehouse in 2012 and remodel the old warehouse in the Service Bldg to accommodate 110 work stations in 2013. Also add 125 parking spaces. New warehouse shall utilize current material handling technologies to increase employee efficiencies, and its height will allow for more material to be stored per SF, thus using our limited SF here at the COF more efficiently. Provide IS/IT infrastructure and networking in north half of the COF where it is currently non-existent, in anticipation of future projects. This project will also allow the HVAC rennovation of the north building wing to be accomplished in one year rather than a staged process, which results in a one-time $1.2M reduction in capital costs for that project. PLEASE SEE ADDITIONAL EFFICIENCIES UNDER "ADDITIONAL JUSTIFICATIONS" BELOW. The CIRR is 12.5%-16.0% excluding the HVAC savings and any other facility sales or cessation of rentals.	Alleviates current space issues by creating on-site office space and parking to house employees and contractors	$ 23,450,000	$ -	$ (1,200,000)	3

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Status Quo :	COF will continue to not have enough office space and parking to accommodate demand. Continue to obtain more leases, buy buildings, or buy land and construct buildings to house our employees.	n/a	$ -	$ -	$ -	6
Alternative 1: Construct a new warehouse (recommended option)	See Project Description above.	Alleviates current space issues & new warehouse	$ 9,500,000	$ -	$ (1,200,000)	3
Alternative 2: General Office Building 'wing' addition and parking garage	Construct a parking garage and an addition to the existing building on the west end (156 workstations and 120 parking spaces). No new warehouse bldg or warehouse efficiency gains.	Alleviates current space issues	$ 30,000,000	$ -	$ -	3
Alternative 3 Name : Ross Court Office Building and Parking Lot	Construct a new office building at the Ross Court location in addition to parking spaces (240 workstations and 151 parking spaces). No new warehouse bldg or warehouse efficiency gains.	Alleviates current space issues	$ 15,000,000	$ -	$ -	3

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012	$ 3,050,000	$ -	$ -	$ 3,050,000
2013	$ 7,900,000	$ -	$ -	$ 7,900,000
2014	$ 1,000,000	$ -	$ -	$ 1,000,000
2015	$ 7,500,000	$ -	$ -	$ 7,500,000
2016	$ 4,000,000	$ -	$ -	$ 4,000,000
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 23,450,000	$ -	$ -	$ 23,450,000

Milestones (high level targets)

August-12	New WH Start Construction	February-15	Rotor Bldg and Inv Rec Start	February-16	WH Yard #2 & Wash Bay Start Const
April-13	New WH Plant In Service	June-15	Rotor Bldg In Service	October-16	WH Yard #2 & Wash Bay In Service
May-13	SB to Office Start Construction	June-15	WH Yard #1 Start Const		
October-13	SB to Office Plant in Service	August-15	WH Yard #1 and Inv Rec in service		
October-14	Waste & Asset Rec Bldg Start Con	July-15	GPSS & Spo Const. Remodel: Start Const		
May-15	Waste & Asset Rec Bldg In Service	March-16	GPSS & Spo Const. Remodel: In Service		

Associated Ers (list all applicable):	7126
Mandate Excerpt (if applicable):	n/a

Additional Justifications:

Sept 2013 changes: $2.4 M for new IR / Haz Mat area in 2014, $1.5M for WH Yard and Wash Bay in 2015, $1.5M in 2015 and $2M in 2016 for G&P/Spo Construct Remodel. New IR and Hazmat Bldgs will result in time efficiencies for linemen trucks and drop off processes. Increasing the WH storage yard will also result in time efficiencies for WH personnel due to closer material, more level asphalted area (rather than gravel), and controlled (fenced) inventory and stocking. Wash bay will will save time from washing vehicles off site and will prevent frequent freezing/breakdown of current wash bay. Office renovations of Spokane Construction and GPSS will replace a 30 year old HVAC system and increase number of cubicles on campus to accomodate for growth. JULY 2014 CHANGES: (2014 - $1M) (2015 - $7.5M) (2016 - $4M). Hazmat Bldg cost more than expected, and a GPSS storage bldg must be replaced to do the WH storage yard increase.

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AVISTA

Capital Investment Business Case

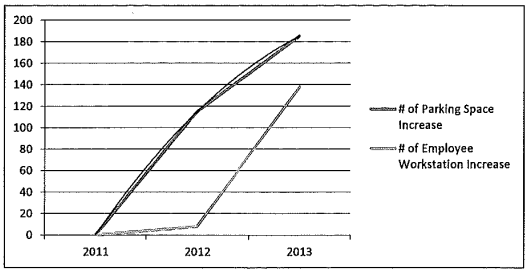
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Total Net Increase of Parking Spaces and Employee Workstations vs. 2011 total



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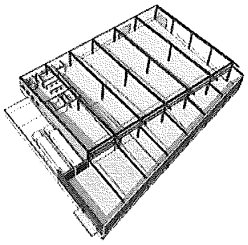
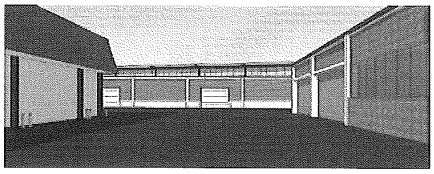
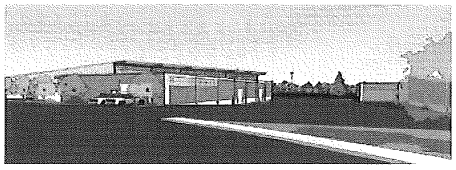
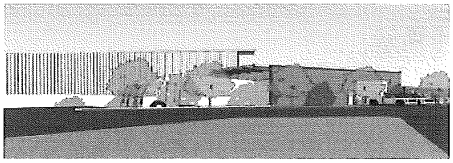
Director/Manager

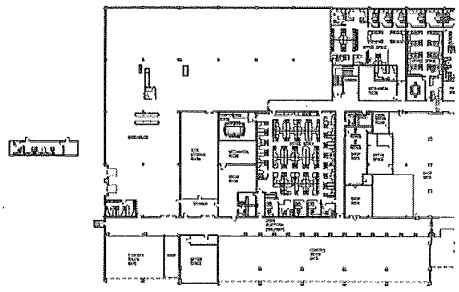
Other Party Review (if necessary) signature Margie Stevens
Director/Manager



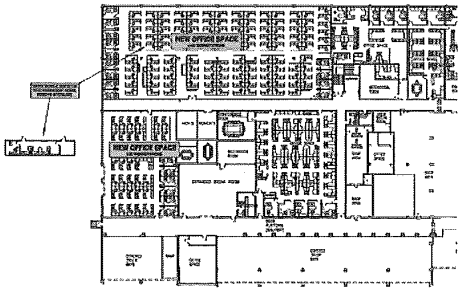








SERVICE BUILDING
EXISTING LAYOUT



SERVICE BUILDING
NEW LAYOUT

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Structures and Improvements/Furniture

ER No:	**ER Name:**
7001	Structures & Improvements
7003	Office Furniture

Approved Business Case Spend Amount 2015-2017 ($000s - System): $11,800[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	6,030	390	383	381	382	383	381	391	381	381	383	383	381	1,430
2016	3,600	307	299	298	299	300	298	307	297	298	299	300	297	
2017	3,600	307	299	298	299	300	298	307	297	298	299	300	297	

Business Case Description:

This program is for the Capital Maintenance, Improvements, and Furniture budgets at 50 plus Avista offices and service centers (over 700,000 square feet in total). Many of the included service centers were built in the 1950's and 1960's and are starting to show signs of severe aging. The program includes capital projects in all construction disciplines (Roofing, Asphalt, Electrical, Plumbing, HVAC, Energy efficiency projects etc.). This program is driven mainly from the results of an objective building survey completed at each service center. The survey assigns a rating to each building category based on condition. This will help us create capital project lists for each service center and make decisions on continued maintenance vs. future replacement.

Offsets:

There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Structures and Improvements and Furniture		
Requested Amount	$25,773,300	Assessments:	
Duration/Timeframe	7 Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Facilities	Strategic:	Life Cycle Programs
Owner:	Mike Broemling & Eric Bowles	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >0 and <= 5
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program would be responsible for the Capital Maintenance, Improvements, and Furniture budgets at 50 plus Avista Offices and Service Centers (over 700,000 sf total). Many of the included Service Centers were built in the 50's and 60's and are starting to show signs of severe aging. The program would include Capital projects in all construction disciplines (Roofing, Asphalt, Electrical, Plumbing, HVAC, Energy efficiency projects etc..). This program would be driven mainly from the results of an objective building survey completed at each Service Center. The survey assigns a rating to each building category based on condition. This will help us create capital project lists for each Service Center and make decisions on continued maintenance vs future replacement.	Improve operating functionality, increased safety, increased energy efficiency.	$ 25,773,300		$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	We are experiencing severe issues with Asphalt Parking, Roof leaking, Energy loss due to inefficient HVAC systems, Low E glass, lack of building insulation, etc... Failure to maintain or replace these system can result in excessive Utility bills, increased damage to other adjacent systems, (example roof leak), as well as increased safety liability (sidewalk heaving and potholes) etc...	n/a	$ -	$ -	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Reducing Capital repair and replacements would drive up O & M costs respectively. This would also increase the risk for unplanned major failures which could also incur additional productivity costs for other departments affected (example major HVAC shutdown).	lower capital would drive up O&M and risk major failure	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 4,820,000	$ -	$ -	$ 4,420,000
2013	$ 4,000,000	$ -	$ -	$ 3,600,000
2014	$ 4,000,000	$ -	$ -	$ 3,433,300
2015	$ 4,000,000	$ -	$ -	$ 4,600,000
2016	$ 4,000,000	$ -	$ -	$ 3,600,000
2017	$ -	$ -	$ -	$ 3,600,000
2018	$ -	$ -	$ -	$ 3,600,000
2019	$ -	$ -	$ -	$ 3,600,000
Total	$ 20,820,000	$ -	$ -	$ 30,453,300

Associated Ers (list all applicable):

Current ER	7001	7003		

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

With the completion of the Facilities Survey in May 2011, we now have the ability to rate the condition of each of our service centers which in turn helps us allocate money to where it is needed most. We are also working on creating a long range lifecycle plan to identify when continued maintenance is no longer prudent and replacement is a more cost effective solution. In addition, the office furniture budget is included in this program and can support various office remodels, chair and furniture replacements, furniture layout remodels, modular wall systems, and new furniture for misc. projects.

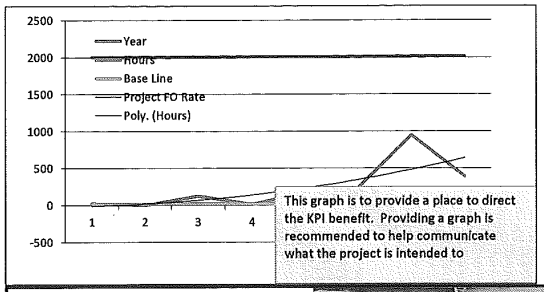
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☑ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☑ YES - attach form	☐ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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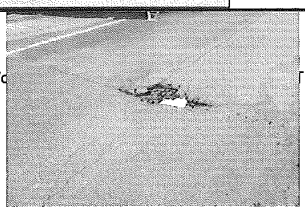
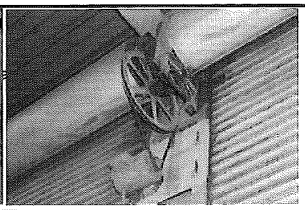
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager





To be completed by Capital Planning Group		
Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Apprentice & Craft Training

ER No: **ER Name:**
7200 Apprentice Craft Train

Approved Business Case Spend Amount 2015-2017 ($000s - System): $180[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	121	5	5	5	5	5	5	5	5	5	5	5	5	61
2016	60	5	5	5	5	5	5	5	5	5	5	5	5	
2017	60	5	5	5	5	5	5	5	5	5	5	5	5	

Business Case Description:
This program is for on-going capital improvements to support the essential skills needed for journeyman workers, apprentices and pre-apprentices now and for the future. It is important to provide the types of training scenarios that employees face in the field. Capital expenditures under this program include items such as building new facilities or expanding existing facilities, purchase of equipment needed, or build out of realistic utility field infrastructure used to train employees. Examples include: new or expanded shops, truck canopies, classrooms, backhoes and other equipment, build out of "Safe City" located at the Company's Jack Stewart training facility in Spokane, which could include commercial and residential building replicas, and distribution, transmission, smart grid, metering, gas and substation infrastructure.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Apprentice/Craft Trng
Requested Amount	$60,000
Duration/Timeframe	10 Year Program
Dept.., Area:	Apprentice/Craft Training
Owner:	Linda Jones
Sponsor:	Karen Feltes
Category:	Mandatory
Mandate/Reg. Reference:	296-05 WAC & Chpt 49 04 RCW

Assessments:

Financial:	7.00%
Strategic:	Performance Excellence
Business Risk:	Business Risk Reduction >0 and <= 5
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	102

Recommend Program Description:

"This program is for on-going capital improvements to support the essential skills needed for journey workers, apprentices and pre-apprentices now and for the future. It is important to provide the types of training scenarios that employees face in the field. The program is for capital infrastructure needed to create an effective set-up for training craft employees. Capital expenditures under this program could include items such as building new facilities or expanding existing facilities, purchase of equipment needed, or build out of realistic utility field infrastructure used to train employees. Examples include: new or expanded shops, truck canopy, classrooms, backhoes and other equipment, build out of "Safe City"- commercial and residential building replicas, and distribution, transmission, smart grid, metering, gas and substation infrastructure. "

Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
describe any incremental changes that this Program would benefit present operations	$ 60,000	$ -	$ -	2

Alternatives:		Performance	Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Without ability to train in-house, critical craft positions would be difficult to fill. Also, regulating bodies may de-certify our Apprentice program. Inability to train in-house may require extensive travel to fulfill our training obligations to maintain required skillsets.	n/a	$ -	$ 20,000	$ -	6
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ 60,000	$ -	$ -	$ 60,000
2014	$ 60,000	$ -	$ -	$ 60,000
2015	$ 60,000	$ -	$ -	$ 60,000
2016	$ 60,000	$ -	$ -	$ 60,000
2017	$ 60,000	$ -	$ -	$ 60,000
2018				$ 60,000
2019	$ -	$ -	$ -	$ 60,000
Total	$ 300,000	$ -	$ -	$ 420,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2017	Total
7200	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 300,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 300,000

Mandate Excerpt (if applicable):

See Below

Additional Justifications:

The proper training of apprentices is governed by the Washington State Apprenticeship Rules and Act (Chpt 296-05 WAC & Chpt 49 04 RCW) as well as numerous other Washington State Labor and Industries WAC/RCW regulations. And by the Federal Department of Labor under Apprentice Labor Standards 29 CFR Part 29 and the Fitzgerald Act-National Apprenticeship Act and other DOL regulations and rules. Compliance/safety training for journey workers is mandated by multiple rules/regulations at the federal level via OSHA and at the state level by WISHA.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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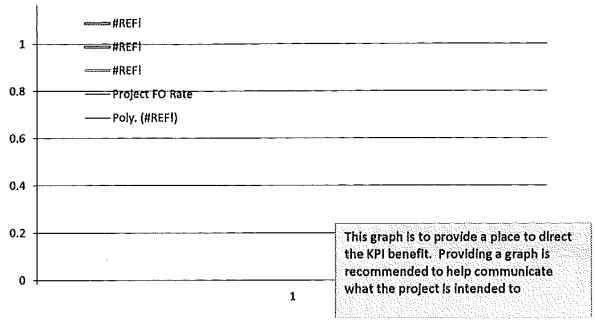
Capital Program Business Case

AVISTA



Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Maggie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: HVAC Renovation Project at Mission Campus Headquarters

ER No: **ER Name:**
7101 COF HVAC Improvement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $5,750[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	9,520	-	-	-	-	-	-	-	-	-	-	-	9,250	270
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
The HVAC Renovation Project began in 2007 and 2008. The HVAC Project is a systematic replacement of the original 1956 Heating, Ventilation and Air Conditioning System for the Service Building, Cafeteria/ Auditorium and General Office Building. The original HVAC equipment has been operating 24/7 since original construction in 1956. The Project entails a floor by floor evacuation and relocation of employees and a complete demolition of each floor; including a massive Asbestos Abatement component, and removing the original fire proofing on the basic steel structure. The Project requires exhaustive demolition and reconstruction of each floor. Sustainable energy savings and conservation are built into the Project as we apply for LEED certification for each floor. The 5th, 4th, and 3rd floor has obtained LEED-CI Gold status recognizing all of the renewable strategies we employed during the design and construction phases. The goal of this project is to re-purpose and recycle the entire Facility for the next generation of Avista employees to use for 50 more years. Life cycle costs weighed heavily on our Construction Specifications and equipment choices during the design phase. The design team chose energy efficient equipment that was designed for 30 to 50 year life cycles.

Offsets:
The attached business case does not show reductions in O&M costs. However, after further discussion it was determined that offsets do exist for the HVAC Renovation Project. This project will result in a reduction to energy costs of $66,000 in 2015 and an incremental reduction to energy costs of $10,000 in 2016. The allocations to Idaho are $21,190 Electric / $3,830 Gas in 2015 and additional reduced energy costs of $3,210 ID Electric / $580 Gas in 2016.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

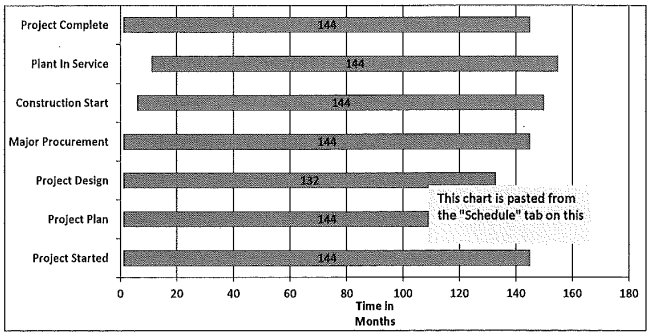
Investment Name:	HVAC Renovation Project
Requested Amount	$39,804,485
Duration/Timeframe	8 Year Project
Dept.., Area:	Facilities Mangement
Owner:	Mike Broemling & Eric Bowles
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	MH - >= 9% & <12% CIRR
Strategic:	Life Cycle Programs
Operational:	Operations improved beyond current levels
Business Risk:	ERM Reduction >0 and <= 5
Project/Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	105

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The HVAC Renovation Project began in 2007 and 2008. The HVAC Project is a systematic replacement of the original 1956 Heating, Ventilation and Air Conditioning System for the Service Building, Cafeteria/ Auditorium and General Office Building. The original HVAC equipment has been operating 24/7 since original construction in 1956. The Project entails a floor by floor evacuation and relocation of employees and a complete demolition of each floor; including a massive Asbestos Abatement component, and removing the original fire proofing on the basic steel structure. The Project requires exhaustive demolition and reconstruction of each floor. Sustainable energy savings and conservation are built into the Project as we apply for LEED certification for each floor. The 5th, 4th, and 3rd floor has obtained LEED-CI Gold status recognizing all of the renewable strategies we employed during the design and construction phases. The goal of this project is to re-purpose and recycle the entire Facility for the next generation of Avista employees to use for 50 more years. Life cycle costs weighed heavily on our Contruction Specifications and equipment choices during the design phase. The design team chose energy efficient equipment that was designed for 30 to 50 year life cycles.	This Project greatly improves air quality in the Facility and saves tremendous amounts of energy going forward.	$ 39,804,485	$ -	$ -	0

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	The current condition of the HVAC system is very poor. It is 60 years old and our newest equipment was installed in the new addition of the General Office Building in 1978. 75% of our equipment was installed in 1956. Parts are no longer available for our equipment and replacement parts have to be manufactured.	n/a	Varies, but in the hundreds of thousands as equip. breaks down.	$ 25,000	$ -	0
Alternative 1: Brief name of alternative (if applicable)	During the Design Phase which occurred in 2008, several different types of HVAC delivery systems were compared and analyzed for distinct characteristics. Initial cost and life cycle cost were evaluated for the Project. By Value engineering our choices we were able to settle on our current system. Analysis is attached.	Updated municipal codes required us to increase air flow in the	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	The only option that was discussed was to do "nothing", and maintain our 60 year old equipment. This scenario had been in place for the last 20 years, and time finally expired on the equipment. It is simply impractical to try to keep antiqudated equipment up and running 24 hours a day when the replacement parts are no longer available.	describe any incremental changes in operations	Varies, but in the hundreds of thousands as equip. breaks down.	$ 25,000	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 18,121,485	$ -	$ -	$ 18,121,485
2012	$ 4,300,000	$ -	$ -	$ 4,300,000
2013	$ 6,500,000	$ -	$ -	$ 8,053,000
2014	$ 10,000,000	$ -	$ -	$ 6,550,000
2015	$ -	$ -	$ -	$ 5,750,000
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 38,921,485	$ -	$ -	$ 42,774,485

Milestones (high level targets)

October-07	5th Flr Start Const.	Jun-11	2nd Flr Start Const.
December-08	5th Flr In Service	Oct-12	2nd Flr In Service
March-09	4th Flr Start Const.	Jan-13	1st Flr/Bsmt Start Const.
February-10	4th Flr In Service	Mar-14	1st Flr/Bsmt In Service
May-10	3rd Flr Start Const.	Apr-14	70's Addition Start Const.
Mar-11	3rd Flr In Service	Jun-15	70's Addition In Service

Associated Ers (list all applicable):	Current ER	7101	7001	7003	7050			

Mandate Excerpt (if applicable): ASHRAE- When upgrading HVAC Systems, all design has to conform to ASHRAE standards, and air flows are regulated by the Washington Administrative code (WACS).

Additional Justifications:

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AVISTA

Capital Investment Business Case

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability
Contract Labor:	☑ YES	☐ NO	

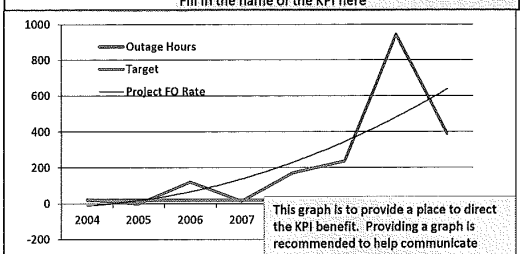
Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Facilities:	☑ YES - attach form	☐ NO or Not Required
Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

Prepared signature

Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

AVISTA Corp.
McKinstry
Avista Corp. Campus – HVAC Renovation
Office Building System Selection – Executive Summary

OVERVIEW

Avista Corp. needs to renovate the HVAC system that serves the five story general office building on their Spokane corporate campus. The need to renovate the system is due to the age of the current mechanical system which is approaching 50 years in the original portion of the office building and in excess of 30 years in the office building addition. While Avista has maintained the system exceptionally over the years, extending the expected life and performance, the current system is prone to failure, does not provide good flexibility, requires more energy that today's more efficient systems, and spare parts are difficult to locate.

As a result, Avista Corp. hired McKinstry to provide a design/build approach to the HVAC renovation. The first step in the process entailed determining the most appropriate HVAC system for the project. This was completed by generating various options for consideration, then developing information for each option that would allow McKinstry to recommend a solution to Avista, with Avista ultimately approving the recommended solution. In order to generate a list of potential HVAC system options, McKinstry completed on-site building reviews, met with facility personnel, and reviewed the building mechanical drawings. Based on these tasks, McKinstry developed the following options for review:

RENOVATION OPTIONS

1. **Existing System:** The existing system utilizes a single multizone air handling unit on each floor that serves a dual duct VAV system for the original office building portion. A multizone air handling unit located in a roof top penthouse serves all five floors of the new addition. The new addition also utilizes dual duct technology. Chilled water and heating water are provided to all air handling units via the central plant located in the Service Building. The duct distribution system throughout the building is a high velocity system, which creates noise issues and requires additional energy to distribute the air.

2. **Renovation Option #1:** This option replaces the existing air handling equipment with similar equipment in both size and function. The replacement of the dual duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

3. **Renovation Option #2:** This option replaces the existing air handling equipment with a new heating ahu and new cooling ahu per floor (original building) and new heating ahu and new cooling ahu to serve the office addition. This option was developed as a way to increase energy performance over option #1. The replacement of the dual duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option

4. **Renovation Option #2a:** This option is the same as Option #2, however, it utilizes a lower discharge air temperature at the air handling units on each floor. By using a lower discharge air temperature, it is possible for the new air handling units on each floor to also serve the respective portion of the office addition for that floor. This eliminates the need for a penthouse mechanical system that serves the office addition. The replacement of the dual duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

5. **Renovation Option #3:** This option provides alternating heating and cooling air handling units per floor in the original office building and new air handling units in the penthouse that serves the office addition. The replacement of the dual duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

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McKinstry

AVISTA Corp.
McKinstry
Avista Corp. Campus – HVAC Renovation
Office Building System Selection – Executive Summary

6. **Renovation Option #4:** This option provides new cooling-only air handling units on each floor of the office building and in the penthouse. Heating is provided through hot water coils located at VAV boxes. The replacement of the duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

7. **Renovation Option #4a:** This option is the same as Option #4, however, it utilizes a lower discharge air temperature at the air handling units on each floor. By using a lower discharge air temperature, it is possible for the new air handling units on each floor to also serve the respective portion of the office addition for that floor. This eliminates the need for a penthouse mechanical system that serves the office addition. Heating is provided through hot water coils located at VAV boxes. The replacement of the duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

8. **Renovation Option #5:** This option provided new roof mounted air handling units to serve all portions of the office space. New shafts provide conditioned air to the office space. The replacement of the dual duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

9. **Renovation Option #6:** This option provided new roof mounted cooling-only air handling units to serve all portions of the office space. New shafts provide conditioned air to the office space. Heating is provided through hot water coils located at VAV boxes. The replacement of the duct distribution system, VAV boxes, controls, and other miscellaneous work are provided under this option.

10. **Renovation Option #7:** This option replaces the existing system with a new underfloor HVAC distribution system. This option includes new air handling units located on the floor, duct distribution, VAV boxes, controls, and the raised floor system itself, along with any of the other building upgrades needed to accommodate the raised floor system.

11. **Renovation Option #8:** This option replaces the existing system with a ground source heat pump system throughout the building.

EVALUATION

In order to evaluate each option, McKinstry created a mechanical system selection matrix that included key information needed to select the proper system. This matrix is included as *Attachment A – Mechanical System Option Evaluation*. The primary factors that were evaluated on a quantitative basis included first costs and operational costs. Additional factors were also reviewed on a qualitative basis.

In order to develop the first cost budget, McKinstry created preliminary mechanical schematics that provided equipment information and layout, as well as duct distribution on floors. McKinstry's estimating group then developed mechanical first costs based on the available information. Mechanical first costs make up the majority of the overall first cost, however, there were other miscellaneous costs to consider for each option including electrical work and other miscellaneous work. For these items, McKinstry relied on consultants and past experience to develop the budgets.

In order to develop operational costs, McKinstry developed an energy model for each system to predict energy use and cost. The energy model simulates the energy use of the HVAC system over the course of an entire year. It is a custom model built around the existing building conditions, the weather data specific to Spokane, and the type of HVAC system modeled. Also, McKinstry's service group evaluated the specifics of each option and provided annual service costs (preventive maintenance). Preventive maintenance costs were based on the preliminary equipment list generated for each option. Together, the energy costs and service costs were combined to reach the overall operational cost for each option.

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McKinstry

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Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Central Office Facility – Mission Campus ("COF") Long-term Restriction Phase 2

ER No: **ER Name:**
7131 COF Long Term Restructuring Plan Phase 2

Approved Business Case Spend Amount 2015-2017 ($000s - System): $14,000[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	2,723	-	-	-	-	-	-	-	-	-	-	-	2,000	723
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	5,000	-	-	-	-	-	-	-	-	-	-	-	5,000	

Business Case Description:
COF Long Term Restructuring Plan, Phase 2. This project involves the construction of a new Fleet Vehicle Garage and 4-story parking structure. By the end of 2015, Facilities projects will add approx. 183 new cubicles. Our parking lots will be beyond max capacity. The Fleet Garage is over 50 yrs old and is constrained. New garage will allow for maintenance of Compressed Natural Gas vehicles as the current bldg does not allow for this. Once Fleet is relocated there will be a distinct separation between operational/service vehicles and employee vehicle. This separation will increase safety by eliminating intermingling of pedestrians in work areas. Office building & parking garage is projected to allow Call Center and any leased facilities to come back to Mission campus. Ross Park conversion to office will secure any future employee expansion that will occur.

Offsets:
There are no offsets presented on the attached Business Case, however we anticipate increases in O&M costs in both 2015 and 2016 related to this project, as a result of the need for additional parking at our Mission Campus. We have included an increase in O&M costs of $11,000 in 2015 and an incremental increase in O&M costs of $11,000 in 2016 (a total of $22,000). The allocation of these costs to Idaho in each year is $3,530 Electric and $640 Gas ($7,060 Electric and $1,280 Gas, total).

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

Investment Name:	**COF LngTrm Restruct Ph2**		
Requested Amount	**$43,500,000**	**Assessments:**	
Duration/Timeframe	5 Year Project	Financial:	7.00%
Dept.., Area:	Facilities	Strategic:	Other
Owner:	Mike Broemling and Eric Bowles	Business Risk:	Business Risk Reduction >10 and <= 15
Sponsor:	Don Kopczynski	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	86

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
COF Long Term Restructuring Plan, Phase 2. Increase Mission campus size by purchasing and developing adjacent lots, reroute Crescent Ave. to make one contiguous lot, construct new Fleet / Service Shops Building, convert all of 1950's Service Bldg to Office Space, and increase parking lot size and build 2-story parking structure. By end of 2015 Facilities projects will add approx. 183 new cubicles. Our parking lots will be beyond max capacity. The Fleet Garage is over 50 yrs old and is constrained by its dims from our ever enlarging vehicles and line trucks. New garage will allow for maintenance of CNG vehicles, current bldg does not allow this. Once Fleet is moved, a distinct separation b/n Operations / Service vehicles and Administrative Employees and vehicles. Separation will increase safety by eliminating intermingling of pedestrians in work areas. Office building & parking garage is projected to allow Call Center and any leased facilities to	State of the art fleet building. Service vehicles contained to north campus. Employee vehicles near main GOB.	$ 47,500,000	$ -	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Employee parking shall overflow into Logan neighborhood. City of Spokane will probably enforce parking regulations if this occurs. Added 5-to-10 minutes walk time from employee cars to desks. All CNG vehicles will have to be maintained at Dollar Road Fleet Bldg, with its extra 15 minute travel time. Continued rental or purchased facilities off site of COF for Avista departments (i.e. call center).	n/a	$ -	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	Build extra parking lot on Ross Court ONLY. Approx. 220 add'l spaces req'd. to offset new employee load. Inconvenient and increased walk times for employees.	describe any incremental changes in operations	$ 2,000,000	$ 20,000	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Build new fleet building off-site. Purchase new lot for construction. Travel times and inefficiencies greatly increased.	describe any incremental changes in operations	$ 7,000,000	$ 20,000	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 500,000	$ -	$ -	$ 590,000
2015	$ 2,000,000	$ -	$ -	$ 1,410,000
2016	$ 3,000,000	$ -	$ -	$ 3,000,000
2017	$ 9,000,000		$ -	$ 9,000,000
2018	$ 14,000,000			$ 14,000,000
2019	$ 15,000,000			$ 15,000,000
Total	$ 43,500,000	$ -	$ -	$ 43,000,000

see note under add'l justification

Associated Ers (list all applicable):			
7126			

ER	2013	2014	2015	2016	2017	Total
7126	$ -	$ 500,000	$ 2,000,000	$ 3,000,000	$ 38,000,000	$ 43,500,000
0	$ -	$ -	$ -	$ -	SEE NOTE	$ -
0	$ -	$ -	$ -	$ -	UNDER ADD'L	$ -
0	$ -	$ -	$ -	$ -	JUSTIFICATIONS	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 500,000	$ 2,000,000	$ 3,000,000	$ 38,000,000	$ 43,500,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

PLEASE NOTE: Request $500K in 2014 (start purchase adjacent lots), $2M in 2015 (finish purchase adjacent lots), $3M in 2016 (start N. Crescent Ave. reroute), $9M in 2017 (finish N. Crescent reroute, start New Service Shops and Fleet Bldg), $14M in 2018 (finish New Service Shops and Fleet Bldg), and $15M in 2019 (Convert Old S. Bldg to Office and new parking garage/lot).

Milestones (high level targets)

April-16	Ross Court parking start constrution	Aug-18	Ross Park convert to office start construction
September-16	Ross Court parking in service	May-19	Ross Park convert to office in service
January-16	Fleet Bldg Start Construction		
December-16	fleet bldg in service		
April-17	Park garage & office start const.		
May-18	Park garage & office in service		

Milestones should be general. Use your judgement on project progress so that progress can be measured.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probablity
Contract Labor: ☑ YES ☐ NO

Enterprise Tech: ☑ YES - attach form ☐ NO or Not Required
Facilities: ☑ YES - attach form ☐ NO or Not Required

Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

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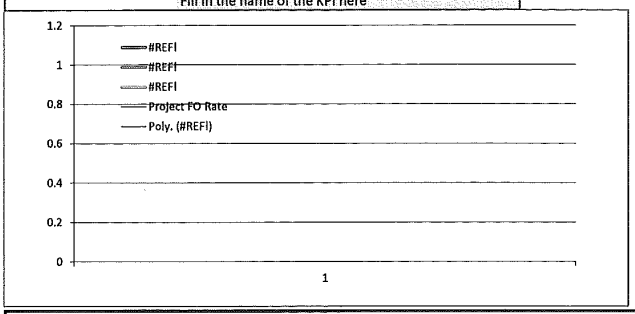
Capital Project Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



Prepared Vance Ruppert

Reviewed Eric Bowles
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

PLEASE SEE DRAWINGS ATTACHED TO SHAREPOINT SITE FOR MORE INFO

COF LngTrm Restruct Ph2 REV JULY-14.pdf

To be completed by Capital Planning Group		
Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-08-2015
C:\Users\vf9457\Desktop\Indexed Business Cases For KKS-5\General\G-13 - COF LngTrm Restruct Ph2

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: Sandpoint Renovation

ER No: **ER Name:**
7137 Sandpoint Service Center

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	500	-	-	-	-	-	-	-	-	-	-	-	500
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
This project will prepare the Sandpoint service center, which was originally built in the mid-1900s, for the next 50 years of service by redesigning and modernizing the building. The renovation will include the construction of a new linedock facility, covered storage buildings to protect equipment, modernization of office spaces and meeting rooms, and the construction of a small warehouse. This project will address current long-standing material and equipment storage issues and will result in increased efficiency of Avista's operations in the service area.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	**Sandpoint Renovation**		
Requested Amount	**$5,500,000**	**Assessments:**	
Duration/Timeframe	2 Year Project	Financial:	7.00%
Dept.., Area:	Facilities Management	Strategic:	Value & Growth
Owner:	Mike Broemling & Eric Bowles	Business Risk:	Business Risk Reduction >0 and <= 5
Sponsor:	Don Kopcznski	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:		Assessment Score:	88

Recommend Project Description: Sandpoint Renovation	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The purpose of this project is to build a new Sandpoint Service Center on a new lot. The Service Center was purchased in 1995 for $181,483. Since that time Avista has invested $514,423 in capital improvements to the Facility. In order to prepare the area for the next 50 years of service, we are asking to invest $5,500,000 for a new lot and building. We propose constructing a new linedock facility, covered storage buildings for expensive equipment. Provide modernized offices, meeting rooms, and mini warehouse. The entire Facility will be fenced and card reader access gates installed. The HVAC systems will be modernized and this should result in significant energy savings. 2015: purchase property and design, 2016: construction.		$ 5,500,000	$ 7,500	$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo	The Facility was constructed in the late 40's or early 50's and is a typical masonry building with several additions through the years. The layout is designed for a 1950's utility. Modernization and redesign will solve many long term material storage problems and equipment storage issues. Resulting in	n/a	Varies as items age. Could be in the tens, or hundreds of thousands.	$ 20,000	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Continue to upgrade the Facility by doing small remodels and re-designs, trying to improve efficiencies.		Varies as items age. Could be in the tens, or hundreds of thousands.	$ 20,000	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered		$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered		$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ -	$ -	$ -	$ -
2015	$ 500,000	$ -	$ -	$ 500,000
2016	$ 5,000,000	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ 3,000,000
2019	$ -	$ -	$ -	$ 2,000,000
Total	$ 5,500,000	$ -	$ -	$ 5,500,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2019	Total
7001	$ -		$ 500,000	$ 5,000,000	$ -	$ 5,500,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 500,000	$ 5,000,000	$ -	$ 5,500,000

Mandate Excerpt (if applicable):

Additional Justifications:

Milestones (high level targets)

March-15	Purchase new lot & start design docs
March-16	Start Construction
November-16	Plant in service

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probablity ☑ YES

Enterprise Tech: ☑ YES - attach form ☐ NO or Not Required

Capital Tools: ☐ YES - attach form ☐ NO or Not Required ☐ YES - attach form ☐ NO or Not Required

Printed: 5/27/2015
http://sharepoint/departments/budget/Business Cases/Facilities/Sandpoint Renovation REV JULY 2014

Capital Project Business Case

	☑ Low Probability	☐ Medium Probability	☐ High Probablity		☑ YES - attach form	☐ NO or Not Required		☐ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☑ YES - attach form	☐ NO or Not Required	Fleet:	☐ YES - attach form	☐ NO or Not Required

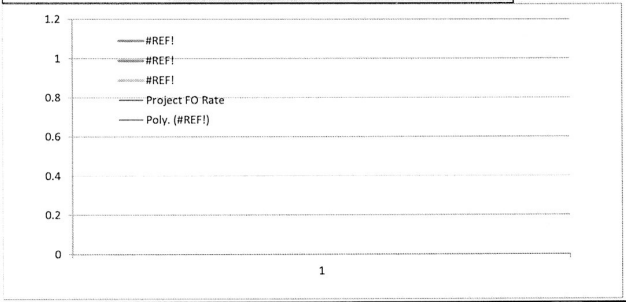
Capital Project Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



Prepared signature Rod Staton

Reviewed signature Eric Bowles
Director/Manager

Other Party Review signature Margi Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 5/18/2015
http://sharepoint/departments/budget/Business Cases/Facilities/Sandpoint Renovation REV JULY 2014

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: General

Business Case Name: New Airport Hangar

ER No: **ER Name:**
7136 New Airport Hangar

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	1,500	-	-	-	-	-	-	-	-	-	-	-	1,500

Business Case Description:
Avista's existing airport hangar will no longer be available to Avista in 2017, as the owner's lease will expire and the hangar will be demolished. This project will address the need for a hangar to secure the corporate airplane.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	**New Airport Hanger**		
Requested Amount	**$1,500,000**	**Assessments:**	
Duration/Timeframe	1 Year Project	Financial:	7.00%
Dept.., Area:	Facilities Management	Strategic:	Customer Cost Management
Owner:	Mike Broemeling	Business Risk:	Business Risk Reduction >0 and <= 5
Sponsor:	Don Kopczynski	Project Risk:	Low certainty around cost, schedule and resources
	Project		
Mandate/Reg. Reference:	Losing existing lease	Assessment Score:	46

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
In 2017 Avista will lose the lease on the existing airport hanger. The owner is losing their lease and the hanger will be demolished. Avista will have to lease a new space or buy land and build a hanger. There is one more option, we could lease the property and build a hanger on the leased property in exchange for a 30 to 50 year lease. We believe that we need a large sum of money as a placeholder to address the need when it arises in 2017. We need to investigate in 2015/16 and plan the project accordingly. In 2017 we would execute the plan.	Retain storage space for company airplane.	$ 1,500,000	$ -	$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	A new hanger must be constructed or leased by 2017. If not, we will no longer have a place to store the company airplane.	n/a	$ -	$ -	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ -	$ -	$ -	$ -
2015	$ -	$ -	$ -	$ -
2016		$ -	$ -	$ -
2017	$ 1,500,000	$ -	$ -	$ 1,500,000
2018				$ -
Total	$ 1,500,000	$ -	$ -	$ 1,500,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2017	Total
H07	$ -	$ -	$ -		$ 1,500,000	$ 1,500,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ 1,500,000	$ 1,500,000

Mandate Excerpt (if applicable):

Additional Justifications:

Milestones (high level targets)

March-17	start construction
August-17	Plant in service

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probablity	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required	Capital Tools:	☐ YES - attach form ☐ NO or Not Required
Contract Labor:	☐ YES	☐ NO		Facilities:	☑ YES - attach form	☐ NO or Not Required	Fleet:	☐ YES - attach form ☐ NO or Not Required

Printed: 11/14/2013
http://sharepoint/departments/budget/Business Cases/Facilities/New Airport Hanger.xlsm

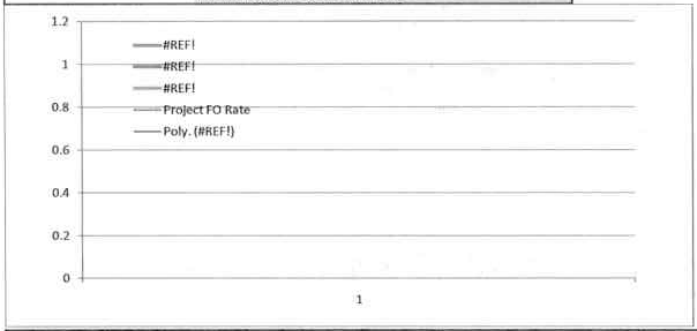
Capital Project Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Reviewed signature

Director/Manager

Other Party Review signature
(if necessary)

Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Aldyl A Replacement

ER No: **ER Name:**
3008 Aldyl -A Pipe Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 52,466 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	16,817	967	906	1,043	1,197	1,497	1,485	1,409	1,625	1,630	1,642	1,203	2,213
2016	17,385	1,000	937	1,078	1,238	1,548	1,535	1,456	1,680	1,685	1,697	1,244	2,288
2017	18,263	1,044	981	1,131	1,299	1,627	1,614	1,527	1,768	1,772	1,785	1,305	2,410

Business Case Description:

This program covers the replacement of 730 miles of pre-1987 Aldyl A mains and the remediation of 16,000 bending stress sites on services tapped from steel main. Due to the tendency for this material to suffer brittle-like cracking leak failures, Aldyl A will eventually reach a level of unreliability that is not acceptable. Please also see Company witness Labolle for further details regarding this program.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Aldyl A Replacement_mains and bending stress
Requested Amount	$16.5MM
Duration/Timeframe	20 Year Program
Dept.., Area:	Gas Delivery
Owner:	Mike Faulkenberry
Sponsor:	Don Kopcyzynski
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	Medium - >= 5% & <9% CIRR
Strategic:	Life Cycle Programs
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program covers the replacement of 730 miles of pre-1987 Aldyl A mains and the remediation of 16,000 bending stress sites on services tapped from steel main. Due to the tendency for this material to suffer brittle-like cracking leak failures, Aldyl A will eventually reach a level of unreliability that is not acceptable. There is a potential harm to the public through damage to life and property and there is a high likelihood of increasing regulatory scrutiny from increasing failures.	As Aldyl A is removed, O&M expense associated with repairing the increasing leaks will be eliminated in proportion	$ 10,250,000	$ -	$ -	5

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	If unfunded, the increasing failures of mains and services is modeled to result in more than 13 catastrophic events in Washington alone. Extended to Idaho and Oregon, the cost of the effects (at a 10% escalation) and increasing expenses for O&M leak repair could total more than $60MM over a 20 year period, an average of $3MM annually.	n/a			$ 3,000,000	15
Alternative 1: Brief name of alternative (if applicable)	20 year replacement program: Replace 37 miles of main and remediate 800 service taps each year, prioritized by DIMP risk modeling. Modeling suggests that if pipe is removed on a first in-first out basis up to 3 catastrophic events could occur over 20 years, however, using a DIMP based approach to remove highest risk facilities first without regard to age only it may be possible to avoid any incidents.	As Aldyl A is removed, O&M expense associated with repairing the increasing leaks will be eliminated in proportion	$ 17,552,196	$ (60,000)	$ -	5
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 5,000,000	$ -	$ -	$ 5,000,000
2013	$ 10,250,000	$ -	$ -	$ 12,710,904
2014	$ 17,552,196	$ -	$ -	$ 16,702,196
2015	$ 17,817,429	$ -	$ -	$ 16,817,429
2016	$ 18,885,272	$ -	$ -	$ 17,385,272
2017	$ -	$ -	$ -	$ 18,262,977
2018	$ -	$ -	$ -	$ 18,648,237
2019	$ -	$ -	$ -	$ 19,062,221
Total	$ 69,504,897	$ -	$ -	$ 124,589,236

2% inflation included in above numbers

Associated Ers (list all applicable):

Current ER

Mandate Excerpt (If applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Avista has experienced 2 injury and property damage events due to failing Aldyl A since 2005 and is currently bound by a settlement agreement with the Washinging Utility and Transportation Commission. Further events of this nature will most likely result in some sort of mandatory pipe replacement program with a timeline we cannot control. Taking a proactive and priority-justified approach is critical at this time to protect life and property for the public as well as reduce Avista's exposure to the risks of liability and regulatory scrutiny.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probability
Contract Labor: ☑ YES ☐ NO

Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required

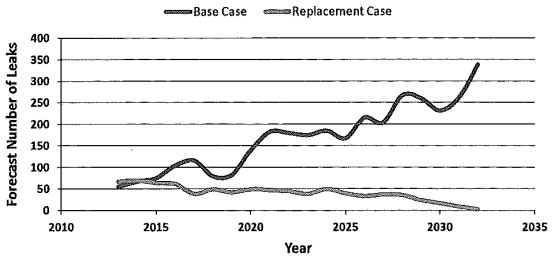
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided

	☐ YES - attach form		
Fleet:	☐ YES - attach form	☑ NO or Not Required	(this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Prevention of leaks and their consequences
	Fill in the name of the KPI here



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Reviewed signature
Director/Manager

r Party Review signature Marcy Stevens
(if necessary) Director/Manager

Business Case	ERM Risk Reduction	Unfunded Raw Score	Revised Risk Raw Score	Unfunded Project/Program Risk (no funding if a project, cease funding if an existing program)					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Aldyl A Replacement (mains & bending stress tees)	15	20	5	3 - $2MM - $4MM	< Once / year	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / year		
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						5 - Potential for multiple loss of lives Wide spread damage on property or business Public health infrastructure impact up to 72 hours	< Once / year	2 - Potential for minimal or minor injury Lost Time Incident and Severity Rate increases year over year	< Once / 5 years
				Revised Risk if funded/completed					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				3 - $2MM - $4MM	< Once / 50 years	3 - Could result in a sustained negative impact to local, online, or industrial relationships and / or national / global media coverage	< Once / 50 years		
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						5 - Potential for multiple loss of lives Wide spread damage on property or business Public health infrastructure impact up to 72 hours	< Once / 50 years	2 - Potential for minimal or minor injury Lost Time Incident and Severity Rate increases year over year	< Once / 50 years

Budget request for 2014, 2015, and 2016 were revised with updated budget projections based on new models and information.

WA UTC Docket UG-120715 Commission Policy on Accelerated Replacement of Pipeline with Elevated Risk was issued on December 31, 2012. The new policy will include a Cost Recovery Mechanism (CRM) based generally on the mechanism used in Oregon with NWNG.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Cathodic Protection

ER No: **ER Name:**
3004 Cathodic Protection-Minor Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 3,200 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	1,292	44	43	58	67	80	102	100	100	100	89	73	97	342
2016	1,000	47	45	61	70	84	106	104	105	105	94	76	104	
2017	1,250	57	56	76	88	105	135	132	132	132	117	96	127	

Business Case Description:
This program will replace existing and install new cathodic protection systems to ensure compliance with 49 CFR 192, Subpart I - "Requirements for Corrosion Control" that requires pipelines be protected against external corrosion by means of a cathodic protection system. This program will ensure appropriate cathodic protection levels are maintained, reduce corrosion related failures, help prevent leaks within steel pipeline systems and enhance public safety.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Cathodic Protection, Natural Gas		
Requested Amount	$950,000	Assessments:	
Duration/Timeframe	on-going Year Program	Financial:	9.00%
Dept.., Area:	Gas Operations	Strategic:	Reliability & capacity
Owner:	Mike Faulkenberry	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	Moderate certainty around cost, schedule and resources
Category:	Mandatory		
Mandate/Reg. Reference:	49 CFR 192, Subpart I - "Requirements for Corrosi	Assessment Score:	138

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace existing and install new cathodic protection systems to ensure compliance with 49 CFR 192, Subpart I - "Requirements for Corrosion Control" that requires pipelines be protected against external corrosion by means of a cathodic protection system. This program will ensure appropriate cathodic protection levels are maintained, reduce corrosion related failures, help prevent leaks within steel pipeline systems and enhance public safety.	describe any incremental changes that this Program would benefit present operations	$ 950,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Avista would be out of compliance in portions of its gas distribution system.	n/a	$ -	$ -	$ -	12
Alternative 1: Project as described above.	Install new and replace existing cathodic protection system.	describe any incremental changes in operations	$ 800,000	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 500,000	$ -	$ -	$ 500,000
2014	$ 800,000	$ -	$ -	$ 700,000
2015	$ 950,000	$ -	$ -	$ 950,000
2016	$ 1,000,000	$ -	$ -	$ 1,000,000
2017	$ 1,250,000	$ -	$ -	$ 1,250,000
2018	$ 1,250,000	$ -	$ -	$ 1,250,000
2019	$ 1,250,000	$ -	$ -	$ 1,250,000
2020+	$ 1,250,000	$ -	$ -	$ -
Total	$ 8,250,000	$ -	$ -	$ 6,900,000

Associated Ers (list all applicable):			
3004			

ER	2014	2015	2016	2017	2019	Total
3004	$ 950,000	$ 1,000,000	$ 1,250,000	$ 1,250,000	$ 1,250,000	$ 5,700,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 950,000	$ 1,000,000	$ 1,250,000	$ 1,250,000	$ 1,250,000	$ 5,700,000

Mandate Excerpt (if applicable):

49 CFR 192.455(a) "Except as provided in paragraphs (b), (c), and (f) of this section, each buried or submerged pipeline installed after July 31, 1971, must be protected against external corrosion, including the following: (2) It must have (cont. below)

Additional Justifications:

a cathodic protection system designed to protect the pipeline in accordance with this subpart, installed and placed in operation within 1 year after completion of construction.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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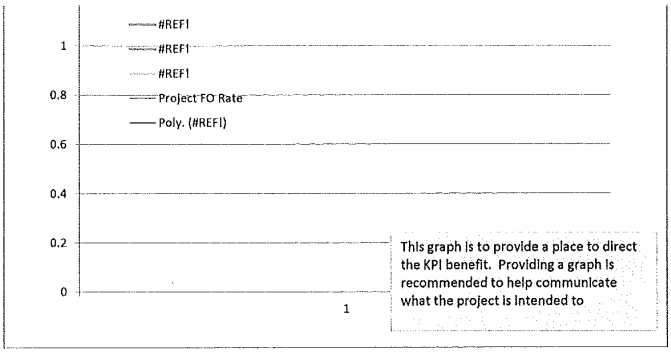
AVISTA



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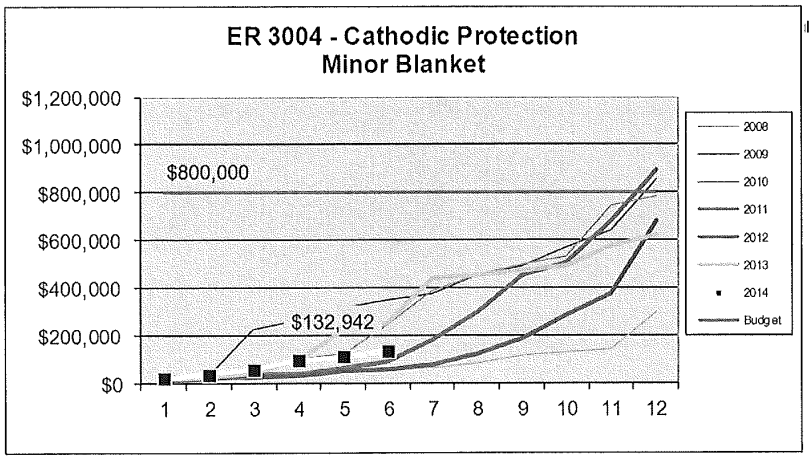
Director/Manager

Other Party Review signature Margi Stevens
(if necessary) Director/Manager



lating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Gas Non-Revenue Program

ER No: **ER Name:**
3005 Gas Distribution Non-Revenue Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 18,000 [1]**

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	5,928	417	369	403	445	517	530	555	550	553	551	456	654	(72)
2016	6,000	424	373	405	446	517	525	553	546	549	551	456	655	
2017	6,000	425	373	405	446	517	525	554	545	549	550	456	654	

Business Case Description:
This annual program will replace sections of existing natural gas piping that require replacement to improve the operation of the gas system but are not directly linked to new revenue. The program includes replacement of pipe and facilities that are at the end of their useful life or have failed. It includes improvements in equipment and/or technology to enhance system operation and/or maintenance, replacement of obsolete facilities, replacement of main to improve cathodic performance, and projects to improve public safety and/or improve system reliability. Starting in 2014, costs associated with the labor and minor materials to complete the Planned Meter Change-out ("PMC") program will no longer be captured in this Business Case, they will be on the "Gas PMC Program".

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Gas Non-Revenue Program		
Requested Amount	$5,600,000	Assessments:	
Duration/Timeframe	On-Going Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	Gas Operations	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >10 and <= 15
Category:	Program	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:		Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace sections of existing gas piping that require replacement to improve the operation of the gas system but are not directly linked to new revenue. The program includes replacement of pipe and facilities that are at the end of their useful life or have failed. It includes improvements in equipment and/or technology to enhance system operation and/or maintenance, replacement of obsolete facilities, replacement of main to improve cathodic performance, and projects to improve public safety and/or improve system reliability. Starting in 2014, costs associated with the labor and minor materials to complete the PMC program will no longer be captured in this Business Case, they will be on the "Gas PMC Program". This results in a $1M reduction in the 2014 budget request; however the historical spend has been high in this category, so the resultant 2014 request is $6,00,000 (total).	describe any incremental changes that this Program would benefit present operations	$ 5,600,000	$ -	$ -	8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Avista will be unable to complete capital non-revenue system enhancements	n/a	$ -	$ -	$ -	8
Alternative 1: Brief name of alternative (if applicable)	Complete installation and/or upgrade of non-revenue assets.	n/a	$ 5,600,000	$ -	$ -	2
Alternative 2: Brief name of alternative (if applicable)		n/a	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012	$ 4,223,000	$ -	$ -	$ 3,823,000
2013	$ 4,349,690	$ -	$ -	$ 7,949,690
2014	$ 5,600,000	$ -	$ -	$ 6,600,000
2015	$ 6,000,000	$ -	$ -	$ 6,000,000
2016	$ 6,000,000	$ -	$ -	$ 6,000,000
2017	$ -	$ -	$ -	$ 6,000,000
2018	$ -	$ -	$ -	$ 6,000,000
2019	$ -	$ -	$ -	$ 6,000,000
Total	$ 26,172,690	$ -	$ -	$ 48,372,690

Associated Ers (list all applicable):

Current ER
3005

Mandate Excerpt (if applicable):

Additional Justifications:

The program addresses a number of mandatory projects, at the direction of the commission and/or projects that enhance public safety and system reliability. (Example: Incremental pipe enhancements, replacement of odorization equipment, installation of steel pipe to enhance system cathodic protection, etc.)

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)
Expected Performance Improvements
KPI Measure:

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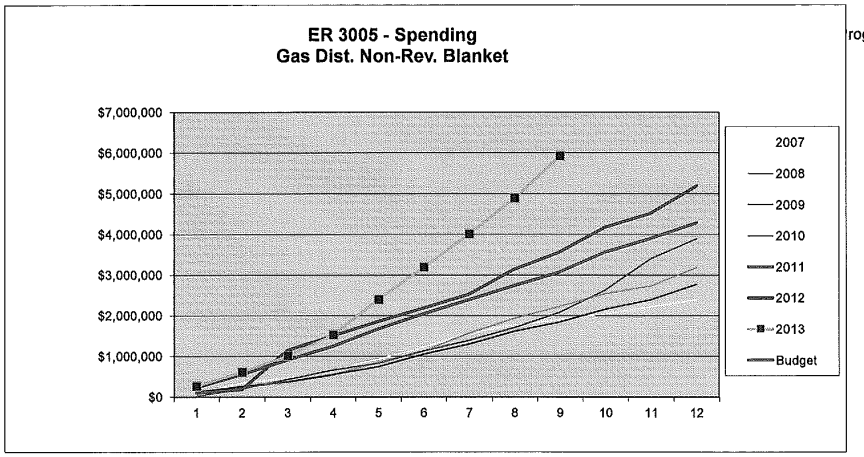
Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

rogram



To be completed by Capital Planning Group		
Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Gas Reinforcement

ER No: **ER Name:**
3000 Gas Reinforce-Minor Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 2,800** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,000	68	56	66	74	81	103	116	95	96	87	81	77
2016	1,000	68	56	66	74	81	103	116	95	96	87	81	77
2017	800	60	48	54	60	65	79	92	73	74	69	65	61

Business Case Description:

This annual program will provide for necessary reinforcements and reliability looping of the existing gas distribution system in WA, ID, and OR. Avista has an obligation to provide reliable service that is of adequate pressure and capacity. Periodic reinforcement of the system is required to reliably serve due to increased demand at existing service locations and new customers. Execution of this program on an annual basis will ensure the continuation of reliable gas service that is of adequate pressure and capacity.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Gas Reinforcement		
Requested Amount	$1,000,000	Assessments:	
Duration/Timeframe	On-Going 2012+	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Gas Operations	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Operational:	Operations not impacted by execution
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >10 and <= 15
Category:	Mandatory	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	WAC 480-90-148(2)(d), IDAPA 31.31.01.151, OR	Assessment Score:	143

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will provide for necessary reinforcements and reliability looping of the existing gas distribution system in WA, ID, and OR. Avista has an obligation to provide reliable service that is of adequate pressure and capacity. Periodic reinforcement of the system is required to reliably serve due to increased demand at existing service locations and new customers. Execution of this program on an annual basis will ensure the continuation of reliable gas service that is of adequate pressure and capacity. The 2013 budget was cut and needs to be increased for 2014+ (to $1,000,000) to ensure adequate capacity that will meet a design day load. Specific ER's may be added to this Business Case as they are defined as Reinforcement Projects.	describe any incremental changes that this Program would benefit present operations	$ 1,050,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Gas distribution reinforcements are identified on an on-going basis and need to be completed when identified to ensure continuation of reliable service.	n/a		$ -	$ -	16
Alternative 1: Pipe Installation	Capital Pipe Installations - Install additional pipe to reinforce and loop existing gas distribution system to increase system reliability.	Reduced system monitoring during cold	$ 1,000,000		$ -	4
Alternative 2: Uprate Alternative	Distribution System Uprates - Increase the operating pressure of existing gas distribution system to a 60 PSIG MAOP. Uprating gas distribution system will increase the delivery capacity in addition to increases operating efficiency by tying existing distribution system together with similar operating pressures.	Reduction in regulator station maintenance.	$ 50,000	$ 100,000	$ -	4
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved Capital
2012	$ 1,050,000	$ -	$ -	$ 800,000
2013	$ 1,050,000	$ -	$ -	$ 1,120,000
2014	$ 1,000,000	$ -	$ -	$ 1,000,000
2015	$ 1,000,000	$ -	$ -	$ 1,000,000
2016	$ 1,000,000	$ -	$ -	$ 1,000,000
2017	$ 800,000	$ -	$ -	$ 800,000
2018	$ 600,000	$ -	$ -	$ 600,000
2019	$ -	$ -	$ -	$ 600,000
Total	$ 6,500,000	$ -	$ -	$ 6,920,000

Associated Ers (list all applicable):

Current ER
3000

Mandate Excerpt (if applicable):

WAC 480-90-148(2)(d), "Each gas utility must maintain its gas system in a condition that enables it to furnish safe, adequate, and efficient service." IDAPA 31.31.01.151, "Service to the customer shall assure the customer of adequate pressure, a definite heat content, and the accurate measurement of gas.", OR Tariff - Rule 14(A)(2), "The Company will exercise reasonable diligence and care to furnish and deliver a continuous and sufficient quantity of gas to its customers but does not guarantee continuity or sufficiency of quantity."

Additional Justifications:

Program required to reliably serve customers

Capital Investment Business Case

AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Cold Weather Related Outages
	Fill in the name of the KPI here

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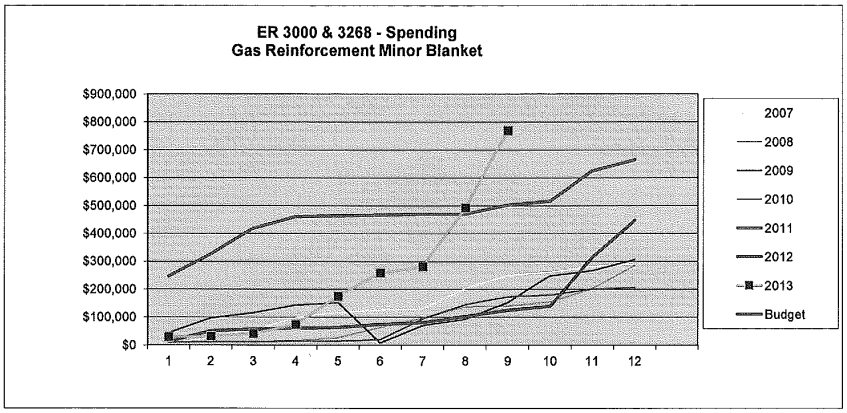
Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Marcie Stevens
Director/Manager



Business Case	ERM Risk Reduction	Status Quo Raw Score	Risk on Completion Raw Score	Status Quo Risk					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Gas Reinforcement	12	16	4	2 - $200k - $2MM	< Once / year	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / year	5 - > 120,000 Customer-hours	< Once / 5 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 10 years	1 - Potential for injury	< Once / 50 years
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				1 - < $200k	< Once / 10 years	2 - Could result in a moderate negative impact to local, online, or industrial relationships and /or regional media coverage	< Once / 10 years	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 50 years	1 - Potential for injury	< Once / 50 years

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-09-2015
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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Gas Replacement Street & Highway

ER No:	**ER Name:**
3003	Gas Replace-St&Hwy
3302	HWY 62 - HP & IP Main Relocation & SSFT #1316

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 13,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	5,035	266	244	283	322	395	408	401	434	436	431	329	552	535
2016	4,500	266	244	283	322	395	408	401	434	436	431	329	552	
2017	4,500	266	244	283	322	395	408	401	434	436	431	329	552	

Business Case Description:
This annual program will replace sections of existing gas piping that require replacement due to relocation or improvement of streets or highways in areas where natural gas piping is installed. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Gas Replacement Street and Highway
Requested Amount	$4,500,000
Duration/Timeframe	On-Going
Dept.., Area:	Gas Operations
Owner:	Mike Faulkenberry
Sponsor:	Don Kopczynski
Category:	Mandatory
Mandate/Reg. Reference:	Franchise Agreements and Permits

Assessments:	
Financial:	Medium - >= 5% & <9% CIRR
Strategic:	Other
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >10 and <= 15
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	140

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace sections of existing gas piping that require replacement due to relocation or improvement of streets or highways in areas where gas piping is installed. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements.	describe any incremental changes that this Program would benefit present operations	$ 4,500,000	$ -	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Avista would be out of compliance with established franchise agreements and/or permits if work is not completed.	n/a	$ -	$ -	$ -	16
Alternative 1:	Relocate facilities in conflict with street and highway projects where established franchise agreements and/or permits exist.	n/a	$ 4,500,000	$ -	$ -	2
Alternative 2:		n/a	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 2,200,000	$ -	$ -	$ 2,200,000
2013	$ 4,500,000	$ -	$ -	$ 4,550,000
2014	$ 4,500,000	$ -	$ -	$ 4,300,000
2015	$ 4,500,000	$ -	$ -	$ 4,500,000
2016	$ 4,500,000	$ -	$ -	$ 4,500,000
2017	$ 4,500,000	$ -	$ -	$ 4,500,000
2018	$ 4,500,000	$ -	$ -	$ 4,500,000
2019	$ -	$ -	$ -	$ 4,500,000
Total	$ 29,200,000	$ -	$ -	$ 33,550,000

Associated Ers (list all applicable):

Current ER
3003
3302
3297

Mandate Excerpt (if applicable):

Franchise agreements and typical state highway and R/R permits prescribe that the utility will relocate at their expense when in conflict with entity activities.

Additional Justifications:

Mandatory work to maintain compliance with existing franchise and operating permits with state highway districts and rail roads.

Capital Investment Business Case

AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure:

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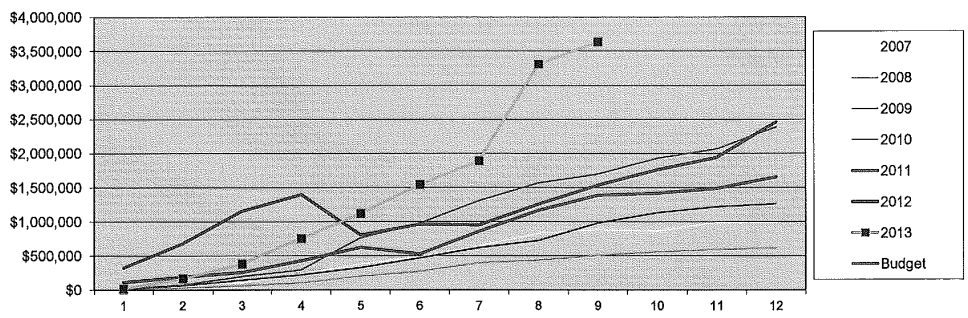
Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Maggie Stevens
Director/Manager



								Reliability (# customers * duration of an outage)	Likelihood
Gas Replacement Street and Highway	14	16	2	2 - $200k - $2MM	< Once / year	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / year	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				1 - < $200k	< Once / 10 years	1 - No likely impact on media or regulatory relationship.	< Once / 10 years	1 - < 1,500 Customer-hours	< Once / 50 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Gas Telemetry Deployment

ER No: **ER Name:**
3117 Gas Telemetry

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 1,200** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	416	32	26	27	30	34	33	38	35	35	36	30	43	16
2016	400	32	26	27	30	34	33	38	35	35	36	30	43	
2017	400	32	26	27	30	34	33	38	35	35	36	30	43	

Business Case Description:
This program will continue the installations of gas telemetry throughout Avista's natural gas service territory. Further enhancing the telemetry sites will increase the visibility of the gas system to help analyze operational concerns and cold weather performance. This program will also replace the current mechanical pressure recording charts with electronic pressure recording devices. These types of projects also enhance our disaster recovery efforts by updating existing telemetry and adding new sites. Gas Scheduling benefits from this data also by having independent measurement points to check the pipelines values and to receive more timely information from the field.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**Gas Telemetry**		
Requested Amount	**$400,000**	**Assessments:**	
Duration/Timeframe	Year Program	Financial:	7.00%
Dept.., Area:	Gas Engineering	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	CFR 192.741 192.631	Assessment Score:	81

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program will continue the installations of gas telemetry throughout Avista's gas service territory. Further enhancing the telemetry sites will increase the visibility of the gas system to help analyze operational concerns and cold weather performance. This progam will also replace the current mechanical pressure recording charts with electronic pressure recording devices. These types of projects also enhance our Disaster Recovery efforts by updating existing telemetry and adding new sites. Gas Scheduling benefits from this data also by having independent measurement points to check the pipelines values and to receive more timely information from the field.	describe any incremental changes that this Program would benefit present operations	$ 400,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	No further enhancements or maintenance of the existing telemetry system. Existing mechanical pressure recorders are expensive to fix and replace.	n/a	$ -	$ 50,000	$ -	8
Alternative 1: Brief name of alternative (if applicable)	Increase the number of gas telemetry sites and maintain or upgrade existing facilities. This funding level was previously approved as part of the Gas PMC Business Case. We are now requesting to separate it out as it does not align well with the PMC program.	describe any incremental changes in operations	$ 400,000	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 370,000	$ -	$ -	$ 315,000
2015	$ 370,000	$ -	$ -	$ 400,000
2016	$ 370,000	$ -	$ -	$ 400,000
2017	$ 370,000	$ -	$ -	$ 400,000
2018	$ 370,000	$ -	$ -	$ 400,000
2019	$ -	$ -	$ -	$ 400,000
Total	$ 1,850,000	$ -	$ -	$ 2,315,000

Associated Ers (list all applicable):			
3117			

ER	2014	2015	2016	2017	2018	Total
3117	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 2,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 2,000,000

Mandate Excerpt (if applicable):

CFR 192.741 - Each distribution system supplied by more than one source must be equipped with telemetering or recording pressure gauges to indicate the gas pressure in the district.
CFR 192.631 - Control Room Mgmt

Additional Justifications:

Increased gas telemetry sites will also aide in the installation and monitoring of Automatic Shut Off or Remote Control Valves (ASO/RCV).
Disaster Recovery - new telemetry sites are IP addressable to help in the event the primary dispatch center (Mission) is not available.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Gas/Gas Telemetry Program

Capital Program Business Case

AVISTA

Key Performance Indicator(s)
Expected Performance Improvements
KPI Measure:

Prepared signature

Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Maurie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Isolated Steel Replacement

ER No: **ER Name:**
3007 Isolated Steel Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 10,320 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	3,458	245	210	227	253	301	294	313	312	315	322	256	401	8
2016	3,550	250	215	233	260	310	303	321	322	325	332	263	415	
2017	3,320	207	187	210	239	293	290	286	314	315	319	241	419	

Business Case Description:
This annual program will replace sections of cathodically isolated steel pipe. Isolated portions of pipe including risers, service pipe and main will be replaced as required to meet the requirements of 49 CFR 192.455 & 157 and in accordance with WUTC Docket PG-100049. This program will be conducted in ID and OR also to assure cathodically isolated steel is identified and replaced as needed.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Isolated Steel Replacement		
Requested Amount	$2,598,333	Assessments:	
Duration/Timeframe	On-Going	Financial:	High - Exceeds 12% CIRR
Dept., Area:	Gas Operations	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Operational:	Operations somewhat impacted by execution
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >0 and <= 5
Category:	Mandatory	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	WAC Docket PG-100049, 49CFR192.455&157	Assessment Score:	117

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace sections of cathodically isolated steel pipe. Isolated portions of pipe including risers, service pipe and main will be replaced as required to meet the requirements of 49 CFR 192.455 & 157 and in accordance with WAC Docket PG-100049. This program will be conducted in ID and OR also to assure cathodically isolated steel is identified and replaced as needed.	describe any incremental changes that this Program would benefit present operations	$ 2,598,333	$ -	$ -	12

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	Avista would be out of compliance with Docket PG-100049 and 49 CFR 192.455 & 457.	n/a	$ -	$ -	$ -	12
Alternative 1:	Complete programmatic replacement of isolated steel pipe	n/a	$ 2,598,333	$ -	$ -	9
Alternative 2:		n/a	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved Capital
2012	$ 2,321,433	$ -	$ -	$ 1,095,000
2013	$ 2,348,337	$ -	$ -	$ 2,248,333
2014	$ 2,598,333	$ -	$ -	$ 1,758,333
2015	$ 3,450,000	$ -	$ -	$ 3,450,000
2016	$ 3,550,000	$ -	$ -	$ 3,550,000
2017	$ 3,320,000	$ -	$ -	$ 3,320,000
2018	$ 2,750,000	$ -	$ -	$ 2,750,000
2019	$ 2,750,000	$ -	$ -	$ 2,750,000
Total	$ 23,088,103	$ -	$ -	$ 20,921,666

Associated Ers (list all applicable):

Current ER	
3007	

Mandate Excerpt (if applicable):

Docket PG-100049 (III) - "Agreement"(2) - Avista agrees to survey its entire Washington State pipeline system to find isolated steel and complete all remedial action set forth in this Agreement within five years of the effective date of this Agreement.

Additional Justifications:

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AVISTA

Capital Investment Business Case

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The Internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:

	B	U	Z	AA
1	*Department*	*YTD October 2013*	*Minimum to Complete 2013*	*Percent Complete*
2	*Spokane Gas Construction*	*586*	*650*	*90%*
3	*Roseburg*	*113*	*107*	*106%*
4	*Medford Construction*	*5*	*222*	*2%*
6	*Clarkston Electric & Gas*	*6*	*34*	*18%*
7	*La Grande*	*25*	*28*	*89%*
8	*Sandpoint / Bonners Ferry*	*4*	*7*	*57%*
9	*CDA Gas*	*38*	*31*	*123%*
10	*Klamath Falls*	*24*	*43*	*56%*
11	*Pullman Electric & Gas*	*14*	*98*	*14%*
12	***Total YTD 2013***	***815***	***1220***	***67%***

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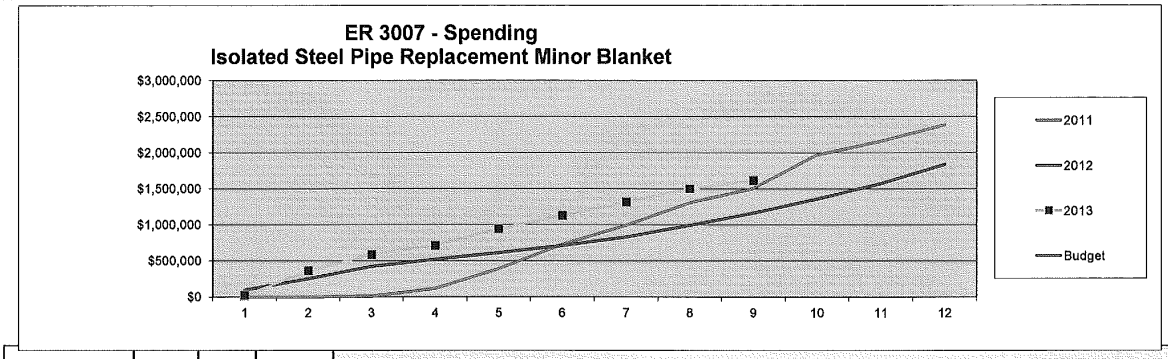
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager



Business Case	ERM Risk Reduction	Status Quo Raw Score	Risk on Completion Raw Score	Status Quo Risk					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Isolated Steel Replacement	3	12	9	3 - $2MM - $4MM	< Once / 5 years	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / 5 years	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				3 - $2MM - $4MM	< Once / 5 years	2 - Could result in a moderate negative impact to local, online, or industrial relationships and /or regional media coverage	< Once / 10 years	1 - < 1,500 Customer-hours	< Once / 50 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Overbuilt Pipe Replacement

ER No: **ER Name:**
3006 Overbuilt Pipe Replacement Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 2,700 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	900	83	73	72	73	75	73	84	72	73	75	74	73
2016	900	83	73	72	73	75	73	84	72	73	75	74	73
2017	900	83	73	72	73	75	73	84	72	73	75	74	73

Business Case Description:
This program will replace sections of existing natural gas distribution piping that has either experienced encroachment or have been built over/covered by customer-constructed improvements (i.e. decks, driveways, etc.). These types of situations restrict the Company's access to pipe. The project will address the replacement of sections of gas main and services that no longer can be operated safely. The replacements will be completed to enhance public safety. All types of overbuilds will be addressed with the primary focus of the project being overbuilds in manufactured/mobile home developments.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Overbuilt Pipe Replacement**		
Requested Amount	**$900,000**	**Assessments:**	
Duration/Timeframe	On Going Year Program	Financial:	7.00%
Dept.., Area:	Gas Operations	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Mandatory		
Mandate/Reg. Reference:	49 CFR 192.361(f)	Assessment Score:	131

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program will replace sections of existing gas piping that have experienced encroachment or have been overbuilt by customer constructed improvements (i.e. decks, driveways, etc.) that restricts the Company's access to pipe. It will address the replacement of sections of gas main and services that no longer can be operated safely. The replacements will be completed to enhance public safety. All types of overbuilds will be addressed with the primary focus of the project being overbuilds in manufactured/mobile home developments.	describe any incremental changes that this Program would benefit present operations	$ 900,000	$ -	$ -	4

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Avista will continue operating with increased risk due to overbuilds	n/a	$ -	$ -	$ -	12
Alternative 1: Brief name of alternative (if applicable)	Complete programmatic replacement of overbuilt pipe.	describe any incremental changes in operations	$ 900,000	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 500,000	$ -	$ -	$ 500,000
2013	$ 900,000	$ -	$ -	$ 470,000
2014	$ 900,000	$ -	$ -	$ 700,000
2015	$ 900,000	$ -	$ -	$ 900,000
2016	$ 900,000	$ -	$ -	$ 900,000
2017	$ 900,000	$ -	$ -	$ 900,000
2018	$ 900,000	$ -	$ -	$ 900,000
2019	$ -	$ -	$ -	$ 900,000
Total	$ 5,400,000	$ -	$ -	$ 5,670,000

Associated Ers (list all applicable):			
3006			

ER	2013	2014	2015	2016	2017	Total
3006	$ 900,000	$ 900,000	$ 900,000	$ 900,000	$ 900,000	$ 4,500,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 900,000	$ 900,000	$ 900,000	$ 900,000	$ 900,000	$ 4,500,000

Mandate Excerpt (if applicable):

49 CFR 192.361(f) "Installation of service lines under buildings. Where an underground service line is installed under a building:" [Not allowed w/o conduit]

Additional Justifications:

Avista operates with an increase risk to its customers and the general public when operating pipeline facilities that exist under structures.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Gas/Gas Overbuilt Pipe Replacement Program

Capital Program Business Case

AVISTA

Key Performance Indicator(s)
Expected Performance Improvements
KPI Measure:

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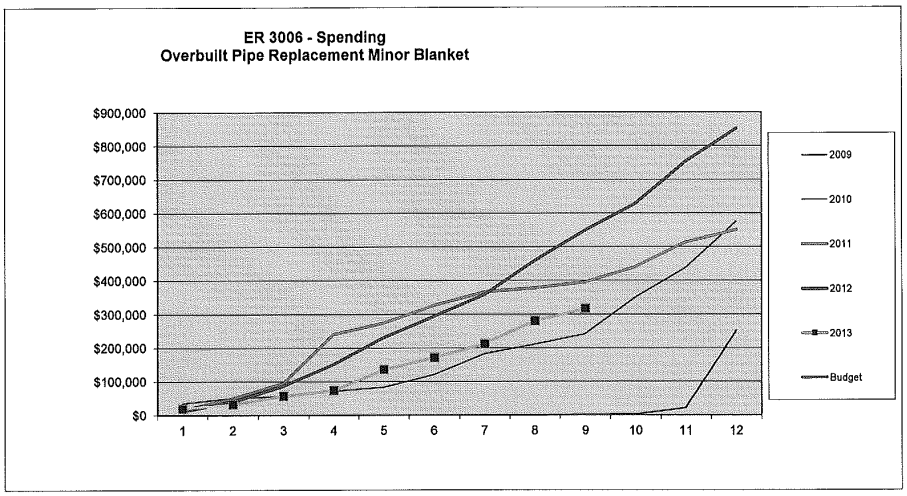
Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 01-09-2015
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Exhibit No. 11
Case Nos. AVU-E-15-05 and AVU-G-15-01
K. Schuh, Avista
Schedule 3, Page 126 of 295

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Regulator Station Reliability Replacement

ER No: **ER Name:**
3002 Regulator Reliable - Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 2,400** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	812	45	39	51	58	64	88	94	81	82	70	64	63	12
2016	800	45	39	51	58	64	88	94	81	82	70	64	63	
2017	800	45	39	51	58	64	88	94	81	82	70	64	63	

Business Case Description:
This annual project upgraded or replaced various regulator stations within the natural gas distribution system, improving station reliability and reducing operation and maintenance costs. Existing stations required upgrades due to many factors, such as replacement of obsolete equipment and improvement in regulation technology.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Regulator Station Reliability Replacement		
Requested Amount	$800,000	Assessments:	
Duration/Timeframe	On-Going Year Program	Financial:	7.00%
Dept.., Area:	Gas Operations	Strategic:	Life-cycle asset management
Owner:	Typically Director	Business Risk:	Business Risk Reduction >0 and <= 5
Sponsor:	Typically Executive Officer	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	PHMSA CFR 192.739	Assessment Score:	75

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace or upgrade existing regulator stations and meter stations to current Avista standards. This program will address enhancements that will improve system operating performance, safety, replacement of inadequate or antiquated equipment that is no longer supported, and ensure the reliable operation of metering and regulating equipment.	describe any incremental changes that this Program would benefit present operations	$ 600,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Maintenance may not be able to be completed properly due to antiquated equipment. This could result in fines from PUC, leaks on stations, and higher rates of equipment failure.	n/a	$ -	$ -	$ -	4
Alternative 1: Complete as described above.	Stations that require upgrade or replacement are identified on an on-going basis to ensure continued reliable operations. Stations that are not upgraded may pose a greater risk to leaks or affect system reliability.	Reduction in Reg Stn maintenance.	$ 600,000	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 600,000	$ -	$ -	$ 725,000
2015	$ 800,000	$ -	$ -	$ 800,000
2016	$ 800,000	$ -	$ -	$ 800,000
2017	$ 800,000	$ -	$ -	$ 800,000
2018	$ 800,000	$ -	$ -	$ 800,000
2019	$ 800,000	$ -	$ -	$ 800,000
2020+	$ 800,000	$ -	$ -	$ -
Total	$ 5,400,000	$ -	$ -	$ 4,725,000

Associated Ers (list all applicable):			
3002			

ER	2014	2015	2016	2017	2019	Total
3002	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 4,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 800,000	$ 4,000,000

Mandate Excerpt (if applicable):

CFR § 192.739 - Pressure limiting and regulating stations: Inspection and testing. Mandates that Regulating Stations must be inspected annually. If older components are not repairable, then maintenance might not be completed appropriately.

Additional Justifications:

Approximately 50% of the spending is required to satisfy the replacement of antiquated equipment or have an elevated safety risk. Approximately 50% of the spending is strategic and provides enhancements that facilitate operation and maintenance.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:

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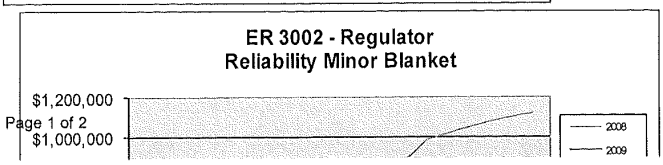

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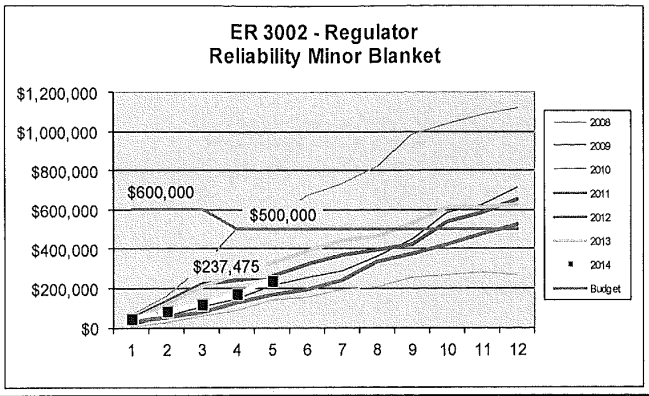
AVISTA



Attachment

Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

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Business Case	ERM Risk Reduction	Status Quo Raw Score	Risk on Completion Raw Score	Status Quo Risk					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Regulator Station Reliability Replacement	2	4	2	1 - < $200k	< Once / 10 years	2 - Could result in a moderate negative impact to local, online, or industrial relationships and /or regional media coverage	< Once / 10 years	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
				1 - Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedence, standard clean-up	< Once / 10 years	1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 10 years	1 - Potential for injury	< Once / 10 years
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				1 - < $200k	< Once / 10 years	1 - No likely impact on media or regulatory relationship.	< Once / 50 years	1 - < 1,500 Customer-hours	< Once / 50 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
				1 - Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedence, standard clean-up	< Once / 50 years	1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 50 years	1 - Potential for injury	< Once / 50 years

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Replace Deteriorating Steel Gas Systems

ER No: **ER Name:**
3001 Replace Deteriorating Gas System

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 3,000** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,000	40	40	60	70	80	120	120	110	110	90	80	80
2016	1,000	40	40	60	70	80	120	120	110	110	90	80	80
2017	1,000	40	40	60	70	80	120	120	110	110	90	80	80

Business Case Description:
This annual program will replace sections of existing steel gas piping that are suspect for failure or are showing signs of deterioration within the gas system. This program will address the replacement of sections of gas main with corrosion related issues that no longer operate reliably and/or safely. Sections of the gas system require replacement due to many factors including material failures, environmental impact, increased leak frequency, or coating problems. This program will identify and replace sections of steel pipe to improve public safety and system reliability. The projects primary focus is to address corrosion related pipe issues.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Repl. Deteriorating Steel Gas Systems
Requested Amount	$800,000
Duration/Timeframe	On-Going
Dept.., Area:	Gas Operations
Owner:	Mike Faulkenberry
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	

Assessments:	
Financial:	<= 0% CIRR
Strategic:	Life Cycle Programs
Operational:	Operations improved beyond current levels
Business Risk:	ERM Reduction >5 and <= 10
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	79

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace sections of existing steel gas piping that are suspect for failure or are showing signs of deterioration within the gas system. This program will address the replacement of sections of gas main with corrosion related issues that no longer operate reliably and/or safely. Sections of the gas system require replacement due to many factors including material failures, environmental impact, increased leak frequency, or coating problems. This program will identify and replace sections of steel pipe to improve public safety and system reliability; it's primary focus is to address corrosion related pipe issues.	describe any incremental changes that this Program would benefit present operations	$ 800,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	A number of locations have been identified in Medford, Klamath Falls, Roseburg, and La Grande OR that have older main at a higher operating risk related to leaks.	n/a	$ -	$ -	$ -	6
Alternative 1: Pipe Installation	Strategically replace sections of at-risk steel piping.	Reduced risk of system leaks	$ 800,000	$ -	$ -	1
Alternative 2:		describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 800,000	$ -	$ -	$ 800,000
2013	$ 600,000	$ -	$ -	$ 665,000
2014	$ 800,000	$ -	$ -	$ 1,280,000
2015	$ 1,000,000	$ -	$ -	$ 1,000,000
2016	$ 1,000,000	$ -	$ -	$ 1,000,000
2017	$ 1,000,000	$ -	$ -	$ 1,000,000
2018	$ 1,000,000	$ -	$ -	$ 1,000,000
2019	$ -	$ -	$ -	$ 1,000,000
Total	$ 6,200,000	$ -	$ -	$ 7,745,000

Associated Ers (list all applicable):

Current ER
3001

Mandate Excerpt (If applicable):

N/A

Additional Justifications:

This program has been executed historically using a qualitative assessment method at the district level.

AVISTA

Capital Investment Business Case

Resources Requirements: *(request forms and approvals attached)*

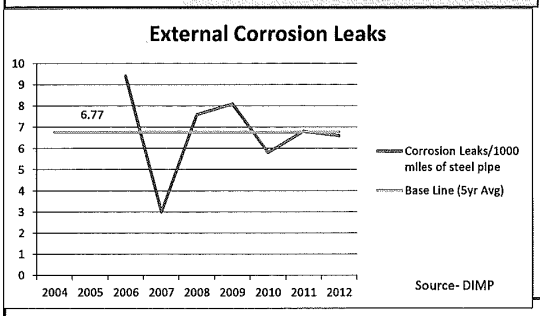
Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure: Leak Rate/ 1000 miles of steel pipe



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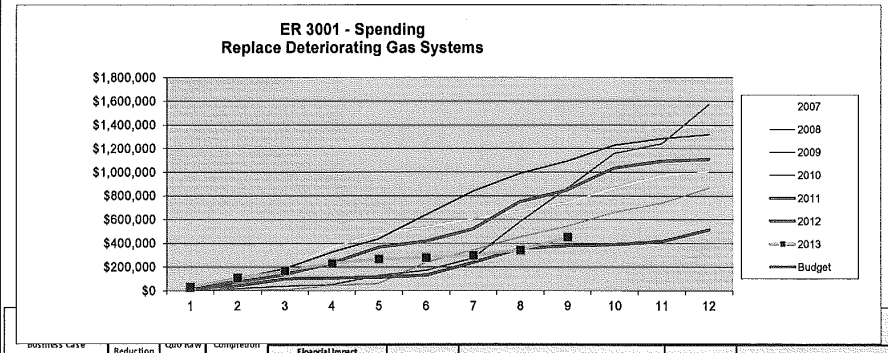
Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaluating the Program



Business Case	Reduction	Qtr0 Raw Score	Completion Raw Score	Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Repl. Deteriorating Steel Gas Systems	7	8	1	3 - $2MM - $4MM	< Once / 10 years	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / 10 years	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	**Likelihood**	**Safety and Health: Public**	**Likelihood**	**Safety and Health: Employee**	**Likelihood**
				1 - Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedence, standard clean-up	< Once / year	3 - Potential for serious injury Significant damage to equipment, property or business Public health infrastructure impact up to 48 hours	< Once / 10 years	1 - Potential for injury	< Once / 10 years
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	**Likelihood**	**Legal, Regulatory, External Business Affairs**	**Likelihood**	**Customer Service and Reliability (# customers * duration of an outage)**	**Likelihood**
				1 - < $200k	< Once / 50 years	1 - No likely impact on media or regulatory relationship.	< Once / 50 years	1 - < 1,500 Customer-hours	< Once / 50 years
				Environmental	**Likelihood**	**Safety and Health: Public**	**Likelihood**	**Safety and Health: Employee**	**Likelihood**
				1 - Isolated spill with 0 to low level PCBs, no migration, air emission minor exceedence, standard clean-up	< Once / 50 years	1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 50 years	1 - Potential for injury	< Once / 50 years

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-09-2015
C:\Users\vf9457\Desktop\Indexed Business Cases For KKB-5\GasWGD-10 - Update - Gas Deteriorated Steel Pipe Replacement Program

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: HP Pipeline Remediation Program

ER No: **ER Name:**
3057 Gas HP Pipeline Remediation Program

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 6,000** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	3,000	-	-	-	-	-	-	-	-	-	-	-	3,000
2017	3,000	-	-	-	-	-	-	-	-	-	-	-	3,000

Business Case Description:
The intent of this program is to replace segments of high pressure pipelines as determined by Avista's TIMP, DIMP, and Asset Management programs. Additionally, high pressure pipelines without Traceable, Verifiable, and Complete MAOP records will be replaced within this program.

The "Federal Mega-Rule" is expected to become final in 2015 that will make this work mandatory. Depending on the language of the rule, the annual spending levels may need to be increased.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**High Pressure Pipeline Remediation Prog**		
Requested Amount	**$5,000,000**	**Assessments:**	
Duration/Timeframe	5+ Year Program	Financial:	7.00%
Dept.., Area:	Gas Engineering	Strategic:	Life-cycle asset management
Owner:	Mike Faulkenberry	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	DOT-PHMSA 192.7xx	Assessment Score:	91

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
The intent of this program is to replace segments of high pressure pipelines as determined by Avista's TIMP, DIMP, and Asset Management programs. Additionally, high pressure pipelines without Traceable, Verifiable, and Complete MAOP records will be replaced within this program. The "Federal Mega-Rule" is expected to become final in 2015 that will make this work mandatory. Depending on the language of the rule, the annual spending levels may need to be increased.	Ensure the MAOP records are Traceable, Verifiable, and Complete.	$ 3,000,000	$ -	$ -	1

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Left unfunded, Avista is at risk of being non-compliant with Federal Codes and Standards, especially when the rule making becomes final.	n/a	$ -	$ -	$ -	8
Alternative 1: Program as described above	Replace high pressure gas pipelines	describe any incremental changes in operations	$ 3,000,000	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2015	$ 3,000,000	$ -	$ -	$ -
2016	$ 5,000,000	$ -	$ -	$ 3,000,000
2017	$ 5,000,000	$ -	$ -	$ 3,000,000
2018	$ 5,000,000	$ -	$ -	$ 3,000,000
2019	$ 5,000,000	$ -	$ -	$ 3,000,000
2020+	$ 5,000,000	$ -	$ -	$ -
Total	$ 28,000,000	$ -	$ -	$ 12,000,000

Associated Ers (list all applicable):			
tbd			

Printed: 01-30-2015
http://sharepoint/departments/budget/Business Cases/Gas/High Pressure Pipelin

Capital Program Business Case

ER	2015	2016	2017	2018	2019	Total
tbd	$ 3,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 23,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 3,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 23,000,000

Mandate Excerpt (if applicable):

CFR 192.7xx

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity
Contract Labor:	☑ YES	☑ NO	

Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Facilities:	☐ YES - attach form	☑ NO or Not Required
Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

Prepared signature

Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Capital Program Business Case

This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Gas Planned Meter Change-out ("PMC") Program - Capital Replacements

ER No: **ER Name:**
3055 Gas Meter Replacement Non-Revenue

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 3,184 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,030	80	64	70	77	85	97	113	92	93	89	82	86
2016	1,061	81	66	72	79	87	100	117	96	97	92	85	89
2017	1,093	82	67	74	82	90	104	120	99	100	95	87	92

Business Case Description:
This annual program will provide for replacement of gas meters and associated measurement equipment that are completed in association with the Gas Planned Meter Change-out (PMC) program. Avista is required by commission rules and an approved Tariff in WA, ID, and OR to test meters for accuracy and ensure proper metering performance. Execution of this program on an annual basis will ensure the continuation of reliable gas measurement. This program will include the labor and minor materials associated with the PMC program. Major materials (meters, regulators, and ERTs) will be charged to the appropriate growth ERs.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Gas PMC Program
Requested Amount	$1,000,000
Duration/Timeframe	On-Going Year Program
Dept.., Area:	Gas Engineering
Owner:	Mike Faulkenberry
Sponsor:	Don Kopczynski
Category:	Mandatory
Mandate/Reg. Reference:	WAC 480-90-348, IDAPA 31.31.01.151-200, OAR,

Assessments:

Financial:	High - Exceeds 12% CIRR
Strategic:	Reliability & Capacity
Business Risk:	Business Risk Reduction >10 and <= 15
Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	185

Recommend Program Description:

This annual program will provide for replacement of gas meters and associated measurement equipment that are completed in association with the Gas Planned Meter Change out (PMC) program. Avista is required by commission rules and an approved Tariff in WA, ID, and OR to test meters for accuracy and ensure proper metering performance. Execution of this program on an annual basis will ensure the continuation of reliable gas measurement. This program will include the labor and minor materials associated with the PMC program. Major materials (meters, regulators, and ERTs) will be charged to the appropriate growth ERs.

Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
	$ 1,000,000	$ -	$ -	0

Alternatives:		Performance	Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Avista would be out of compliance with state administrative requirements in WA, ID, and OR related to gas measurement and could face fines if not completed.	n/a	$ -	$ -	$ -	0
Alternative 1:	Replacement gas meters, ERTS, and regulators as part of the gas meter PMC program and complete strategic enhancement of the telemetry and measurement technology systems.		$ 1,000,000	$ -	$ -	0
Alternative 2:				$ -	$ -	0
			$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 1,000,000	$ -	$ -	$ 1,175,000
2015	$ 1,030,000	$ -	$ -	$ 1,030,000
2016	$ 1,060,900	$ -	$ -	$ 1,060,900
2017	$ 1,092,727	$ -	$ -	$ 1,092,727
2018	$ 1,125,509	$ -	$ -	$ 1,125,509
2019	$ -	$ -	$ -	$ 1,159,274
Total	$ 5,309,136	$ -	$ -	$ 6,643,410

Associated Ers (list all applicable):

3055

ER	2013	2014	2015	2016	2017	Total
3055	$ -	$ 1,000,000	$ 1,030,000	$ 1,060,900	$ 1,092,727	$ 4,183,627
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 1,000,000	$ 1,030,000	$ 1,060,900	$ 1,092,727	$ 4,183,627

Mandate Excerpt (If applicable):

see below

Additional Justifications:

see below

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

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AVISTA

Capital Program Business Case

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure: # of meter changed out vs. # required (this changes annually)

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Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Marjie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

MANDATE EXCERPT: OAR 860-023-0015(3) - "Each energy utility shall adopt schedules for periodic tests and repairs of meters. The length of time meters shall be allowed to remain in service before receiving periodic tests and repairs is to be determined from periodic analysis of the accuracy of meters tested. The schedules adopted shall be subject to the Commission's approval."

ADDITIONAL COMMENTS: Program required to reliably serve customers, ensure accurate measurement, and properly bill gas revenue.
These charges had historically gone into ER3005, the Business Case for ER3005 will be adjusted to show the change starting in 2014.
Historically ER3117 had been combined with this program, as of 1-1-14, it will be on its own Business Case.

Previous Scoring:

	Business Case	Business Risk Reduction	Unfunded Raw Score	Revised Risk Raw Score	Unfunded Project/Program Risk (no funding if a project, cease funding if an existing program)					
3					Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
5	Gas PMC Program_Capital Replacements	12	16	4	2 - $200k - $2MM	< Once / year	4 - Potential for regulators to impose onerous restrictions or Board or management to make leadership change	< Once / year	1 - < 1,500 Customer-hours	< Once / 10 years
6					Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
7							1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 10 years	1 - Potential for injury	< Once / 50 years
8					Revised Risk if funded/completed					
9					Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
10					1 - < $200k	< Once / year	1 - No likely impact on media or regulatory relationship.	< Once / 50 years	1 - < 1,500 Customer-hours	< Once / 50 years
11					Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
12							1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 50 years	1 - Potential for injury	< Once / 50 years

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Rathdrum Prairie HP Main Reinforcement Project

ER No: **ER Name:**
3301 Rathdrum Prairie HP Gas Reinforcement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 10,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	5,000	-	-	-	-	-	-	-	-	-	5,000	-	-
2017	5,000	-	-	-	-	-	-	-	-	-	5,000	-	-

Business Case Description:
Based on recent load studies, load growth on NWP's Coeur d'Alene lateral will exceed both Avista's contractual delivery amounts as well as the physical capacity of Northwest Pipeline. This project includes the expansion of a gate station at Chase Road off the GTN pipeline to support a phased-in high-pressure pipeline reinforcement to meet projected capacity requirements in Post Falls and Coeur d'Alene, which are currently fed from Northwest Pipeline.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	**Rathdrum Prairie HP Gas Reinforcement**	**Assessments:**	
Requested Amount	**$0**		
Duration/Timeframe	3 Year Project	Financial:	14.48%
Dept.., Area:	Gas Engineering	Strategic:	Reliability & Capacity
Owner:	Mike Faulkenberry	Business Risk:	Bussiness Risk Reduction >0 and <= 5
Sponsor:	Don Kopczynski	Project Risk:	Moderate certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	Growth - Obligation to Serve	Assessment Score:	81

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Project includes expansion of a budgeted and approved gate station at Chase Road off the GTN pipeline to support a phased-in high-pressure pipeline reinforcement to be used to meet projected capacity requirements in Post Falls and Coeur d'Alene currently fed from Northwest Pipeline. Based on recent load studies, load growth on NWP's Coeur d'Alene lateral will exceed both Avista's contractual delivery amounts as well as the physical capacity of Northwest Pipeline. This expansion is to be phased-in over 2 years and will provide Avista not only the ability to off-load certain NWP contracts costing $1,550,000 annually, but provide greater flexibility to reinforce the distribution system incrementally and at reduced cost. Additionally, Avista will put the new facilities into rate base providing an opportunity to earn on the investment. Based on current load growth projections, Engineering would start in 2015 with construction in 2016-2017.	This project will also allow more flexibility on the system to purchase gas from either GTN or NWP depending on pricing.	$ 10,000,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Contractual and physical pipeline deficiencies on NorthWest Pipeline's CDA Lateral could result in an inablity to serve customers on a design day.	n/a	$ -	$ -	$ -	6
Alternative 1: Brief name of alternative (if applicable)	Construct project as proposed above.		$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Alternative: The alternative to expanding and building out on the Avista system would be to pay NWP for a mainline expansion on their system. The expansion would include the installation on the NWP mainline of up to 6 miles of 10" pipe beginning at or near the WA/ID border (west of Post Falls). Additionally Avista would be required to refurbish and expand at least 4 meter stations along the CDA lateral to accomodate the projected load growth.	Avista's HP system would not be looped in this case, so no flexibility regarding gas sourcing would be provided.	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ -	$ -	$ -	$ -
2015	$ 100,000	$ -	$ -	$ 100,000
2016	$ 4,900,000	$ -	$ -	$ 4,900,000
2017	$ 5,000,000	$ -	$ -	$ 5,000,000
2018				$ -
Total	$ 10,000,000	$ -	$ -	$ 10,000,000

Associated Ers (list all applicable):			
tbd			

ER	2013	2014	2015	2016	2017	Total
tbd	$ -	$ -	$ 100,000	$ 4,900,000	$ 5,000,000	$ 10,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 100,000	$ 4,900,000	$ 5,000,000	$ 10,000,000

Mandate Excerpt (if applicable):

Obligation to serve

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

January-15	Design Ph. 1	January-00	open	January-00	open
June-16	Construct Ph. 1	January-00	open	January-00	open
June-16	Design Ph. 2	January-00	open	January-00	open
May-17	Construct Ph. 2	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can be measured.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probability
Contract Labor: ☑ YES ☐ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

AVISTA

Capital Program Business Case

Key Performance Indicator(s)
Expected Performance Improvements
KPI Measure:

Prepared signature

Reviewed signature Director/Manager

Other Party Review signature
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Chase Road Gate Station

ER No: **ER Name:**
3246 Construct Chase Rd Gate Stn Post Falls ID

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 0** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	5,987	-	-	-	-	-	-	-	-	-	-	-	-	5,987
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
This project reinforces gas service to the Rathdrum and greater Coeur d'Alene area by installing a new gate station near Chase Road and extending high pressure main to reinforce the existing Rathdrum/Couer d'Alene high pressure distribution system.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

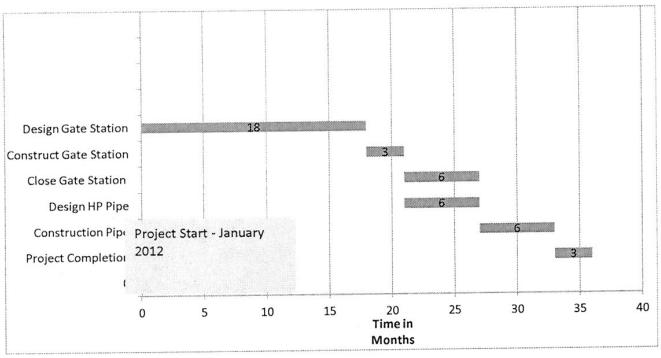
Investment Name:	**Chase Rd. Gate Station Installation**
Requested Amount	**$5,400,000**
Duration/Timeframe	no. years: 2 Year Project: 2013/2014
Dept.., Area:	Gas Engineering
Owner:	Mike Faulkenberry
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	IDAPA 31.31.01.151

Assessments:	
Financial:	MH - >= 9% & <12% CIRR
Strategic:	Reliability & Capacity
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >0 and <= 5
Project/Program Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	76

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This project will reinforce the Rathdrum and greater Coeur d'Alene area by installing a new gate station near Chase Rd and extending high pressure main to reinforce the existing Rathdrum/CDA high pressure distribution system. The CDA area gas demand exceeds the existing Rathdrum gate station capacity on a design day. Reinforcement of the system is required to continue to provide reliable service to the Rathdrum and greater CDA area. Furthermore, the addition of the new gate station will provide for future growth opportunities in the, Post Falls area.	describe any incremental changes that this project would benefit present operations	$ 4,300,000	$ -	$ -	2

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	The existing Rathdrum Gate station is near capacity on a design day. Avista will be challenged to serve customers as the CDA area growths.	n/a	$ -	$ -	$ -	6
Alternative 1:	Install new gate station near Chase Road and loop the existing HP distribution piping. This option allows for additional system reliability over upgrading the existing Rathdrum gate station due to looping of the HP distribution piping and accommodate future growth in the Post Falls area.	looped HP system is a benefit	$ 5,400,000	$ -	$ -	2
Alternative 2:	Upgrade existing Rathdrum Gate Station to accommodate increase flows and loop existing high pressure gas main.	describe any incremental changes in operations	$ 4,000,000	$ -	$ -	2
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered.	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous		$ -	$ -	$ -
2012	$ -	$ -	$ -	$ -
2013	$ 1,100,000	$ -	$ -	$ 1,200,000
2014	$ 5,400,000	$ -	$ -	$ 4,670,000
2015	$ -	$ -	$ -	$ -
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 6,500,000	$ -	$ -	$ 5,870,000

Milestones should be general. In some cases it may be as simple as project start, project complete. Use your judgement on project progress so that progress can be measured.

Milestones (high level targets)

January-12	Project Started	April-14	HP Pipe Designed
April-13	Gate - Major Procurement Complete, Initiate Interna	October-14	HP Pipe Construct
June-13	Gate Station Plan/Design	December-14	Close Project
July-13	Construction Start		
October-14	Gate - In Service		

Associated Ers (list all applicable): Current ER 3246

Mandate Excerpt (if applicable): IDAPA 31.31.01.151, "Service to the customer shall assure the customer of adequate pressure, a definite heat content, and the accurate measurement of gas."

Additional Justifications:

Engineering studies support the need for reinforcement of the Rathdrum Gate Station. (See Attached Graph). Currently the Chase Rd, Post Falls area does not need reinforced but the addition of a gate station at Chase Road is the most strategic location for a gate station and will result in gate station locations that are balance across Spokane Valley and the Rathdrum Prairie.

Printed: 5/18/2015
http://sharepoint/departments/budget/Business Cases/Gas/Gas Chase Rd Gate Stn and HP Main Project

Capital Investment Business Case

AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:

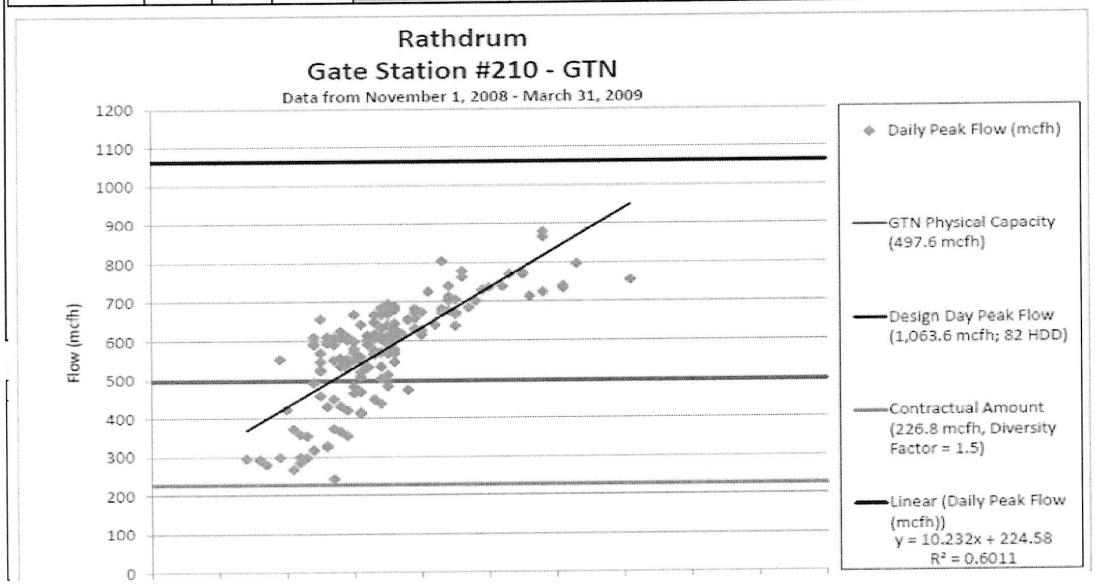
Prepared signature

Reviewed signature
Director/Manager

Other Party Review signature Margi Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaluating the project

Business Case	ERM Risk Reduction	Status Quo Raw Score	Risk on Completion Raw Score	Status Quo Risk					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Chase Rd. Gate Station Installation	4	6	2	2 - $200k - $2MM	< Once / 10 years	2 - Could result in a moderate negative impact to local, online, or industrial relationships and /or regional media coverage	< Once / 10 years	3 - >7,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				1 - < $200k	< Once / 10 years	1 - No likely impact on media or regulatory relationship.	< Once / 50 years	1 - < 1,500 Customer-hours	< Once / 10 years
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood



Printed 5/18/2015
http://sharepoint/departments/budget/Business Cases/Gas/Gas Chase Rd Gate Stn and HP Main Project

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Natural Gas Distribution

Business Case Name: Encoder Receiver Transmitter ("ERT") Replacement Program

ER No: **ER Name:**
3054 Gas ERT Replacement Program

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 1,340** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	402	31	25	27	30	33	37	43	36	36	35	32	36
2016	444	33	27	30	33	37	41	47	41	41	39	35	41
2017	494	35	29	33	36	41	47	52	46	46	44	39	46

Business Case Description:
This program covers labor required for the consistent replacement of 19,500 gas ERTs annually for a 12-year cycle, beginning in the year 2015. Analyses has identified that a levelized replacement strategy will minimize the effect of unit failures as well as introduce new, levelized populations of ERTs into the system for future predictive maintenance. Large populations of ERTs are predicted to fail in quantities of over 20,000 units per year at the peak, causing an operations burden of personnel and equipment as well as an unreasonable number of estimated bills (currently Avista experiences just a couple hundred failures annually due to small ERT populations). The cost of the ERT will go against ER1053, not this business case.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**ERT Replacement Program**
Requested Amount	**$400,000**
Duration/Timeframe	12 Year Program
Dept.., Area:	Gas Engineering
Owner:	Mike Faulkenberry
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	91

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
This program covers the consistent replacement of 19,500 gas ERTs annually for a 12 year cycle, beginning in the year 2015. Analysis has identified that a levelized replacement strategy will minimize the effect of unit failures as well as introduce new, levelized populations of ERTs into the system for future predictive maintenance. Large populations of ERTs are predicted to fail in quantities of over 20,000 units per year at the peak, causing an operations burden of personnel and equipment as well as an unreasonable number of estimated bills (currently Avista experiences just a couple hundred failures annually due to small ERT populations). Cost of the ERT will go against ER1053, not this business case.	As ERTs are replaced in a planned way, the impact to operations resources and customer billing estimates can	$ 901,890	$ 8,000	$ -	1

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
Unfunded Program:	If unfunded, the number of field ERT failures will increase to an unsustainable level. At its peak, more than 20,000 ERTs are predicted to fail annually, each requiring a maintenance call and estimated bill for customers. Avista experiences only a couple hundred failures currently due to small	n/a	$ 1,058,000	$ 117,000	$ -	2
Alternative 1: Brief name of alternative (if applicable)	12 year program: Replace approx 19,500 ERTs annually until all ERTs are refreshed. Replacements beyond this 12 year cycle then occur at 14 years of age, so there will be a lag & re-set of this program at that time, however, new populations will have been levelized so there are no more than 19,500	As ERTs are refreshed, trouble calls for field failures	$ 901,890	$ 8,000	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Prior to the recent analysis, the belief was that replacing units older than 10 years of age was the best advantage. This modern study has shown that doing a 'birthday' replacement at 10 years will pull units with too much life still available, and does not introduce level populations back into the system	Aggressive, early replacement is not desired	$ 1,950,000	$ 690	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ -	$ -	$ -	$ -
2015	$ 901,890	$ -	$ -	$ 401,890
2016	$ 943,960	$ -	$ -	$ 443,960
2017	$ 994,140	$ -	$ -	$ 494,140
2018	$ 1,044,320	$ -	$ -	$ 544,320
2019	$ 1,096,536	$ -	$ -	$ 596,536
Total	$ 4,980,846	$ -	$ -	$ 2,480,846

Associated Ers (list all applicable):			
3054			

ER	2014	2015	2016	2017	2018	Total
3054	$ -	$ 901,890	$ 943,960	$ 994,140	$ 1,044,320	$ 3,884,310
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 901,890	$ 943,960	$ 994,140	$ 1,044,320	$ 3,884,310

Mandate Excerpt (if applicable):

Additional Justifications:

see below

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☐ NO or Not Required
Contract Labor:	☐ YES	☐ NO		Facilities:	☐ YES - attach form	☐ NO or Not Required
				Capital Tools:	☐ YES - attach form	☐ NO or Not Required
				Fleet:	☐ YES - attach form	☐ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Gas/Gas ERT Replacement Program

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	# of ERTs replaced vs. planned

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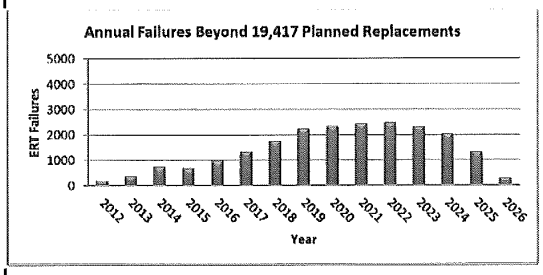
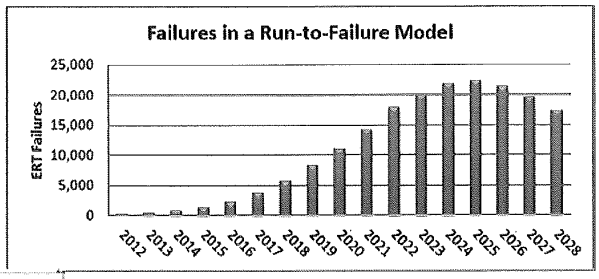
Reviewed signature
Director/Manager

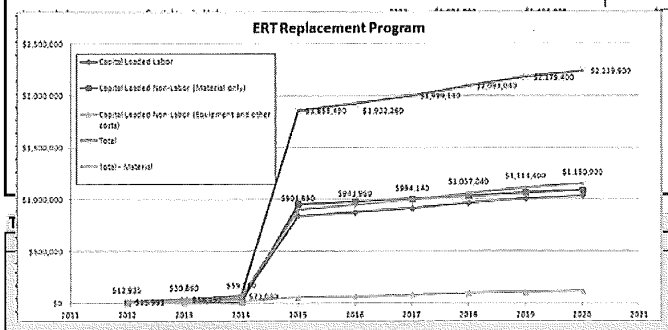
Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

Avista has over 230,000 gas ERTs in service since the year 2000. There have been large population years, such as 2004 and 2005, which represent over 100,000 units alone. These ERTs run on batteries that will eventually discharge and need replacement, and are predicted to happen in large quantities over short periods of time, peaking at over 20,000 field failures a year unless organized replacements begin. A levelized replacement rate of approximately 19,500 units annually, starting in 2015, balances the maximum life of the battery while reducing the effects of field failures to a manageable level. The levelized replacement process also introduces smaller populations of ERTs back into the system so the next time batteries need replacing there will only be about 19,500 unit families in place for any given future year. (Refer to Asset Management Report Titled "ERT Replacement Strategy Development, 6/14/12)







Review Cycles 2012-2016	
Date	Template

Printed 11-05-2014
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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Gas Underground Storage

Business Case Name: Jackson Prairie Storage

ER No: **ER Name:**
7201 Jackson Prairie Storage

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 3,648 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,356	53	27	115	37	112	378	324	231	3	37	37	3
2016	1,175	98	98	98	98	98	98	98	98	98	98	98	98
2017	1,356	53	27	115	37	112	378	324	231	3	37	37	3

Business Case Description:
Jackson Prairie (JP) Underground Storage Facility stores natural gas. Avista owns this facility as a 1/3 partner with Puget Sound Energy and Williams' Northwest Pipeline. Puget Sound Energy is the managing partner for the facility, which is located in Chehalis, WA. The requested capital represents Avista's 1/3 share of the capital needed to maintain the existing facility and maintain equal ownership status. The purpose of the facility is to allow Avista to serve customers on a peak day, and to purchase natural gas at potentially lower costs during off-peak periods and store that gas for use during high cost periods.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Jackson Prairie Storage
Requested Amount	$1,000,000
Duration/Timeframe	20+ Year Program
Dept.., Area:	Natural Gas Resources
Owner:	Steve Harper
Sponsor:	Jason Thackston
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	High - Exceeds 12% CIRR
Strategic:	Reliability & Capacity
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >15
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	116

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Jackson Prairie (JP) Underground Storage Facility stores natural gas. Avista owns this facility as a 1/3 partner with Puget Sound Energy and Williams' Northwest Pipeline. Puget Sound Energy is the managing partner for the facility which is located in Chehalis, WA. The requested capital represents Avista's 1/3 share of the capital needed to maintain the existing facility and maintain equal ownership status. The purpose of the facility is to allow Avista to serve customers on a peak day, and to purchase natural gas at potentially lower costs during off-peak periods and store that gas for use during high cost periods.	describe any incremental changes that this Program would benefit present operations	$ 1,000,000	$ -	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Not recommended-- Not to fund Avista's 1/3 capital obligation. Failure by Avista to fund its 1/3 capital obligation would dilute Avista's ownership percentage. Voting rights would be deminished and therefore decisions made by other partners would not be in the best interest of Avista or its customers.	n/a		$ -	$ -	20
Alternative 1: Brief name of alternative (if applicable)	Recommended -- Support Avista's 1/3 capital obligation. Estimated to be approximately $1,000,000 per year looking forward. Cost is estimated to be $539,000 in 2014. Capital needs vary year-to-year, but relate to well, compression, pipe, separator/dehydration, metering and control facilities.	describe any incremental changes in operations	$ 1,000,000	$ -	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Not recommended-- Fund a lesser amount than Avista's 1/3 capital obligation. Voting rights would be deminished and therefore decisions made by other partners would not be in the best interest of Avista or its customers.	describe any incremental changes in operations	$ -	$ -	$ -	2
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous		$ -	$ -	$ -
2012	$ 630,000	$ -	$ -	$ 630,000
2013	$ 550,000	$ -	$ -	$ 550,000
2014	$ 539,000	$ -	$ -	$ 539,000
2015	$ 1,000,000	$ -	$ -	$ 1,356,300
2016	$ 1,000,000	$ -	$ -	$ 1,175,000
2017	$ 1,000,000	$ -	$ -	$ 1,117,000
2018	$ 1,000,000	$ -	$ -	$ 1,210,000
2019	$ -	$ -	$ -	$ 1,085,000
Future	$1,000,000/year	$ -	$ -	$ -
Total	$ 5,719,000	$ -	$ -	$ 7,662,300

Associated Ers (list all applicable):
ER 7201

Mandate Excerpt (if applicable):
provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:
While not a mandated project by definition, this Program is not one that can easily be terminated. The use of JP is documented and acknowledged as part of Avista's Integrated Resource Plan.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☑ Low Probability ☐ Medium Probability ☐ High Probability
Contract Labor: ☐ YES ☑ NO

Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Facilities:	☐ YES - attach form	☑ NO or Not Required
Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure:	Avoided gas costs through use of JP storage
	Fill in the name of the KPI here

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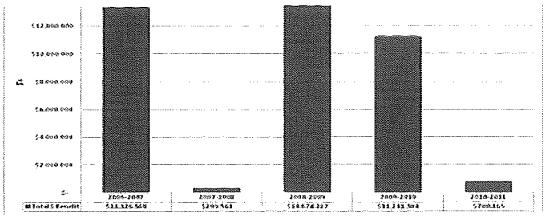
Capital Investment Business Case

AVISTA



Reviewed signature _____ Director/Manager

Other Party Review (if necessary) signature Margie Stevens Director/Manager

Business Case	ERM Risk Reduction	Status Quo Raw Score	Risk on Completion Raw Score	Status Quo Risk					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
Jackson Prairie Storage	18	20	2	5 - > $10MM	< Once / year	3 - Could result in a sustained negative impact to local, online, or industrial relationships and / or national / global media coverage	< Once / year		
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / year		
				Risk upon Completion					
				Financial Impact (Consequential Costs/Revenues)	Likelihood	Legal, Regulatory, External Business Affairs	Likelihood	Customer Service and Reliability (# customers * duration of an outage)	Likelihood
				1 - < $200k	< Once / 10 years	1 - No likely impact on media or regulatory relationship.	< Once / 50 years		
				Environmental	Likelihood	Safety and Health: Public	Likelihood	Safety and Health: Employee	Likelihood
						1 - Potential for injury Public health infrastructure impact up to 8 hours	< Once / 50 years	1 - Potential for injury	< Once / 50 years

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Transportation

Business Case Name: Fleet Budget

ER No: **ER Name:**
7000 Transportation Equip

Approved Business Case Spend Amount 2015-2017 ($000s - System): **$ 23,100** [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	10,184	643	641	641	641	642	641	643	641	641	642	642	641	2,484
2016	7,700	643	641	641	641	642	641	643	641	641	642	642	641	
2017	7,700	643	641	641	641	642	641	643	641	641	642	642	641	

Business Case Description:

Fleet utilizes a Vehicle Replacement Model analysis program to determine which vehicles are replaced for the next budget cycle. This program utilizes our internal data regarding equipment utilization, repair costs, purchase costs, disposal costs, and business needs across all classes of equipment. This provides a consistent and level spend to cover all departments effectively. This contributes to the operational readiness for all departments and our Company as a whole. The 5 year projection includes analysis of 19 classes of vehicles in total and the replacement of over 600 assets.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Fleet Budget**
Requested Amount	**$ 7,700,000**
Duration/Timeframe	5 Year Program
Dept.., Area:	Fleet Services
Owner:	Chris Schlothauer
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >0 and <= 5
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	75

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Fleet utilizes a VRM (Vehicle Replacement Model) analysis program to determine which vehicles get replaced for the next budget cycle. This program utilizes our internal data regarding equipment utilization, repair costs, purchase costs, disposal costs, and business needs across all classes of equipment. This provides a consistent and level spend to cover all departments effectively. This contributes to the operational readiness for all departments and our company as a whole. The 5 year projection includes analysis of 19 classes in total and the replacement of over 600 assets.	describe any incremental changes that this Program would benefit present operations	$ 7,700,000	$ -	$ -	4

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program: Replace only on failure	Continue to maintain and repair equipment, but replace only when repairs are no longer an option. Minimal Capital expenditure with a maximum expenditure on O&M.	Unreliable equipment, failed commitments	$ -	$ 2,135,679	$ -	9
Reduced Spend	Cut Spend by 50% to focus only on equipment that is at the end of it's life cycle, is at the upper end of repair costs, and is difficult to replace with a rental if equipment fails mid-year. This will create less spend on Capital, with an increase in O&M spend.	Less reliable equipment. Risk to operation's	$ 3,850,000	$ 1,914,099	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 7,595,175	$ -	$ -	$ 5,700,406
2015	$ 7,700,000	$ -	$ -	$ 8,270,000
2016	$ 8,085,000	$ -	$ -	$ 7,700,000
2017	$ 8,489,250	$ -	$ -	$ 7,700,000
2018	$ 8,913,713	$ -	$ -	$ 7,700,000
2019	$ 9,359,398	$ -	$ -	$ 7,700,000

Associated Ers (list all applicable):			
7000			

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http://sharepoint/departments/budget/Business Cases/Fleet/Fleet Budget

AVISTA

Capital Program Business Case

2020+	$ -	$ -	$ -	$ -
Total	$ 50,142,536	$ -	$ -	$ 44,200,406

ER	2015	2016	2017	2018	2019	Total
7000	$ 7,700,000	$ 8,085,000	$ 8,489,250	$ 8,913,713	$ 9,359,398	$ 42,547,361
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,700,000	$ 8,085,000	$ 8,489,250	$ 8,913,713	$ 9,359,398	$ 42,547,361

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO

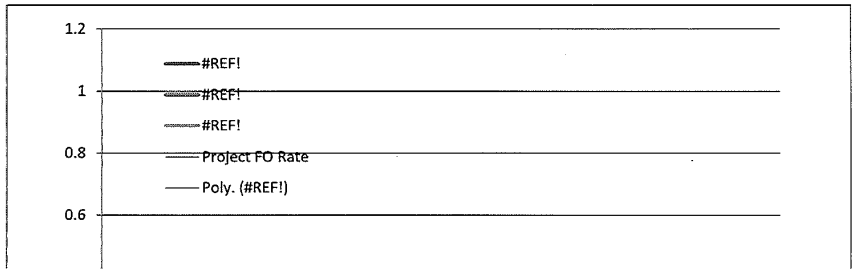
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☑ YES - attach form ☐ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens

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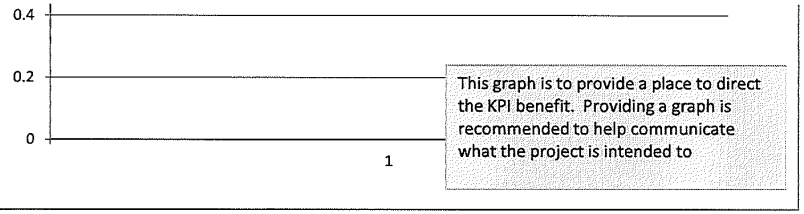

(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

Capital Program Business Case

Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: AvistaUtilities.com Redesign

ER No: **ER Name:**
5143 AU.com & AVANet Redevelopment

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 6,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	4,125	-	-	-	-	-	-	-	-	-	-	4,125	-
2016	2,000	-	-	-	-	-	-	-	-	-	-	-	2,000
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
Refresh of the AvistaUtilities.com website to improve navigation, updating the look and feel of the overall site, creating a new homepage layout, and improving self-service and search functionality for customers. Since 2008, web usage on the AvistaUtilities.com site has increased by more than 55% and usability standards have since then changed to incorporate the emergence of mobile app technologies. The refresh includes improved functionality to allow for more customer self-serve use on our website.

Offsets:
$100,000 of additional O&M costs are included with this business case which negate the $100,000 of O&M savings (see attached business case "Other Costs.") These savings are related to reduction in labor due to efficiencies gained by customers being able to navigate the website effectively. No offset has been included in the O&M Offset adjustment for this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	AvistaUtilities.com Redesign
Requested Amount	$1,500,000
Duration/Timeframe	3 Year Project
Dept.., Area:	Customer Solutions
Owner:	Dana Anderson, Jim Corder
Sponsor:	Dana Anderson, Jim Kensok
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Customer Experience
Business Risk:	Business Risk Reduction >5 and <= 10
Project Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	77

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
See Attached Project Charters.	Improved usability for customers and improved capability for information sharing and delivery to increase overall employee engagement	$ 1,000,000	$ 500,000	$ -	0

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Not consistent with industry and web best practices. 14% of customers are currently unable to complete transactions on the web and of those that can consistent feedback indicates that transactional tasks are time consuming and sometimes unusable.	n/a	$ -	$ -	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Redesign of AvistaUtilities.com	Improved usability, capability and new technology	$ 1,000,000	$ 500,000	$ -	0
Alternative 2: Brief name of alternative (if applicable)			$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)			$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 10,452	$ -	$ -	$ 10,452
2013	$ 1,000,000	$ 100,000	$ (50,000)	$ 419,000
2014	$ 500,000	$ 100,000	$ (100,000)	$ 1,037,000
2015	$ -	$ 100,000	$ (100,000)	$ 4,000,000
2016	$ -	$ 100,000	$ (100,000)	$ 2,000,000
2017	$ -	$ 100,000	$ (100,000)	$ -
Total	$ 1,500,000	$ 500,000	$ (450,000)	$ 7,466,452

Associated Ers (list all applicable):			
New			

ER	2013	2014	2015	2016	2017	Total
New	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

1. The benefits are defined in the attached charter. In general they relate to a redesigned site for improved usability for customers as well as improved tools for employee information.
2. This project supports the Customer Engagement strategy by improving the website to better serve customers.
3. This Project supports the Employee strategy by improving capability for delivering information to employees.

Milestones (high level targets)

September-12	Project Start	January-00	open	January-00	open
January-13	Phase 0 Complete	January-00	open	January-00	open
April-13	Phase 1 Complete	January-00	open	January-00	open
August-13	Phase 2 Complete	January-00	open	January-00	open
February-14	Phase 3 Complete	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

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Capital Program Business Case

AVISTA

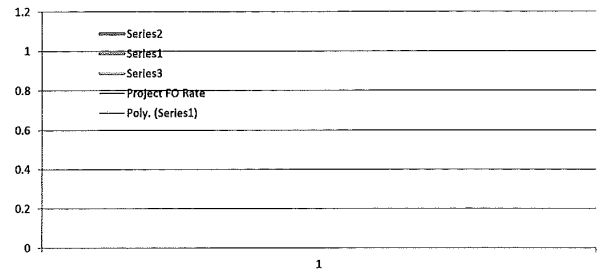
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required	Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required	Fleet:	☐ YES - attach form	☑ NO or Not Required

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Attachment 1: Project Charter
Attachment 2: Charter Addendum for AU.com
Attachment 2: Charter Addendum for AVAnet

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Enterprise Business Continuity Plan

ER No: **ER Name:**
5010 Enterprise Business Continuity

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,350 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	450	-	-	113	-	-	113	-	-	113	-	-	113
2016	450	-	-	113	-	-	113	-	-	113	-	-	113
2017	450	-	-	113	-	-	113	-	-	113	-	-	113

Business Case Description:
Avista has developed an Enterprise Business Continuity Plan ("EBCP") to facilitate emergency response and business continuity activities in fulfillment of our mission to provide safe and reliable service to our customers. The program supports the Enterprise Business Continuity objectives by providing an all-hazards framework for emergency response, technology recovery, alternate facilities and business continuity activities. The program provides communications, escalation and operational procedures necessary for efficient response to events.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Enterprise Business Continuity Plan		
Requested Amount	$482,000	Assessments:	
Duration/Timeframe	5 Year Program	Financial:	High - Exceeds 12% CIRR
Dept.., Area:	Enterprise Technology	Strategic:	Other
Owner:	Clay Storey/Jim Corder	Operational:	Operations improved beyond current levels
Sponsor:	Jim Kensok	Business Risk:	ERM Reduction >10 and <= 15
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	106

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Avista has developed an Enterprise Business Continuity Plan (EBCP) to facilitate emergency response and business continuity activities in fulfillment of our mission. The program supports the Enterprise Business Continuity objectives by providing an all-hazards framework for emergency response, technology recovery, alternate facilities and business continuity activities. The program provides communications, escalation and operational procedures necessary for efficient response to events. See "Additional Justifications:" for more information.	This is a risk mitigation program	$ 482,000	$ 498,755		4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Without this program the company's ability to prepare for and respond to emergency event will be diminished. This will have the effect of creating longer delays in the restoration of business services for our customer and shareholders, potentially even action by the utility commission against Avista.	n/a	$ -	$ -	$ -	25
Alternative 1: Brief name of alternative (if applicable)	Avista has developed an Enterprise Business Continuity Plan (EBCP) to facilitate emergency response and business continuity activities in fulfillment of our mission. The program supports the Enterprise Business Continuity objectives by	This is a risk mitigation program	$ 482,000	$ 498,755	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
	$ 482,000			$ 482,000
2012	$ 482,000	$ 488,838	$ -	$ 482,000
2013	$ 600,000	$ 549,558	$ -	$ 482,000
2014	$ 600,000	$ 610,278	$ -	$ 482,000
2015	$ 450,000	$ 655,818	$ -	$ 450,000
2016	$ 450,000	$ 701,358	$ -	$ 450,000
2017	$ 450,000	$ 746,898	$ -	$ 450,000
2018	$ 450,000	$ 792,438	$ -	$ 450,000
2019	$ -	$ -	$ -	$ 450,000
Total	$ 3,482,000	$ 4,545,186	$ -	$ 3,696,000

Associated Ers (list all applicable):

5010

Mandate Excerpt (if applicable):

n/a

Additional Justifications:

Support of the Enterprise Business Continuity Plan mitigates risk and minimizes the impact on the shareholders, customers, employees, and the community during and following an incident requiring activation of the EBCP. Through the development and maintenance of standardized mission critical plans and comprehensive alternate facilities planning, exercises and testing, the response, recovery and restoration efforts are synchronized, which in turn, lowers the risk of direct, indirect, tangible or intangible losses. Through on-going development, maintenance, review, and testing of the critical alternate operating procedures in support of critical business processes, process and procedure gaps are identified. This process will ensure the readiness of systems, procedures, processes, and people during emergency operations and provide an environment of constant improvement.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☑ YES - attach form	☐ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

The Program is planned to include the following Projects in the next 5 years:

1. Enterprise Business Continuity management software
2. Alternate facilities infrastructure
3. Includes AFM/OMT in Disaster Recovery
4. Includes Mobile Dispatch in Disaster Recovery
5. Includes AMR systems(Fixed network, AutoSOI, MV90, others) in Disaster Recovery
6. Filesystem expansion in Disaster Recovery

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Mobility in the Field

ER No: **ER Name:**
5144 Mobility in the Field

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 740 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	450	-	-	113	-	-	113	-	-	113	-	-	113
2016	320	-	-	80	-	-	80	-	-	80	-	-	80
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
This program is to increase the Company's mobility in the field using mobile devices. A Mobile Road Map Team has documented 30 opportunities where mobile technology could be used in the field. The top opportunities, with the highest benefit and savings, are included over the five-year program. The first phase is the project called "Visibility in the Field", which will assist in Leak Survey and Gas Service Dispatch by providing spatial maps in the field using a mobile device.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Mobility in the Field
Requested Amount	$200,000
Duration/Timeframe	5 Year Program
Dept., Area:	Energy Delivery
Owner:	Heather Rosentrater & Mike Broemeling
Sponsor:	Don Kopczynski & Jim Kensok
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	MH - >= 9% & <12% CIRR
Strategic:	Agile Technology Platforms
Operational:	Operations improved beyond current levels
Business Risk:	ERM Reduction >0 and <= 5
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	83

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
This program is to increase our mobility in the field using mobile devices. A Mobile Road Map Team has documented 30 opportunities where mobile technology could be used in the field. The top opportunities, with the highest benefit and savings, are included over the five year program. Additional mobile opportunities will continue to emerge, therefore a Mobility Program is requested. The Customer IRR (CIRR) at 9% per Dave DeFelice. Opportinites will be done in phases over the 5 years. The first phase will be for the project called Visibility in the Field which enables the following: 1. Leak Survey 2. Gas Service Dispatch This would provide spatial maps in the field, using a mobile device resulting in efficiency gained for our field employees. Our customer will benefit with these new capabilities and effeciencies. The benefits would include operations improvements to reduce compliance risk, reduce duplicate effort, more timely entry of data along with improved tools and information in the field. The top opportunities are 1. View GIS Layers and Multiple Maps in the Field (in 2013) 2. Gas Exposed Pipe Report (in 2014) 3. Capture Facility Data (in 2015) 4. Provide Gas Blue Leak Survey Form (in 2013) 5. Damage Assessment (OMT) (in 2016).	ArcGIS Online will allow us to share information with web maps. This will increase collaboration with internal employees and external contractors and partners. This supports our strategic goals for agile technology .	$ 200,000			2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Unfunded Program:	Maps are printed and taken out to the field; Paper process to gather information in the field and then enter the data into electronic format once in the office; If a Serviceman does have a Go-Book then both the electronic entry is done along with the paper process as a backup; Information is relayed by	n/a	$ -	$ -	$ -	3
Alternative 1: Add ArcGIS Server with tablet mobile devices	Either establish an ELA with Esri or purchasing licenses individually, installation of servers and ArcGIS Server application, establish governance, hire one FTE for AFM Team, deploy approximately 180 mobile devices, user testing, process changes and training. Mobile devices deployed would	$2,000 per device estimate	$ 150,000			2
Alternative 2: Add ArcGIS Server with Mesa devices	Mobile devices deployed as a Mesa.	$4,000 per device estimate				0
Alternative 3 Name : Add ArcGIS Server with Go-Book devices	Mobile devices deployed as a Go-Book.	$10,000 per device estimate				0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012				$ -
2013	$ 200,000			$ 160,000
2014	$ 320,000	$ 126,000	$ (200,000)	$ 530,000
2015	$ 420,000	$ 300,000	$ (392,000)	$ 420,000
2016	$ 320,000	$ 350,000	$ (425,000)	$ 320,000
2017	$ 400,000	$ 400,000	$ (472,000)	$ -
2018	$ -	$ -	$ -	$ -
Total	$ 1,660,000	$ 1,176,000	$ (1,489,000)	$ 1,430,000

Associated Ers (list all applicable):

Current ER

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

The hardware and software technology is advancing in such a manner that it will now benefit our field personnel to have a Mobility in the Field Program. We now have less expensive mobile devices to deploy along with a disconnected application for our field workers to be able to work offline and synch information back and forth when connection is successful to wi-fi or cellular. Advances in technology are making mobile capabilities more of a standard in doing business. Our field workers need to have the tools that make them more efficient in their work processes, able to post data quickly and have more information to ultimately benefit our customers.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☑ Medium Probability ☐ High Probablity Enterprise Tech: ☑ YES - attach form ☐ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the

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AVISTA

Capital Program Business Case

Contract Labor: ☑ YES ☐ NO

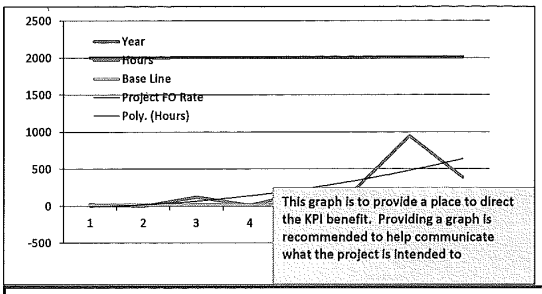
	☑ YES - attach form	
Facilities:	☐ YES - attach form	☐ NO or Not Required
Capital Tools:	☐ YES - attach form	☐ NO or Not Required
Fleet:	☐ YES - attach form	☐ NO or Not Required

resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	To be determined by each project
	Fill in the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 11-05-2014
C:\Users\rf9457\Desktop\Business Cases\Mobility in the Field Business Case Revised

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Technology Refresh to Sustain Business Process

ER No: **ER Name:**
5005 Information Technology Refresh Program

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 48,284 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	18,595	-	-	4,649	-	-	4,649	-	-	4,649	-	-	4,649
2016	16,095	-	-	4,024	-	-	4,024	-	-	4,024	-	-	4,024
2017	16,095	-	-	4,024	-	-	4,024	-	-	4,024	-	-	4,024

Business Case Description:
This program is in place to provide for technology refresh in alignment with the roadmaps for application and technology lifecycles. The continuation of technology refresh programs provides benefit to Avista by providing a stable and reliable application and computing platform to allow for the safe and reliable operation of our electric and gas infrastructure.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Technology Refresh to Sustain Business Proce		
Requested Amount	$ 15,362,243	Assessments:	
Duration/Timeframe	10 Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	IS/IT	Strategic:	Life Cycle Programs
Owner:	Jacob Reidt/Jim Corder	Operational:	Operations require execution to perform at current levels
Sponsor:	Jim Kensok	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is in place to provide for technology refresh in alignment with the roadmaps for application and technology lifecycles. The continuation of technology refresh programs provides benefit to Avista by providing a stable and reliable application and computing platform to allow for the safe and reliable operation of our electric and gas infrastructures.	This program provides for current technologies for the normal operation of the business	$ 15,362,243		$ -	15

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Not doing this program will result in four major impacts: 1) Reduction of 62 staff members with key institutional knowledge 2) Decrease in business process efficiency 3) Increase in O&M labor to support the technology 4) increase technology outages impacting the operations of the business.	The performance of the computing technology at	$ -		$ 1,895,751	20
Technology Refresh Programs	This program is in place to provide for technology refresh in alignment with the roadmaps for application and technology lifecycles. The continuation of technology refresh programs provides benefit to Avista by providing a stable and reliable application and computing platform to allow for the safe and reliable operation of our electric and gas infrastructures.	This program provides for current technologies for the normal	$ 15,362,243	$ -	$ -	15
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
	$ 9,973,758	$ -		$ 9,973,758
2013	$ 10,019,774	$ -	$ -	$ 11,110,491
2014	$ 12,129,043	$ -	$ -	$ 15,362,243
2015	$ 13,949,536	$ -	$ -	$ 16,094,833
2016	$ 17,183,753	$ -	$ -	$ 16,094,833
2017	$ 19,031,035	$ -	$ -	$ 16,094,833
2018	$ -	$ -	$ -	$ 18,094,833
2019	$ -	$ -	$ -	$ 20,094,833
Total	$ 72,313,141	$ -	$ -	$ 102,825,824

Associated Ers (list all applicable):

5005

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Technology refresh program costs increase year over year to two main reasons. The first is because of the continuous technological evolution which causes oblolecence. Manufactures continue to upgrade and improve their systems to provide improved performance and function. This in turn requires companies to replace system on a periodic basis to maintain reliability and functionality. The second main reason is due to the addition of new hardware and software to support new business requirements and growth. New equipment purchased under Technology Expansion Program will have to be refreshed in 3-5 years adding to the refresh budget. For example, infrastructure refresh costs the increase from year to year due to prior years spend in Technology Expansion, roughly $800k in Distributed Systems and $500k in Network Systems per year. Business Application Expansion is up between 2011 & 2012 because of the inclusion of some small to medium projects into the expansion program.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☑ YES - attach form ☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☑ YES - attach form ☐ NO or Not Required
				Capital Tools:	☐ YES - attach form ☑ NO or Not Required
				Fleet:	☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Customer Service System Replacement (Project Compass)

ER No: **ER Name:**
5138 Customer Information System (CIS) Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 15,414 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	96,408	-	85,988	3,486	3,885	2,199	850	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
The Customer Information System (CIS) will be implemented in two waves. The first wave includes the Maximo application in the Company's areas of Generation, Production, and Substation Support. This wave has an estimated go-live date or transfer to plant date of September 2013. The second wave, includes Maximo application in the Company's areas of Transmission, Distribution, and Gas Operations, as well as the Customer Care and Billing application. This large technology project is described in detail in the testimony of Mr. Kensok.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Enterprise Security

ER No: **ER Name:**
5014 Security Systems

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 9,600 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	3,800	-	-	950	-	-	950	-	-	950	-	-	950
2016	3,200	-	-	800	-	-	800	-	-	800	-	-	800
2017	3,200	-	-	800	-	-	800	-	-	800	-	-	800

Business Case Description:
This program is to maintain and improve all security aspects to protect people, assets, information & operations through projects, activities and polices. It will also manage the number of security incidents at level that aligns with our corporate risk expectations. Additionally it will increase the culture of security through education and training.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Enterprise Security**		
Requested Amount	**$1,836,932**	**Assessments:**	
Duration/Timeframe	10 Year Program	Financial:	12%
Dept.., Area:	Enterprise Technology	Strategic:	Agile Technology Platforms
Owner:	Clay Storey/Jim Corder	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Jim Kensok	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	92

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is to maintain and improve all security aspects to protect people, assets, information & operations through projects, activities and polices. It will also manage the number of security incidents at level that aligns with our corporate risk expectations. Additionally it will increase the culture of security through education and training.		$ 1,836,932	$ -	$ -	9

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Address issues related to violations of the security and compliance as they arise and pay fines as there are assessed.	The risk of security incidents increases		$ -	$ 5,000,000	15
Alternative 1: Brief name of alternative (if applicable)	This program is to maintain and improve all security aspects to protect people, assets, information & operations through projects, activities and polices. It will also manage the number of security incidents at level that aligns with our corporate risk expectations. Additionally it will increase the culture of security through education and training.	Decreases the likelihood or severity of security incidents	$ 1,836,932	$ -	$ -	9
Alternative 2: Brief name of alternative (if applicable)			$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)			$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 1,885,000	$ -	$ -	$ 1,885,000
2013	$ 1,885,000	$ -	$ -	$ 1,510,000
2014	$ 1,885,000	$ -	$ -	$ 1,935,000
2015	$ 1,885,000	$ -	$ -	$ 3,200,000
2016	$ 1,885,000	$ -	$ -	$ 3,200,000
2017	$ 1,885,000	$ -	$ -	$ 3,200,000
2018	$ -			$ 3,200,000
2019	$ -	$ -	$ -	$ 3,200,000
Total	$ 9,425,000	$ -	$ -	$ 19,445,000

Associated Ers (list all applicable):			
From 5014			

ER	2013	2014	2015	2016	2017	Total
						$ -
						$ -
						$ -
5014	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 9,425,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 1,885,000	$ 9,425,000

Mandate Excerpt (if applicable):

The program is not mandatory however project under the scope of this business case may be mandatory base on their specific requirements.

Additional Justifications:

2012 Budget Note: This program is being fund by a reduction in the Technology Refresh and Technology Expansion business cases, for $565k and $820k respectively. And $500,000 from Security Initiative Business Case (ER5002).

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☑ YES - attach form	☐ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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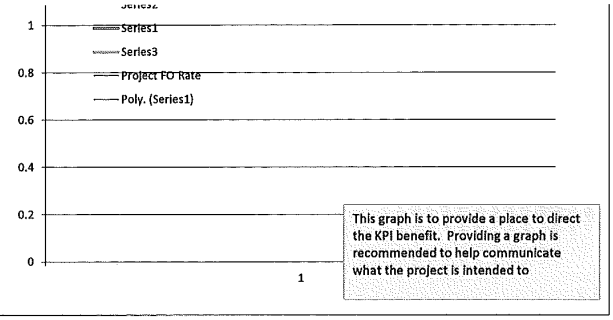
http://sharepoint/departments/budget/Business Cases/Enterprise Technology/Enterprise Security

AVISTA



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

2013 Projects

- Certificate Management
- CVA expansion to SCADA and GCN
- Data loss prevention software and Data classification standards
- Email Encryption
- File Integrity Monitoring
- Network Access Control Phase 1
- Network Device Config Analysis Automation
- Network IPS Expansion
- Security monitoring expansion to GCC and SCADA (QRadar)
- Two factor authentication

2014 Projects

- SIEM & Qflow Refresh
- Controlled Access based on need to know
- SSPWR Internet Access
- Itron Security Appliances (SGDP) Refresh
- Asset management - Authorized & Unauthorized SW
- Identity Management Solution
- Controlled Use of Admin Privileges
- Password Vault

2015 Projects

- PKI Refresh
- CVA Hardware Refresh
- Web Services Security (O&M)
- Disk Encryption Refresh
- Network Device Config Analysis Refresh
- McAfee NSM & NIPS Refresh
- Malware Detection Appliance Refresh (FireEye)
- Limitation and Control of Network Ports, Protocols, and Services
- Configuration management tool
- Boundary Defense
- Application SW-Secure config
- Account Monitoring and Control
- HR Systems Integration w/Active Directory

2016 Projects

- Asset mgt/Auth & Unauth Devices Refresh
- Password Vault Refresh
- Network Access Control Refresh
- Identity Management Refresh
- Enterprise Reduced Sign-On
- Controlled Access based on need to know-Refresh

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Technology Expansion to Enable Business Process

ER No: **ER Name:**
5006 Information Technology Expansion Program

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 17,134 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	6,069	13	13	1,479	13	13	1,479	13	13	1,479	13	13	1,529
2016	5,552	12	12	1,363	12	12	1,363	12	12	1,363	12	12	1,363
2017	5,799	13	13	1,424	13	13	1,424	13	13	1,424	13	13	1,424

Business Case Description:
This program facilities the technology growth throughout the Company. This includes technology expansion for the entire workforce, business process automation and increases in technology to support efficient business processes.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Technology Expansion to Enable Business Prc		
Requested Amount	$ 4,635,572	**Assessments:**	
Duration/Timeframe	10 Year Program	Financial:	7.00%
Dept.., Area:	Enterprise Techonogy	Strategic:	Agile Technology Platforms
Owner:	Jacob Reidt/Jim Corder	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Jim Kensok	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	81

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program facilities the technology growth throughout the company. This includes technology expansion for the entire workforce, business process automation and increases in technology to support efficient business processes.		$ 4,635,572	$ -	$ -	5

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Without funding this program will not be able to deliver technology assets and application enhancement to provide for growth of the technology base or improvements to in-house developed applications. A consequence of not funding this program will be the loss of 20+ application FTE's who posess business knowledge that is not quickly or easily replaced.	n/a	$ -	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	This program facilities the technology growth throughout the company. This includes technology expansion for the entire workforce, business process automation and increases in technology to support efficient business processes.		$ 4,635,572	$ -	$ -	5
Alternative 2: Brief name of alternative (if applicable)			$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)			$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 7,792,700	$ -	$ -	$ 7,792,700
2013	$ 7,675,945	$ -	$ -	$ 5,648,113
2014	$ 7,835,572	$ -	$ -	$ 4,635,572
2015	$ 8,083,991	$ -	$ -	$ 5,799,088
2016	$ 7,559,940	$ -	$ -	$ 5,535,539
2017	$ 8,330,445	$ -	$ -	$ 5,799,088
2018	$ -	$ -	$ -	$ 5,799,088
2019	$ -	$ -	$ -	$ 7,496,234
Total	$ 39,485,893	$ -	$ -	$ 40,712,722

Associated Ers (list all applicable):			
5006			

amounts same as 2012 less 820k moved to new Enterprise Security

business case

ER	2013	2014	2015	2016	2017	Total
5006	$ 7,675,945	$ 7,835,572	$ 8,083,991	$ 7,559,940	$ 8,330,445	$ 39,485,893
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 7,675,945	$ 7,835,572	$ 8,083,991	$ 7,559,940	$ 8,330,445	$ 39,485,893

Mandate Excerpt (if applicable):

na

Additional Justifications:

Technology Expansion is being reduced in 2012 because the security specific items are being moved to an Enterprise Security business case. The CIRR for this business case is an approximation because the items in this business case are so interconnected with other department's initiatives it is very difficult to calculate.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☑ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☐ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

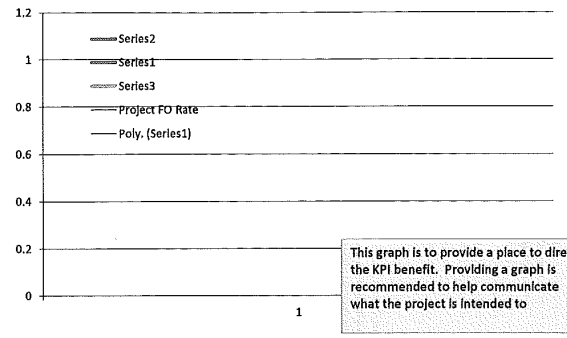
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

Capital Program Business Case

AVISTA



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

Please see attachment for descriptions of the work completed under this program.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 11-05-2014
C:\Users\ff9457\Desktop\Business Cases\Technology Expansion to Enable Business Process Program Business Case

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: AFM COTS

ER No: **ER Name:**
5147 AFM COTS Migration

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 15,602 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	15,608	-	-	-	-	-	-	-	-	-	-	-	15,608

Business Case Description:

The project replaces the Company's obsolete, custom Facilities Management system (Project Atlas) with a commercial, off-the-shelf application. The project includes replacement of the natural gas and electric Construction Design Tool, Edit Tool, and the Company's proprietary Outage Management Tool. These applications aid in the engineering and design of Avista's electric and gas infrastructure, which costs would increase without the aid of this technology. In addition to supporting design, the Outage Management allows the Company to quickly isolate the likely cause of system outages, to communicate proactively with customers, and to quickly and accurately dispatch Avista crews for service restoration. Also included in the project scope are field mobility applications including a version upgrade to the Ventyx/ABB mobile workforce management system and the addition of mobile tools. These applications will work with the Construction Design, Edit and Outage Management applications to deliver work electronically to field personnel and return completion results electronically to the initiating systems improving the timeliness and accuracy of the work results.

Offsets:
The attached business case shows O&M Offsets exist. After further discussion it was determined that these savings will be distributed to other expenses and the initial savings will be negated. Therefore, these additional savings have not been included.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

AVISTA

Investment Name:	AFM COTS Migration
Requested Amount	$41,000,000
Duration/Timeframe	4 Year Project
Dept.., Area:	Enterprise Technology
Owner:	Laura Vickers and John Gibson
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	8.00%
Strategic:	Agile Technology Platforms
Business Risk:	Business Risk Reduction >5 and <= 10
Project Risk:	Moderate certainty around cost, schedule and resources
Assessment Score:	76

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The project is to migrate AFM to a COTS application which aligns to our AFM Roadmap and strategic goals for Agile Technology Platforms. The project will include the replacement of Gas and Electric CDT, EDIT, and OMT/ADMS applications. The selection of the COTS solution will occur after business requirements are gathered and an RFI/RFP process is completed. The O&M estimates are related to the RFI/RFP process, licensing maintenance fees and when parts of the system go live during the course of the project.	describe any incremental changes that this Project would benefit present operations	$ 41,000,000	$ 3,500,000	$ -	12

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Describe the current condition of the asset(s) and problems that need to be corrected	n/a	$ -	$ -	$ -	16
Alternative 1: AFM COTS Migration TBD	Describe other options that were considered	describe any incremental changes in operations			$ -	12
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -		$ -	$ -
2014	$ 3,000,000	$ 500,000	$ -	$ 25,000
2015	$ 10,000,000	$ 1,000,000	$ -	$ 4,602,256
2016	$ 13,000,000	$ 1,000,000	$ -	$ 5,000,000
2017	$ 15,000,000	$ 1,000,000	$ -	$ 6,000,000
2018				$ 10,000,000
Total	$ 41,000,000	$ 3,500,000	$ -	$ 25,627,256

Associated Ers (list all applicable):			

ER	2013	2014	2015	2016	2017	Total
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

July-14 - June 15	Plan
July 15 - June 16	Design & Construct
July 16 - June 17	Deploy
June 17 - December 17	Train

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity

Contract Labor: ☑ YES ☐ NO

Enterprise Tech: ☐ YES - attach form ☐ NO or Not Required

Facilities: ☐ YES - attach form ☐ NO or Not Required

Capital Tools: ☐ YES - attach form ☐ NO or Not Required

Fleet: ☐ YES - attach form ☐ NO or Not Required

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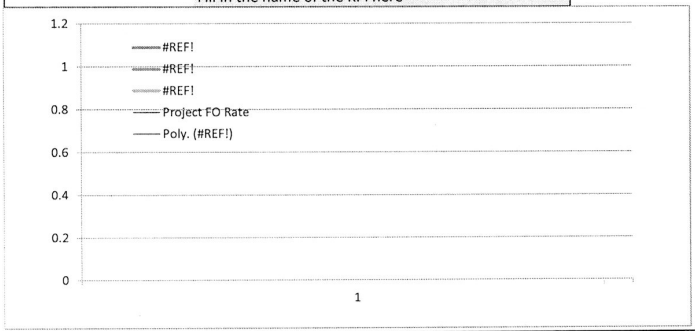
Capital Project Business Case

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 5/15/2015
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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: High Voltage Protection for Substations

ER No: **ER Name:**
5142 High Voltage Protection Upgrade

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 834 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	719	-	-	-	-	-	-	-	-	-	-	719	-
2016	415	-	-	-	-	-	-	-	-	415	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:

High Voltage Protection to personnel and telecommunication equipment by fiber integration, demark relocation, & equipment remediation at suburban and rural substations.

Offsets:
The attached business case shows O&M Offsets exist. After further discussion it was determined that these savings will be distributed to other expenses and the initial savings will be negated. Therefore, these additional savings have not been included.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	High Voltage Protection for Substations_Revise	Assessments:	
Requested Amount	$4,371,844	Financial:	Medium - >= 5% & <9% CIRR
Duration/Timeframe	6 Year Project	Strategic:	Reliability & Capacity
Dept.., Area:	Enterprise Technology	Operational:	Operations require execution to perform at current levels
Owner:	Jacob Reidt/Jim Corder	Business Risk:	ERM Reduction >5 and <= 10
Sponsor:	Jim Kensok	Project/Program Risk:	High certainty around cost, schedule and resources
Category:	Mandatory		
Mandate/Reg. Reference:	Yes	Assessment Score:	128

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
High Voltage Protection to personnel and Telco equipment by fiber integration, demark relocation, & equipment remediation at suburban and rural substations.	describe any incremental changes that this project would benefit present operations	$ 3,820,309	$ (374,500)	$ -	3

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Status Quo :	Not repairing this situation has potential to increase the risk to Avista and/or telephone company personnel working near substations and the risk of damage to communications equipment caused by electrical faults.	n/a	$ -	$ -	$ 1,000,000	15
Alternative 1: Brief name of alternative (if applicable)	High Voltage Protection to personnel and equipment by fiber integration, demark relocation, & equipment remediation at suburban and rural substations.	16 substations integrated onto fiber network, reducing	$ 3,820,309	$ (48,600)	$ -	3
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline

Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 1,243,989	$ -	$ -	$ 1,243,989
2012	$ 1,041,320	$ (18,000)	$ -	$ 997,355
2013	$ 525,000	$ (37,300)	$ 12,000	$ 696,500
2014	$ 530,000	$ (53,200)	$ 12,000	$ 565,000
2015	$ 320,000	$ (53,200)	$ 12,000	$ 419,028
2016	$ 160,000	$ (53,200)	$ 12,000	$ 415,442
2017	$ -	$ (53,200)	$ 12,000	$ -
2018	$ -	$ (53,200)	$ 12,000	$ -
Future	$ -	$ (53,200)	$ 12,000	$ -
Total	$ 3,820,309	$ (374,500)	$ 84,000	$ 4,337,314

Rebaselined after completion of Design & Planning

Milestones (high level targets)

October-11	Major Procurement	January-13	First fiber project close	December-14	RLH Construction
December-11	Previous Spend 2011	February-13	First remediation project close	December-15	RLH Construction
October-12	Major Procurement	March-13	Second remediation project close	December-16	RLH Construction
December-12	Previous Spend 2012	April-13	Future GridNet Sites engineering		
		July-13	HVP Shop labor finishes		
		December-13	Finalize GridNet Installation		

Associated Ers (list all applicable): 5119

Mandate Excerpt (if applicable): Under CenturyLink (FKA Qwest) tarrif Number 1 section 13.7 requires that the customer provide high voltage protection for communication circuits in high voltage areas. Please notes below for additional information

Additional Justifications:

In order to balance the need for communications from devices at substation locations with safety of personnel and equipment, high voltage protection & isolation standards have arisen. Telco companies have the ability or desire to turn off communication circuits to substations until Avista works with them to electrically isolate the copper coming into the substation. This effects Phone, Modem, SCADA, and / or Metering & Monitoring systems at the substations. This set of projects was created to mitigate this tariff risk as well as the lower likelihood (but more expensive) risks to personnel and equipment.

Resources Requirements: *(request forms and approvals attached)*

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Capital Investment Business Case

AVISTA

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☑ High Probability	Enterprise Tech:	☑ YES - attach form	☐ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

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Please see the follow link for CenturyLink (FKA Qwest) Tariff No. 1 that outlines the requirements for High Voltage Protection Circuits.
http%3A%2F%2Ftariffs.qwest.com%3A8000%2Fidc%2Fgroups%2Fpublic%2Fdocuments%2Ftariff%2Ffcc1_s013p021.pdf

This project was started in 2011 under ER5005 and is being moved out of ER5005 into its own Business Case.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Next Generation Radio Refresh

ER No: **ER Name:**
5106 Next Generation Radio System

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 458 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	4,200	-	-	-	2,742	-	-	-	1,458	-	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:

This project is refreshing Avista's 20 year old Land Mobile Radio ("LMR") system that is used for critical crew communications during outage restoration and daily operations of maintaining the electric and gas distribution and transmission systems. Avista continues to maintain a private LMR system because the offerings available from public providers cannot provide communication throughout our rural service territory and as a portion of our nation's critical infrastructure it is imperative that Avista have a communication system that will operate in the event of a disaster to help safeguard the general public.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Next Generation Radio Refresh		
Requested Amount	$ 21,907,957	Assessments:	
Duration/Timeframe	5 Year Project	Financial:	Medium - >= 5% & <9% CIRR
Dept., Area:	Enterprise Technology	Strategic:	Agile Technology Platforms
Owner:	Jacob Reidt/Jim Corder	Operational:	Operations require execution to perform at current levels
Sponsor:	Jim Kensok	Business Risk:	ERM Reduction >5 and <= 10
Category:	Mandatory	Project/Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	FCC Narrow Banding Mandate (See below)	Assessment Score:	128

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
This project is refreshing Avista's 20 year old Land Mobile Radio (LMR) system that is used for critical crew communications during outage restoration and daily operations of maintaining the electric and gas distribution and transmission systems. Avista continues to maintain a private Land Mobile Radio system because the offerings available from public providers cannot provide communication throughout our rural service territory and as a portion of our nation's critical infrastructure it is imperative that Avista have a communication system that will operate in the event of a disaster to help safeguard the general public.	The current radio system will not meet the required mandate and due for refresh.	$ -	$ -	$ -	0

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Status Quo :	Describe the current condition of the asset(s) and problems that need to be corrected	n/a	$ -	$ -	$ -	0
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline — **Construction Cash Flows (CWIP)**

		Capital Cost	O&M Cost	Other Costs	Approved
Actual	Previous	$ 11,327,464	$ -	$ -	$ 11,327,464
Forecast	2012	$ 8,003,573	$ -	$ -	$ 4,262,000
	2013	$ 2,997,260	$ -	$ -	$ 2,585,260
	2014	$ 3,946,378	$ -	$ -	$ 3,275,207
	2015	$ 27,000	$ -	$ -	$ 458,026
	2016	$ -	$ -	$ -	$ -
	2017	$ -	$ -	$ -	$ -
	2018	$ -	$ -	$ -	$ -
	Future	$ -	$ -	$ -	$ -
	Total	$ 26,301,675	$ -	$ -	$ 21,907,957

Rebaselined after completion of Design & Planning

Milestones (high level targets)

February-08	Project Started	December-15	year end actual
December-11	year end actual		
December-12	year end actual		
December-13	year end actual		
December-14	year end actual		

Associated Ers (list all applicable):	5106							

Mandate Excerpt (if applicable): na

Additional Justifications:

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Capital Investment Business Case

AVISTA

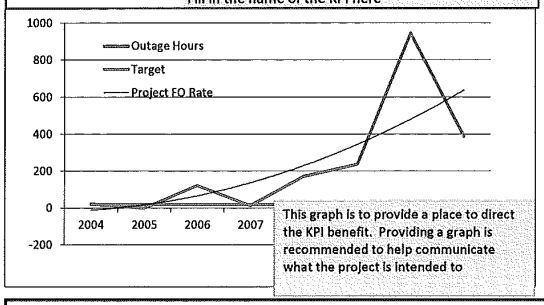
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☐ NO or Not Required
Contract Labor:	☐ YES	☐ NO		Facilities:	☐ YES - attach form	☐ NO or Not Required
				Capital Tools:	☐ YES - attach form	☐ NO or Not Required
				Fleet:	☐ YES - attach form	☐ NO or Not Required

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

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To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Enterprise Technology

Business Case Name: Microwave Refresh

ER No: **ER Name:**
5121 Microwave Replacement with Fiber

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 8,377 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,363	-	-	591	-	-	591	-	-	591	-	-	591
2016	3,050	-	-	763	-	-	763	-	-	763	-	-	763
2017	3,050	-	-	763	-	-	763	-	-	763	-	-	763

Business Case Description:
The purpose of this project is to refresh the aging microwave technology with current technology to provide for high-speed data communications. These communication systems support relay and protection schemes of the electrical transmission system.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

AVISTA

Investment Name:	Microwave Refresh		
Requested Amount	$ 23,204,063	Assessments:	
Duration/Timeframe	7 Year Project	Financial:	10.50%
Dept.., Area:	Enterprise Technology	Strategic:	Reliability & capacity
Owner:	Jacob Reidt/Jim Corder	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Jim Kensok	Project Risk:	Moderate certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The purpose of this project is to refresh the aging microwave technology with current technology to provide for the high speed data communications. These communication systems support relay and protection schemes of the electrical transmission system.	The current system are out of date and in need of replacement	$ 8,400,000	$ 840,000	$ -	8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Remaining at the status quo will increase Avista's risk of failure of these critical communication systems, which could have significant impact on Avista's transmission capacity and ability to serve our customers electrical needs.	n/a	$ -	$ -	$ 1,000,000	15
Alternative 1: Brief name of alternative (if applicable)	The purpose of this project is to refresh the aging microwave technology with current technology to provide for the high speed data communications. These communication systems support relay and protection schemes of the electrical transmission system.	The current system are out of date and in need of	$ 8,400,000	$ 840,000	$ -	8
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 2,910,116	$ -	$ -	$ 2,910,116
2012	$ 1,559,877	$ -	$ -	$ 1,200,000
2013	$ 1,500,000	$ -	$ -	$ 1,500,000
2014	$ 1,657,391	$ -	$ -	$ 917,462
2015	$ 2,276,679	$ -	$ -	$ 2,276,679
2016	$ 4,050,000	$ -	$ -	$ 3,050,000
2017	$ 4,100,000	$ -	$ -	$ 3,050,000
2018	$ 4,100,000	$ -	$ -	$ 4,100,000
2019	$ -	$ -	$ -	$ 5,100,000
2020+	$ 1,050,000	$ -	$ -	$ -
Total	$ 23,204,063	$ -	$ -	$ 24,104,257

Associated Ers (list all applicable):			
5119			

ER	2015	2016	2017	2018	2019	Total
5119	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

December-11	NLW-SHN Prior	December-12	M15-NLW 2012	December-15	MW to Fiber
December-12	NLW-SHN 2012	December-13	M15-NLW 2013	December-16	MW to Fiber
December-13	NLW-SHN 2013	December-12	Fiber to Lew Off 2012	December-17	MW to Fiber
December-11	M23-SPU Prior	December-13	Fiber to Lew Off 2013	December-18	MW to Fiber
December-12	M23-SPU 2012	December-14	Missing row in Actual Progress and	December-19	MW to Fiber
December-13	M23-SPU 2013	December-14	MW to Fiber	December-20	MW to Fiber

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Capital Project Business Case

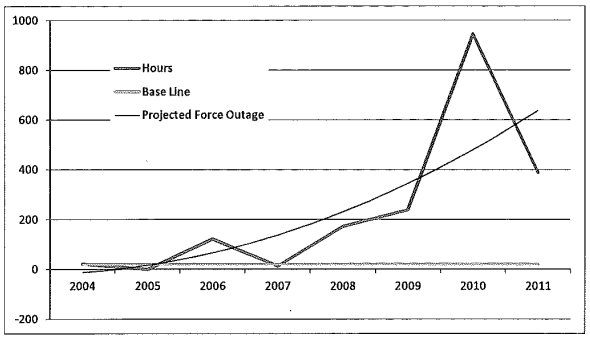
Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☐ NO or Not Required	Capital Tools:	☐ YES - attach form	☐ NO or Not Required
Contract Labor:	☐ YES	☐ NO		Facilities:	☐ YES - attach form	☐ NO or Not Required	Fleet:	☐ YES - attach form	☐ NO or Not Required

Capital Project Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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(if necessary) Director/Manager

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To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Colstrip Transmission Capital Additions

ER No: **ER Name:**
2214 Colstrip Transmission-PNACI Capital Additions

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,504 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	491	41	41	41	41	41	41	41	41	41	41	41	41
2016	497	41	41	41	41	41	41	41	41	41	41	41	41
2017	516	43	43	43	43	43	43	43	43	43	43	43	43

Business Case Description:
This program is for capital replacement and upgrades and for O&M expenses for the jointly owned 500 kV Colstrip Transmission System. Program funding is used as transmission assets reach the end of their useful lives, requiring replacement or increased capacity. The program can also be used to accommodate necessary upgrades due to new interconnection requests on these facilities. Under the Colstrip Project Transmission Agreement (among Avista, Northwestern Energy, PacifiCorp, Portland General Electric and Puget Sound Energy), Avista is obligated to fund capital and O&M expenses commensurate with Avista's ownership share in these facilities. Such facilities include hardware, software, and operating system upgrades, as well as deployment of capabilities to meet new operating standards and requirements. Some system upgrades may be initiated by other requirements, including NERC reliability standards, growth, and third-party projects (e.g. transmission or generation interconnections under FERC regulations). Examples of upgrades to be completed under this program in the next 2 years are: 500 kV breaker replacement at Colstrip Substation, 500 kV communication replacement (OPGW Project) between Broadview and Colstrip to meet required dual communication paths under NERC standards, 500 kV relay upgrades at Broadview and 500 kV tower erosion mitigation.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**Colstrip Transmission**
Requested Amount	**$491,434**
Duration/Timeframe	20 Year Program
Dept.., Area:	Transmission
Owner:	Jeff Schlect/Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	Program

Assessments:	
Financial:	7.00%
Strategic:	Reliability & capacity
Business Risk:	Business Risk Reduction >10 and <= 15
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	97

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
For capital upgrades and replacement and for O&M expenses for the jointly owned 500 kV Colstrip Transmission System. Program funding is used as transmission assets reach end-of-life, requiring replacment or upgrade. Under the Colstrip Project Transmission Agreement (among Avista, NorthWestern Energy, PacifiCorp, Portland General Electric and Puget Sound Energy), Avista is obligated to fund capital and O&M expenses commensurate with Avista's ownership share in these facilities. Such facilities include hardware, software, and operating system upgrades to meet new operating standards and requirements. Some upgrades may be initiated by NERC reliability standards, growth, and third-	Improved performance, upgraded equipment, better status & control, new life cycle.	$ 491,434	$ 329,778	$ -	4

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Non-compliant operational capabilities and practices would result in negative audit findings, financial penalties, and litigation expenses due to breach of contract with other joint owners. Obsolete equipment would remain in service until failure.	Severe negative system reliability and compliance impacts	$ -	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 368,887	$ 392,583	$ -	$ 218,887
2015	$ 491,434	$ 329,778	$ -	$ 491,434
2016	$ 496,535	$ 302,751	$ -	$ 496,535
2017	$ 515,928	$ 295,977	$ -	$ 515,928

Associated Ers (list all applicable):			
2214			

Capital Program Business Case

2018	$ 591,507	$ 296,871	$ -	$ 591,507
2019	$ 421,521	$ 292,209	$ -	$ 421,521
2020+	$ -	$ -	$ -	$ -
Total	$ 2,885,812	$ 1,910,168	$ -	$ 2,885,812

ER	2015	2016	2017	2018	2019	Total
2214	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

NERC reliability standards are being continually developed and revised. New and revised standards are expected to address emergency operations, transmission operations, critical infrastructure protection, communications, and balancing authority operations.
(See

Additional Justifications:

This program is for capital replacement and upgrades and for operations and maintenance expenses for the jointly owned 500 kV Colstrip Transmission System. Cuts to this program need to be closely evaluated to assure that reliable and compliant operations are not impacted and that Avista would not be in breach of contract with other joint transmission owners.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO

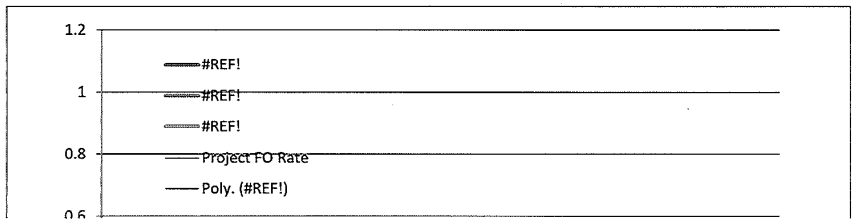
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm commitment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Director/Manager

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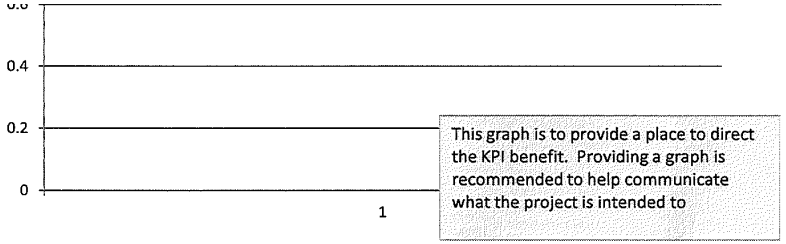
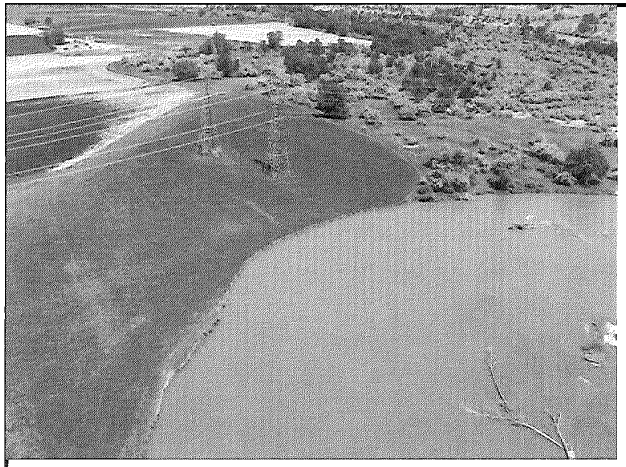
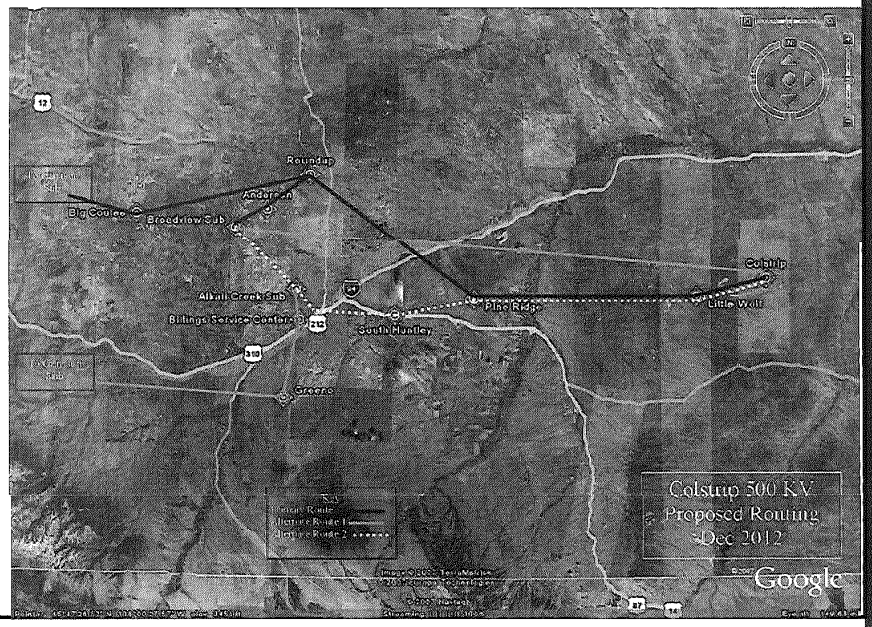
AVISTA



Other Party Review signature Margie Stevens
(if necessary) Director/Manager





Capital Program Business Case

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Distribution Grid Modernization

ER No:	**ER Name:**
2470	Dist Grid Modernization
2570	Sandpoint Grid Modernization Project

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 35,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	11,000	557	467	529	585	665	743	823	733	740	710	617	3,832
2016	11,000	539	469	513	576	692	678	705	725	730	744	583	4,044
2017	13,000	558	482	523	585	699	684	720	729	735	750	593	5,943

Business Case Description:
The Distribution Grid Modernization Program provides value to customers and shareholders by improving grid reliability, energy savings and operational ability through a systematic and managed upgrade of our aging distribution system. This program seeks cost effective opportunities to increase service quality performance and system availability through the identification of locations that would benefit from the addition of switched capacitor banks, regulators and smart grid devices. The long-term plan represented by the IRR of 6.4% aims to upgrade 6 feeders per year to cover the whole distribution system in a 60 year cycle. This coordinates well with Wood Pole Management's 20 year cycle such that every third planned maintenance trip to a feeder would be an upgrade, expanding Wood Pole Management's scope. The average cost to rebuild each feeder is estimated to be $3.5M.

Offsets:
O&M offsets associated with this business case may occur in the future, however, they are not quantifiable at this time.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Distribution Grid Modernization**		
Requested Amount	**See Plan Below**	**Assessments:**	
Duration/Timeframe	Indefinite Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Electrical Engineering	Strategic:	Life-cycle asset management
Owner:	Troy A. Dehnel	Business Risk:	Business Risk Reduction >15
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	133

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
The Distribution Grid Modernization Program provides value to customers and shareholders by improving Grid Reliability, Energy Savings and Operational Ability through a systematic and managed upgrade of our aging distribution system. This program seeks cost effective opportunities to increase service quality performance and system availability through the identification of locations that would benefit from the addition of switched capacitor banks, regulators and smart grid devices. The long-term plan represented by the IRR of 6.4% aims to upgrade 6 feeders per year to cover the whole distribution system in a 60 year cycle. This coordinates well with Wood Pole Management's 20 year cycle. The average cost to rebuild each feeder is estimated to be $3.5M.	When completed save an average of 1,970 MWh* annually & Reduce Outages	$ 21,000,000	$ -	$ 198,000	4

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	No systematic plan for wholistic address of conductors, reconfiguring services for better access, or adding devices that benefit the performance of the feeder.	n/a	$ 120,000	$ -	$ 1,980,000	25
Alternative 1: Brief name of alternative (if applicable)	The Dist Grid Modernization Program provides benefits to customers, employees, and shareholders by replacing problematic poles, cross-arms, cut-outs, transformers, conductor, etc. In addition, adding switched capacitor banks and smart grid devices is of benefit due to increased energy efficiency	When completed save an average of 1,970 MWh* annually & Reduce Outages	$ 21,000,000	$ -	$ 198,000	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 7,308,357	$ -	$ -	$ 7,308,357
2014	$ 8,686,019	$ -	$ -	$ 9,586,000
2015	$ 11,000,000	$ -	$ -	$ 11,000,000
2016	$ 11,000,000	$ -	$ -	$ 11,000,000
2017	$ 13,000,000	$ -	$ -	$ 13,000,000
2018	$ 15,000,000	$ -	$ -	$ 15,000,000
2019	$ 15,000,000	$ -	$ -	$ 15,000,000

Associated Ers (list all applicable):			
Dist Grid Moderniz	2470		

Capital Program Business Case

AVISTA

2020+	$ 21,000,000	$ -	$ -	$ -
Total	$ 101,994,376	$ -	$ -	$ 81,894,357

ER	2015	2016	2017	2018	2019	Total
Dist Grid Modernization	$ -	$ -	$ -	$ -	$ -	$ -
2470	$ 11,000,000	$ 11,000,000	$ 13,000,000	$ 15,000,000	$ 15,000,000	$ 65,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 11,000,000	$ 11,000,000	$ 13,000,000	$ 15,000,000	$ 15,000,000	$ 65,000,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO

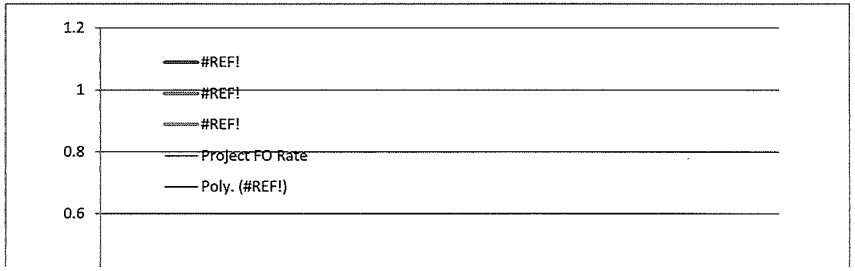
Enterprise Tech: ☐ YES - attach form ☐ NO or Not Required
Facilities: ☐ YES - attach form ☐ NO or Not Required
Capital Tools: ☐ YES - attach form ☐ NO or Not Required
Fleet: ☑ YES - attach form ☐ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	EVM, CPI, SPI
	Fill in the name of the KPI here



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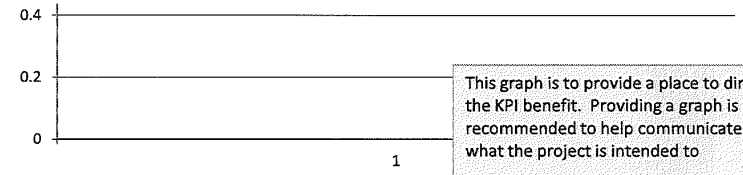
Director/Manager

Other Party Review signature Margie Stevens

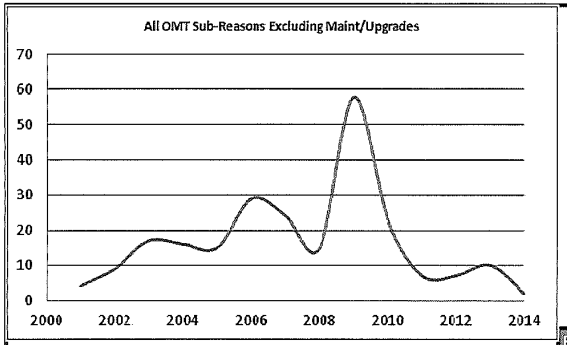
AVISTA

Capital Program Business Case



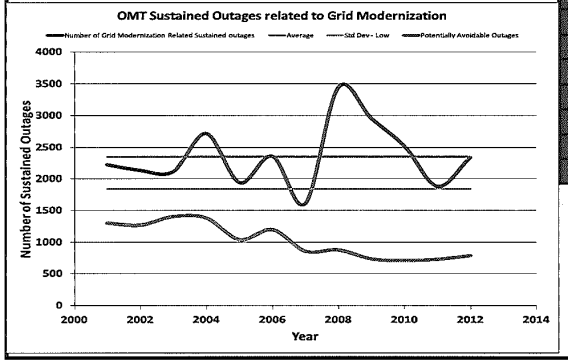
This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

(if necessary) Director/Manager



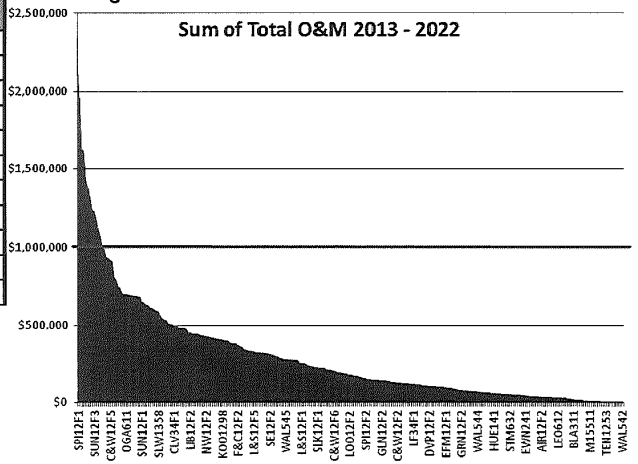
Actual Energy Savings

Feeder	Area	Year Complete	Annual Energy Savings (MWh)
9CE12F4	Spokane, WA (9th	2009	601
BEA12F1	Spokane, WA	2012	972
F&C12F2	Spokane, WA	2012	570
BEA12F5	Spokane, WA	2014	885
WIL12F2	Wilbur, WA	2015	1,403
CDA121	Coeur d'Alene, ID	2014	438
		Total	**4,869**



Estimated Outage Costs by Feeder Projected out 10 Years	
Feeder	2022
SPI12F1	$2,185,995
NE12F4	$2,074,839
NE12F2	$1,440,185
SE12F4	$1,414,351
FWT12F2	$1,370,184
COB12F1	$1,328,172
CDA122	$1,230,638
SUN12F3	$1,220,204
C&W12F5	$1,088,570
PUL116	$1,043,097
CLV34F1	$1,011,177

O&M Outage Reduction



To be completed by Capital Planning Group

Capital Program Business Case

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Distribution Line Protection

ER No: **ER Name:**
2276 Distribution Line Protection

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 375 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	125	1	1	4	4	18	18	18	20	20	20	3	-
2016	125	1	1	4	4	18	18	18	20	20	20	3	-
2017	125	1	1	4	4	18	18	18	20	20	20	3	-

Business Case Description:
Avista's Electric Distribution system is configured into a trunk and lateral system. Lateral circuits are protected via fuse-links and operate under fault conditions to isolate the lateral in order to minimize the number of affected customers in an outage. Engineering recommends treatment of the removal and replacement of Chance Cutouts, the removal and replacement of Durabute cutouts and the installation of cut-outs on un-fused lateral circuits. This is a targeted program to ensure adequate protection of lateral circuits and to replace known defective equipment.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Distribution Line Protection		
Requested Amount	875,000 5-years	Assessments:	
Duration/Timeframe	On-going Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Engineering	Strategic:	Life Cycle Programs
Owner:	Dave James	Operational:	Operations require execution to perform at current levels
Sponsor:	Kopczynski/Fisher	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	93

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Avista's Electric Distribution system is configured into a trunk and lateral system. Lateral circuits are protected via fuse-links and operate under fault conditions to isolate the lateral minimize the number of affected customers. Engineering recommends treatment of the following: 1. Removal and replacement of Chance Cutouts 2. Removal and replacement of Durabute cutouts 3. Installation of cut-outs on unfused lateral circuits. This is a targeted program to ensure adequate protection of lateral circuits and to replace known defective equipment.	Investments necessary to maintain current operations and to extend the life of current assets.	$ 250,000	$ 10,000		8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Unfunded Program:		n/a	$ -	$ -	$ -	15
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	8
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2013	$ 250,000	$ 5,000	$ -	$ 250,000
2014	$ 250,000	$ 10,000	$ -	$ 250,000
2015	$ 125,000	$ 10,000	$ -	$ 125,000
2016	$ 125,000	$ 10,000	$ -	$ 125,000
2017	$ 125,000	$ 5,000	$ -	$ 125,000
2018	$ -	$ -	$ -	$ 125,000
2019	$ -	$ -	$ -	$ 125,000
Total	$ 875,000	$ 40,000	$ -	$ 1,125,000

Associated Ers (list all applicable):

Current ER	
2416	System Wide

Mandate Excerpt (if applicable):

Additional Justifications:

This program was funded for a 2-year period in the 2009-2010 timeframe. This request allows for completion of the Chance cutout replacements but also includes the installation of devices on unfused laterals.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

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Capital Program Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	# Cutout Replacement
	# New Cutout Installation

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Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

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Spokane, N & W

Davenport 12F2 Convert FDR to UG
Roxboro 751 - Reinf 2.5 mi
S Othello 521 - Recond
Long Lake - Cnv OH to UG (USFWS)
3HT 12F2- Waste Water
Monroe St Secondary Cld Recond
Millwood 12F4- Recond 0.5 mi
Colbert 12F1 - Recond 4/0 ACSR
NE 12F2 - Tie to NE 12F4
SE 12F2 - Tower MT
Liberty Lk 12F2 - Henry Rd Tie
NE 12F1 Recond & Split FDR
9CE 12F4 - Recond 366
Fort Wright 12F1- Recond 1 mi
Deer Park 12F2 - Recond 2/0 ACSR
NE 12F2 - Tie to WAK 12F3
Barker 12F2 - Tie to EFM 12F1
East Farms 12F1 - Recond 1.5 Mi
Fort Wright 12F4 - Recond 900'
9CE 12F1 - Tie to BEA 12F6
9CE 12F2 - Tie to Chester 12F2
Silver Lk 12F1 - Recond 2.1 mi
Third & Hatch 12F1 - Tie to 12F7
C&W 12F4 - Tie to 3HT 12F7
Chester 12F4 - Recond 1.75 mi
9CE 12F3/Bea 12F1 - Recond 1 mi
Sunset 12F1- Recond 1.5 mi
9CE 12F1- Tie to 6CE 12F3 Brdwy 0.5 mi
M/L 12F1 Recond 1/0 CU 0.8 mi
CHE 12F3 Recond 2/0 CU 3 mi
BKR 12F3 Recond 2/0 ACSR 1 mi
BKR 12F3 Recond 1 mi
M/L 12F2 Recond 0.5 mi
Colville 34F1 - Hwy 25N Recond
Gifford 34F1 - Replace Neutral
Orin 12F3-Recond 2.4 mi
Colville 12F2 - Recond 2 mi
Colville 12F2 - Recond 4.7 mi Oakshot
CHW12F2 - Recond 0.25 mi - town
CHW12F2- Angel Pk Recond 0.75mi
Orin 12F1 and Colv 12F2 Viper Midline
GRN12F1 Tie to CLV12F2 4.5 mi
GIF 34F1 - CHW 12F3 FDR Tie
Orin 12F2 - Recond 1.2 mi
GRN12F2 Recond 4.1 Mi Old Kettle Rd
CLV12F4 Recond 1.6 mi
KET12F2 - Chg FDR Voltage to 13.2 kV
CLV34F1- Kelly Hill Rbld
CHW12F2- Flowery Trail Recond
GIF34F1&2, CLV34F1- 3 Midlines
Colville Area Switched Banks

CDA and E

Sandpoint 4522 - Recond 0.7 mi
Old Town - Dx Tie Recond
Dalton 131 Recond 1.5 mi
Dalton 131 - Recond 1.4 mi
Avondale 151 - Recond 1.5 mi
Dalton 131 - Recon 0.8 mi (lakeshore)
Dalton 133 - Add 1-ph 3.1 miles
PF 213 - Recond 1.2 mi Riverbend Pk
Dalton 134- Coldwater Ck Loop
Pleasant View 241 - Ext 1 mi
Blue Ck 321- Recond 1.2 mi
Dalton 131 - Extend 0.5 mi
Pine Ck 424- Recond 1 mi
Wallace 542 - Relocate 1.5 mi to bike tr
Ogara 611 - Recond 1.5 mi
Rathdrum 233- UG 1 mi (Sytte Ranch)
Lucky Fil 652 - Add FDR
CDA - Osprey mitigation
Huetter 142 - Extend 3ph 0.5 mi
Blue Ck 321 Recond 3 mi
Lakeview 343 - Conv 6 mi to UG
Wallace 544-Recond for Star Mine

Palouse & L/C

Holbrook 1206 - Recond 3700'
Orofino 1281
10th&Stewart 1253 tie to 1256
10th&Stewart 1253 - 1 mi recond & regs
S Lewiston 1358 Extend
CFD 1210 - Recond #6 CU
Palouse 312 - Add Phase
Moscow 515 tie to 512
Ewan 241 Midline Regs

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Distribution Minor Rebuild

ER No: **ER Name:**
2055 Electric Distribution Minor Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 24,900 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	8,300	875	672	640	664	684	644	879	622	636	677	684	623
2016	8,300	876	672	640	664	684	644	879	622	636	677	684	622
2017	8,300	876	672	640	664	684	644	879	622	636	677	684	622

Business Case Description:
This program is for distribution minor rebuild as requested by the customer or initiated by Avista. Examples of construction work includes replacing meters, services, transformers, primary overhead or underground lines, or devices. This also includes addressing trouble related jobs (i.e. replacing burnt or damaged poles).

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Distribution Minor Rebuild		
Requested Amount	$ 8,300,000	Assessments:	
Duration/Timeframe	On-Going Year Program	Financial:	7.00%
Dept.., Area:	Operations	Strategic:	Reliability & capacity
Owner:	Bryan Cox	Business Risk:	Business Risk Reduction >15
Sponsor:	Don Kopczynski	Program Risk:	Moderate certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	102

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program is for distribution minor rebuild as requested by the customer or initiated by Avista. Examples of construction work includes replacing meters, services, transformers, primary overhead or underground lines, or devices. This also includes addressing trouble related jobs (i.e. replacing burnt or damaged poles).	describe any incremental changes that this Program would benefit present operations	$ 8,300,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	If we do not respond, we would not be addressing the minor rebuild jobs to maintain our distribution system. This program also includes responding to trouble calls. There would be potential public safety issues if our crews do not repsond.	n/a	$ -	$ -	$ -	20
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 8,500,000	$ -	$ -	$ 8,300,000
2015	$ 8,300,000	$ -	$ -	$ 8,300,000
2016	$ 8,549,000	$ -	$ -	$ 8,300,000
2017	$ 8,805,470	$ -	$ -	$ 8,300,000
2018	$ 9,069,634	$ -	$ -	$ 8,300,000
2019	$ 9,341,723	$ -	$ -	$ 8,300,000
2020+	$ -	$ -	$ -	$ -
Total	$ 52,565,827	$ -	$ -	$ 49,800,000

Associated Ers (list all applicable):			
2055			

ER	2015	2016	2017	2018	2019	Total
2055	$ 8,300,000	$ 8,549,000	$ 8,805,470	$ 9,069,634	$ 9,341,723	$ 44,065,827
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 8,300,000	$ 8,549,000	$ 8,805,470	$ 9,069,634	$ 9,341,723	$ 44,065,827

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

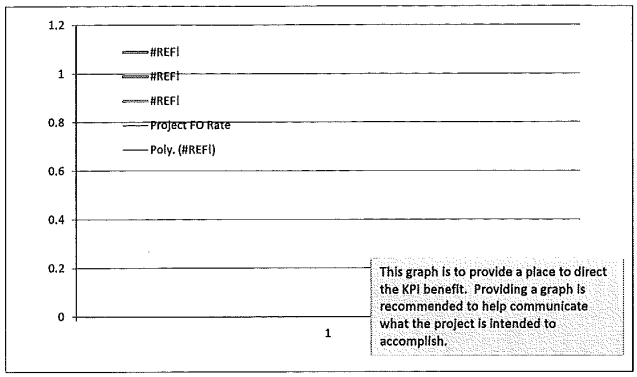
Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

Capital Program Business Case

AVISTA



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Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	**Template**

Printed: 01-29-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Distribution Minor Rebuild

Exhibit No. 11
Case Nos. AVU-E-15-05 and AVU-G-15-01
K. Schuh, Avista
Schedule 3, Page 205 of 295

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Distribution Transformer Change-Out Program ("TCOP")

ER No: **ER Name:**
2535 TCOP Related Distribution Rebuilds

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 10,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	4,700	514	379	357	373	387	360	516	345	355	382	386	346
2016	4,700	514	379	357	373	387	360	516	345	355	382	386	346
2017	1,100	120	89	84	87	90	84	121	81	83	89	90	81

Business Case Description:
The Distribution Transformer Change-Out Program has three main drivers. First, the pre-1981 distribution transformers that are targeted for replacement average 42 years of age and are a minimum of 30 years old. Their replacement will increase the reliability and availability of the system. Secondly, the transformers to be replaced are inefficient compared to current standards. Thirdly, pre-1981 transformers have the potential to have PCB containing oil. The transformers to be removed early in the programs are those that are most likely to have PCB containing oil and their replacement will reduce the risk of PCB containing oil spills.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Distibution Transformer Change-Out Program		
Requested Amount	$ 7,000,000	Assessments:	
Duration/Timeframe	25 Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	Asset Management & Process Improvement	Strategic:	Life Cycle Programs
Owner:	Glenn Madden (Manager) & Al Fisher (Dir)	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The Distribution Transformer Change-Out Program has three main drivers. First, the pre-1981 distribution transformers that are targeted for replacement average 42 years of age and are a minimum of 30 years old. Their replacement will increase the reliability and availability of the system. Secondly, the transformers to be replaced are inefficient compared to current standards and their replacement will result in energy savings. Thirdly, pre-1981 transformers have the potential to have pcb containing oil. The transformers to be removed early in the program are those that are most likely to have pcb containing oil and their replacement will reduce the risk of pcb containing oil spills which are a safety, environmental, and a public relations concern.	When completed save an average of 5.6 MW per hour and eliminate PCB environmental risks	$ 5,800,000	$ 105,000	$ -	3

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	No planned replacement program for distribution transformers. Substancially higher risk of a pcb containing oil spill occuring.	n/a	$ 4,500,000	$ 200,000	$ 900,000	12
Alternative 1: Transformer Change-Out Program	The Distribution Transformer Change-Out Program has three main drivers. First, the pre-1981 distribution transformers that are targeted for replacement average 42 years of age and are a minimum of 30 years old. Their replacement will increase the reliability and availability of the system.	When completed save an average of 5.6 MW per	$ 5,800,000	$ 105,000	$ -	3
Alternative 2:	Distribution Engineering has proposed that any pole that the TCOP does work on needs to have the guy replaced with the new standard guy insulator (fiber cable).		$ 200,000	$ -	$ -	0
Alternative 3 Name:			$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 7,000,000	$ 100,000	$ -	$ 6,000,000
2013	$ 7,200,000	$ 102,000	$ -	$ 2,924,015
2014	$ 5,800,000	$ 105,000	$ -	$ 3,944,000
2015	$ 5,800,000	$ 107,000	$ -	$ 4,700,000
2016	$ 5,800,000	$ 110,000	$ -	$ 4,700,000
2017				$ 1,100,000
2018				$ -
Total	$ 31,600,000	$ 524,000	$ -	$ 23,368,015

Associated Ers (list all applicable):

Current ER	1003			
	2060			
	2535			

Mandate Excerpt (if applicable):

Additional Justifications:

Resources Requirements: *(request forms and approvals attached)*

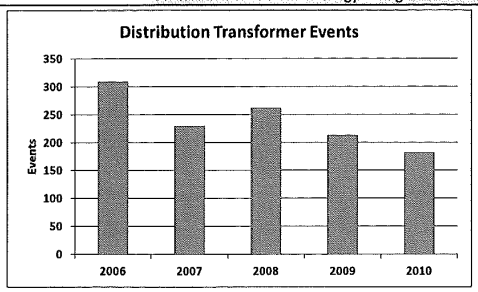
Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)		
Expected Performance Improvements		
KPI Measure:	Distribution Transformer Events	Distribution Transformer Oil Spills
	Distribution Transformer Energy Savings	



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Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

2006	309
2007	230
2008	262
2009	213
2010	182

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 01-08-2015
C:\Users\rf9457\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-06 - Update - Distribution Transformer Change Out Program

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Distribution Wood Pole Management ("WPM")

ER No: **ER Name:**
2060 Wood Pole Mgmt

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 34,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	11,000	1,201	886	837	874	905	843	1,207	808	831	895	905	810
2016	11,000	1,201	886	837	874	905	843	1,207	808	831	895	905	810
2017	12,000	1,310	967	913	953	987	919	1,316	882	906	976	987	883

Business Case Description:
Distribution Wood Pole Management Program inspects all Electric Distribution Feeders on a 20 year cycle and repairs or replaces wood poles, cross arms, missing lightning arresters, missing grounds, bad cutouts, bad insulating pins, bad insulators, leaking transformers, replaces guy wires not meeting current code requirements on poles replaced by WPM, and replaces pre-1981 transformers.

Offsets:
The attached copy of the business case does not identify any O&M offsets. However, The Company estimates the cost of an event associated with a bad wood pole based on crew response and labor is approximately $600. For the test year, Avista saw a slight increase in the number of outages to 850 events. For 2016 we anticipate a reduction of 110 events. We estimate that the O&M offset for 2016 due to Wood Pole Management work is $66,000 (System basis). This results in an Idaho offset of $23,000 in 2016.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Distribution Wood Pole Management**
Requested Amount	**Estimated Total Capital Expense**
Duration/Timeframe	Indefinite Year Program
Dept.., Area:	Asset Maintenance
Owner:	Glenn Madden (Manager) & Heather Rosentrater/A
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	NESC - See WPM Compliance Plan for details

Assessments:	
Financial:	7.42%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	93

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Distribution Wood Pole Management Program inspects all Electric Distribution Feeders on a 20 year cycle and repairs or replaces wood poles, crossarms, missing lightning arresters, missing grounds, bad cutouts, bad insulating pins, bad insulators, leaking transformers, replaces guy wires not meeting current code requirements on poles replaced by WPM, and replaces pre-1981 transformers	Customer IRR = 7.42% and avoids an average of 1,700 additional events per year	$ 11,172,022	$ 530,943	$ 5,996,350	15

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo : No Wood Pole Management	Run wood poles and associated equipment to failure	Increase OMT events by 1,700 events	$ 8,186,361		$ 6,834,467	25
Alternative 1: Distribution Wood Pole Management - 20 Year Inspection Cycle	Distribution Wood Pole Management Program inspects all Electric Distribution Feeders on a 20 year cycle and repairs or replaces wood poles, crossarms, missing lightning arresters, missing grounds, bad cutouts, bad insulating pins, bad insulators, leaking transformers, and replaces pre-1981	Customer IRR = 7.94% and avoids an average of 1,700 additional events per year	$ 10,712,022	$ 530,943	$ 5,996,350	15
Alternative 2: Distribution Wood Pole Management - 20 Year Inspection Cycle with Guy Wire	Distribution Wood Pole Management Program inspects all Electric Distribution Feeders on a 20 year cycle and repairs or replaces wood poles, crossarms, missing lightning arresters, missing grounds, bad cutouts, bad insulating pins, bad insulators, leaking transformers, replaces guy wires not	Customer IRR = 7.42% and avoids an average of 1,700 additional events per year	$ 11,172,022	$ 530,943	$ 5,996,350	15
Alternative 3 Name : Distribution Wood Pole Management - 10 Year Inspection Cycle with Guy	Distribution Wood Pole Management Program inspects all Electric Distribution Feeders on a 10 year cycle and repairs or replaces wood poles, crossarms, missing lightning arresters, missing grounds, bad cutouts, bad insulating pins, bad insulators, leaking transformers, replaces guy wires not	Customer IRR = 7.66% and avoids an average of 2,250 additional events per year	$ 17,296,437	$ 961,699	$ 4,920,632	10

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 9,893,700	$ 507,337	$ -	$ 9,486,300
2013				$ 9,281,686
2014	$ 11,500,000	$ 519,006	$ -	$ 9,550,000
2015	$ 11,500,000	$ 530,943	$ 4,540,023	$ 11,000,000
2016	$ 11,500,000	$ 543,155	$ 4,564,898	$ 11,000,000
2017	$ 15,000,000	$ 555,648	$ 4,574,638	$ 12,000,000
2018	$ 15,000,000	$ 570,094	$ 4,588,630	$ 12,000,000

Associated Ers (list all applicable):			
2060			

Capital Program Business Case

AVISTA

2019	$ -	$ -	$ -	$ 15,000,000
Total	$ 64,500,000	$ 2,718,846	$ 18,268,188	$ 70,550,000

ER	2014	2015	2016	2017	2018	Total
2060	$ -	$ -	$ -	$ -	$ -	$ 8,062
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -		

Mandate Excerpt (if applicable):

The current WPM program complies with the following part of the National Electric Safety Code: 013, 121, 212 A, 212 B, and 261 A.2

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

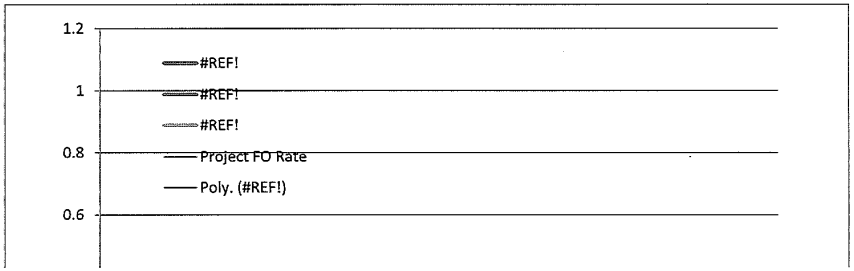
Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:		

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	WPM Related OMT Events
	Miles of Followup work completed compared to the annual goal



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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Printed: 01-08-2015
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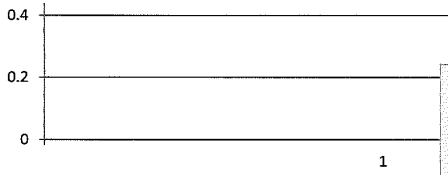

This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

	WPM Estimate for each years w		Guy Wire Replacem		Total	Proposed WPM Capital Budget
WPM 2014:	$10,712,022	+	$460,000	=	$11,172,022	$11,172,022
WPM 2015:	$10,673,453	+	$460,000	=	$11,133,453	$11,389,522
WPM 2016:	$10,571,162	+	$460,000	=	$11,031,162	$11,544,431
WPM 2017:	$10,608,892	+	$460,000	=	$11,068,892	$11,850,347
WPM 2018:	$10,585,416	+	$460,000		$11,045,416	$12,097,193

To be completed by Capital Planning Group

Rationale for decision

Review Cycles

2012-2016

Capital Program Business Case

Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Meter Minor Blanket

ER No: **ER Name:**
2073 Meter Minor Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 900 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	300	25	25	25	25	25	25	25	25	25	25	25	25
2016	300	25	25	25	25	25	25	25	25	25	25	25	25
2017	300	25	25	25	25	25	25	25	25	25	25	25	25

Business Case Description:
The existing power line carrier system for reading meters has failed and is not repairable. This project will replace the existing meters with two way automated communications system (TWACS) meters and replace substation equipment with TWACS equipment.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

Investment Name:	**Minor Meter Blanket**			
Requested Amount	**Estimated Total Capital Expenditure**	**Assessments:**		
Duration/Timeframe	0.2 Year Project	Financial:	12.56%	
Dept.., Area:	Electric Meter Shop	Strategic:	Reliability & Capacity	
Owner:	Heather Rosentrater	Business Risk:	Business Risk Reduction >5 and <= 10	
Sponsor:	Don Kopczynski	Project Risk:	High certainty around cost, schedule and resources	
Category:	Project			
Mandate/Reg. Reference:	n/a	Assessment Score:	104	

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The existing power line carier system for reading meters has failed and is not repairable. This project will replace the existing TURTLE meters with TWACs meters and replace substation equipment with TWACS equipment. 2/18/14 - requested carryover of $50k for work approved in 2013 but not finished until July 2014. Separate item - $390k increase associated with electric meter replacement non-revenue. Transfer from ER2059 as in prior years the charges associated with this work was allocated to ER2059. Total increase of $440k transfered from ER2059 - Storms.	Reduce overtime from meter reading and bill estimation	$ 90,000	$ 120	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	The Turtle meters will be hand read when they can and estimated through the winter.	n/a	$ -	$ 14,515	$ -	12
Alternative 1: Brief name of alternative (if applicable)	Replace with Fixed Network	Could only cover a percentage of the meters and	$ 55,000	$ 60	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ 90,000	$ -	$ -	$ 90,000
2014	$ 15,000	$ -	$ -	$ 340,000
2015	$ 15,000	$ -	$ -	$ 300,000
2016	$ 15,000	$ -	$ -	$ 300,000
2017	$ 15,000	$ -	$ -	$ 300,000
2018	$ -	$ -	$ -	$ 300,000
2019	$ -	$ -	$ -	$ 300,000
Total	$ 150,000	$ -	$ -	$ 1,930,000

Associated Ers (list all applicable):

ER	2013	2014	2015	2016	2019	Total
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (If applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☐ High Probablity ☐ YES

Enterprise Tech: ☐ YES - attach form ☐ NO or Not Required

Capital Tools: ☐ YES - attach form ☐ NO or Not Required ☐ YES - attach form ☐ NO or Not Required

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Minor Meter Blanket

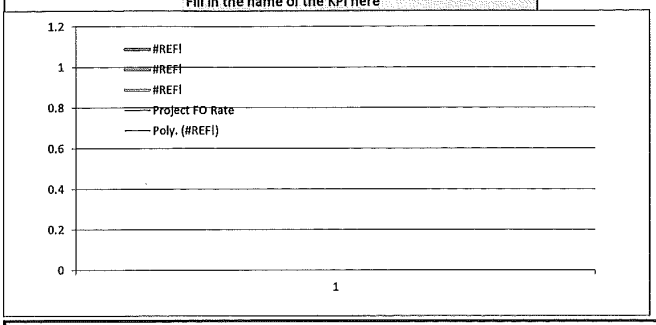
AVISTA

☐ YES - attach form

Capital Project Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Project

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 01-08-2015
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Exhibit No. 11
Case Nos. AVU-E-15-05 and AVU-G-15-01
K. Schuh, Avista
Schedule 3, Page 217 of 295

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Electric Replacement/Relocation

ER No:	**ER Name:**
2056	Distribution Line Relocations
2061	WSDOT Franchise Requirements Construction

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 7,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,400	248	195	186	193	198	187	249	182	185	196	198	182
2016	2,500	258	203	194	201	206	195	259	189	193	204	206	189
2017	2,600	268	211	202	209	215	203	269	197	201	213	214	197

Business Case Description:
This annual program will replace sections of existing infrastructure that require replacement due to relocation or improvement of streets or highways. Requirements may come from our franchise agreements, permits, or the Idaho Transportation Department. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

Investment Name:	Elec Replacement and Relocation		
Requested Amount	$ 2,700,000	Assessments:	
Duration/Timeframe	On-Going 2012+	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	Gas and Electric Operations	Strategic:	Other
Owner:	Al Fisher	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >10 and <= 15
Category:	Mandatory	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	Franchise Agreements and Permits	Assessment Score:	140

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This annual program will replace sections of existing infrastructure that require replacement due to relocation or improvement of streets or highways. Requirements may come from our franchise agreements, permits, or WA DOT. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements.		$ 2,700,000	$ -	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Avista would be out of compliance with established franchise agreements and/or permits if work is not completed.	n/a	$ -	$ -	$ -	16
Alternative 1:	Relocate facilities in conflict with street and highway projects where established franchise agreements and/or permits exist.	n/a	$ 2,700,000	$ -	$ -	2
Alternative 2:			$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
2012-2016

	Capital Cost	O&M Cost	Other Costs	Approved
Previous			$ -	$ -
2012	$ 2,400,000	$ -	$ -	$ 2,400,000
2013	$ 2,700,000	$ -	$ -	$ 2,200,000
2014	$ 2,300,000	$ -	$ -	$ 1,752,430
2015	$ 2,400,000	$ -	$ -	$ 2,400,000
2016	$ 2,500,000	$ -	$ -	$ 2,500,000
2017	$ 2,600,000	$ -	$ -	$ 2,600,000
2018	$ 2,700,000	$ -	$ -	$ 2,700,000
2019	$ -	$ -	$ -	$ 2,800,000
Total	$ 17,600,000	$ -	$ -	$ 19,352,430

Associated Ers (list all applicable):

Current ER	
2056	
2061	

Mandate Excerpt (If applicable):

Franchise agreements, typical state highway and R/R permits and WA Department of Transportaion prescribe that the utility will relocate at their expense when in conflict with entity activities.

Additional Justifications:

Mandatory work to maintain compliance with existing franchise and operating permits with state highway districts and rail roads.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability
Contract Labor:	☑ YES	☐ NO	

Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Facilities:	☐ YES - attach form	☑ NO or Not Required
Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)
Expected Performance Improvements

KPI Measure:	N/A - Mandatory Work
	Fill in the name of the KPI here

AVISTA

Capital Investment Business Case

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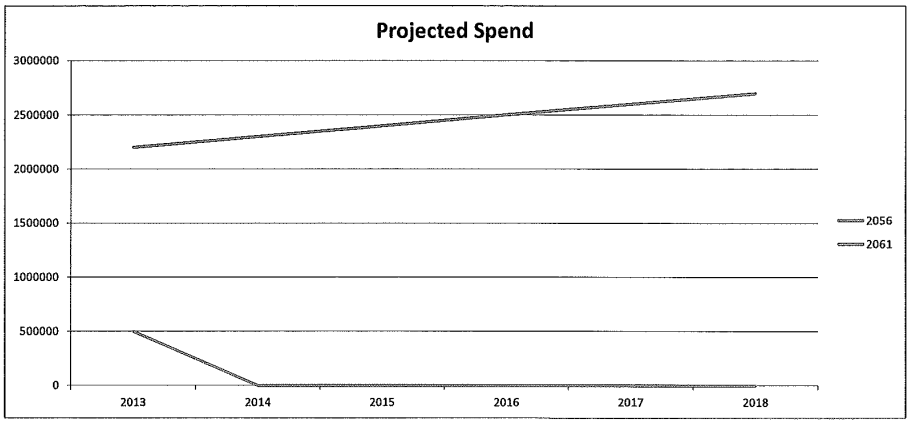
Director/Manager

WSDOT Franchise work will be incorporated into ER2056 in years 2014 - 2018

Other Party Review (if necessary) signature Margi Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed: 01-08-2015
C:\Users\rff9457\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-08 - Update - Elec Replacement Relocation Program Business Case and Review

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Environmental Compliance

ER No:	**ER Name:**
6000	PCB Identification & Disposal
6101	Forest Service Requirements
6002	Environmental Compliance Blanket

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	500	21	21	83	21	21	83	21	21	83	21	21	83
2016	500	21	21	83	21	21	83	21	21	83	21	21	83
2017	350	21	21	46	21	21	46	21	21	46	21	21	46

Business Case Description:
Implementation of Forest Service Special Use Permits, waste oil disposal, including polychlorinated biphenyls (PCB), and environmental compliance requirements related to storm water management, water quality protection, property cleanup and related issues, etc.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	Environmental Compliance		
Requested Amount	$250,000	**Assessments:**	
Duration/Timeframe	30 Year Program	Financial:	High - Exceeds 12% CIRR
Dept.., Area:	Environmental	Strategic:	Other
Owner:	Darrell Soyars (Mgr.); Bruce Howard (Dir)	Operational:	Operations require execution to perform at current levels
Sponsor:	Marian Durkin	Business Risk:	ERM Reduction >10 and <= 15
Category:	Mandatory	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	SUP; NEPA; PCB Disposal; EPA TSCA WA	Assessment Score:	182

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Implementation of Forest Service Special Use Permits (SUP) , Waste Oil Disposal, including PCBs , and Environmental Compliance requirements related to storm water managmeent, water quality protection, property cleanup and related issues, etc.	n/a	$ 250,000	$ -	$ -	6

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Alternative 1: Funded SUP implementation	Avista is required to perform various mitigation activities associated with our right-of-ways (ROW) across National Forest lands. These activities are performed under the framework of the Special Use Permits issue by United States Forest Service (USFS) for 30 years which requires mitigation project to protect.	n/a	$ 100,000	$ -	$ -	20
Alternative 2: Unfunded SUP implementation	If mitigation projects are not performed in accordance with the permit and annual workplans, this would represent a violation of the SUP, thus placing the activities associated with our ROW at risk. Potential for USFS enforcement/penalties, as well as NERC/WECC enforcement.		$ -	$ -	from moderate to extreme	6
Alternative 1: Funded PCB Disposal	Proper disposal of Waste Oil and PCB equipment is required under Washington State and Environmental Protection Agency (EPA), Toxic Substance Control Act (TSCA) regulations.		$ 150,000	$ -	$ -	0
Alternative 2: Unfunded PCB Disposal	If the PCB disposal is not funded, we would be subject to penalties/fines for non-compliance with state/federal laws, as well as subject to proper disposal via enforcement action or to cleanup liabilities, including recovery of treble damages by agencies.		$ -	$ -	from moderate to extreme	0
Alternative 1: Funded Environmental Compliance	Funding of this program reduces rish of non-compliance and evironmental liability		$ -	$ -	$ -	15
Alternative 2: Unfunded Environmental Compliance	If unfunded, Avista would run the risk of having facilities out of compliance an/or liability from contamination. Could experience fince or penalties		$ -	$ -	from moderate to extreme	2

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ 350,000
2013		$ -	$ -	$ 251,000
2014	$ 250,000	$ -	$ -	$ 151,000
2015	$ 250,000	$ -	$ -	$ 500,000
2016	$ 250,000	$ -	$ -	$ 500,000
2017	$ 250,000	$ -	$ -	$ 500,000
2018	$ 250,000	$ -	$ -	$ 500,000
2019	$ -	$ -	$ -	$ 500,000
Total	$ 1,250,000	$ -	$ -	$ 1,250,000

Associated Ers (list all applicable):

Current ER	6101	6000	6002

Mandate Excerpt (if applicable):

Additional Justifications:

SUP: Vegetation management is a requirement of the North American Electric Reliability Corporation (NERC) and in place to prevent outages from vegetation located on the transmission ROW and to minimize outages from vegetation located outside the ROW. Unmanaged vegetation growing near power lines can cause damage to facilities, interrupt power supply and start wildfires. Other objectives are to provide a clear, safe work space and access to teh ROW for construction and maintenance work. Permit conditions allow us to conduct vegetation management. PCB: EPA Federal PCB Regulations (for disposal of PCB equipment): Toxic Substances Control Act and Washington Dangerous Waste Regulations (provides criteria for managing and disposal of PCB).

Resources Requirements: *(request forms and approvals attached)*

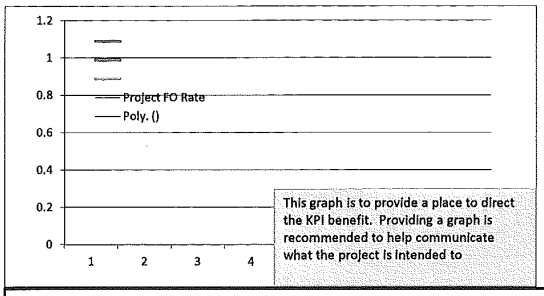
Capital Program Business Case

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	annual meetings with the National Forest Service (NFS)
	Environmental Protection Agency
	WDOE



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Director/Manager

Other Party Review (if necessary) signature Margi Stevens
Director/Manager

Capital Budget Projections

		2014	2015	2016	2017	2018	
ER 6000		150,000	150,000	150,000	150,000	150,000	PCB Wast Management
ER 6101		100,000	100,000	100,000	100,000	100,000	Permit Renewal/Implementation
ER 6002		200,000	200,000	200,000	200,000	200,000	Environmental Compliance Pullman Storm Water
E14		450,000	450,000	450,000	450,000	450,000	

Engineers Opinion Cost Estimat...

Avista SR 270 Site Storm Treat...

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Primary Underground Residential Distribution ("URD") Cable Replacement

ER No: **ER Name:**
2054 Electric Underground Replacement

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,000	27	20	19	207	208	207	215	18	19	20	21	18
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
This effort involves replacing the first generation of Underground Residential District (URD) cable. This project has been ongoing for the past several years and focuses on replacing a vintage and type of cable that has reached its end of life and contributes significantly to URD cable failures.

Offsets:
A five year plan to inspect and maintain our padmount equipment will add $800,000 per year (System basis) to O&M spending for the first five years, beginning in 2016. Idaho's allocation of the additional O&M Costs is $282,000.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

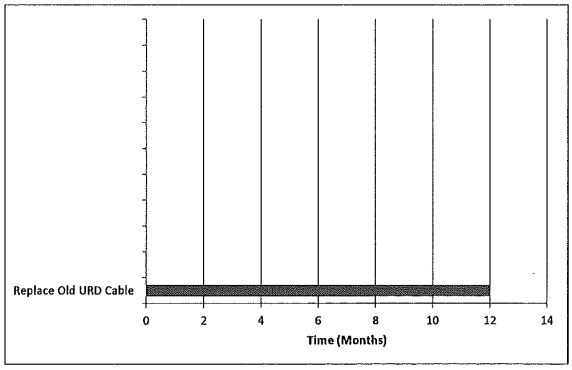
AVISTA

Investment Name:	Primary URD Cable Replacement 2013		
Requested Amount	$1,800,000	Assessments:	
Duration/Timeframe	2 Year Project	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Asset Management & Process Improvement	Strategic:	Life Cycle Programs
Owner:	Kevin Christie	Operational:	Operations improved beyond current levels
Sponsor:	Jason Thackson	Business Risk:	ERM Reduction >5 and <= 10
Category:	Project	Project/Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	110

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Complete the replacement of the un-jacketed first generation of Primary URD cable	Customer IRR = 10% and avoids an average of 600 outages per year	$ 1,800,000	$ -	$ -	4

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Status Quo :	Number of Primary URD Cable faults would increase and the cost to repair the cable would also increase. Without this work and the past 4 years of work, the increased O&M costs would sum up to $8.8 million over the next 5 years.	Increase number of Outage towards 700	$ -	$ -	$ 1,300,000	10
Alternative 1: Primary URD Cable Replacement	Complete the replacement of the un-jacketed first generation of Primary URD cable	Customer IRR = 10% and avoids an average of 600 outages per year	$ 1,800,000	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 19,852,679	$ -	$ -	$ 19,852,679
2012	$ 1,800,000	$ -	$ -	$ 1,982,000
2013	$ 1,000,000	$ -	$ -	$ 1,000,000
2014	$ 1,000,000	$ -	$ -	$ 750,000
2015	$ 1,000,000	$ -	$ -	$ 1,000,000
2016	$ 1,000,000	$ -	$ -	$ -
2017	$ 1,000,000	$ -	$ -	$ -
2018	$ 1,000,000	$ -	$ -	$ -
2019	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 27,652,679	$ -	$ -	$ 24,584,679

Milestones (high level targets)

November-11	Project Started	December-12	Plant In Service	mm/dd/yy	open
March-12	Project Plan	December-12	Project Complete	mm/dd/yy	open
June-12	Project Design	mm/dd/yy	open	mm/dd/yy	open
March-12	Major Procurement	mm/dd/yy	open		
September-12	Construction Start	mm/dd/yy	open		

Milestones should be general. In some cases it may be as simple as project start, project complete. Use your judgement on project progress so that progress can be measured.

Associated Ers (list all applicable):

Current ER	2054						

Mandate Excerpt (if applicable):

Additional Justifications:

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C:\Users\rf19457\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-10 - URD Cable Project Business Case and Review Template

Capital Investment Business Case

AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The Internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure: Primary URD Cable Events

Avoided Outage Benefits

KPI Description	Projected URD Cable - Primary OMT Events	Actual URD Cable - Primary OMT Events
2009	143	136
2010	119	93
2011	94	
2012	70	
2013	45	
2014	45	
2015	45	

the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review signature Margi Stevens

(if necessary) Director/Manager

Metric Description	Projected Avoided Costs due URD Cable - Pri Caused Outages	Actual Avoided Costs due to URD Cable - Pri Outages
2009	$1,038,613	$1,056,113
2010	$1,228,275	$1,295,225
2011	$1,368,561	
2012	$1,516,159	
2013	$1,744,539	
2014	$1,898,311	
2015	$1,997,052	

rts, or other data that may be useful in evaulating the project

The 10% customer IRR comes from the 2010 5 Year Plan and Budget Summary document
The ERM values come from the value of avoided outages associate with the early vintage of cable

The average URD-Primary OMT outage affects an average of 33 customers for 3.5 hours
Customer-Hours for base case = 700 * 33 * 3.5 = 80,850
Customer-Hours for base case = 50 * 33 * 3.5 = 5,775

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Transmission - Reconductors and Rebuilds

ER No:	**ER Name:**
2310	West Plains Transmission Reinforce
2423	System Transmission: Rebuild Condition
2457	Benton-Othello 115 Recond
2550	Burke-Thompson A&B 115kV Transmission Rebuild Project
2556	CDA-Pine Creek 115kV Transmission Line: Rebuild
2557	9CE-Sunset 115kV Transmission Line: Rebuild
2564	Devils Gap-Lind 115kV Transmission Rebuild Project
2575	Garden Springs-Silver Lake 115kV – Rebuild H&W-SLK
2576	Addy-Devils Gap 115kV – Rec/Rbld 266 & 397 Cond
2577	Benewah-Moscow 230kV - Structure Replacement
2582	Beacon-Bell-Francis & Cdr-Waikiki 115kV – Reconfigure

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 58,801 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	14,263	-	-	-	-	-	-	-	-	-	-	-	14,263
2016	23,661	-	-	-	-	-	-	-	7,100	-	-	-	16,561
2017	20,827	-	-	-	-	-	-	-	-	-	-	-	20,827

Business Case Description:
This program reconductors and/or rebuilds existing transmission lines as they reach the end of their useful lives, require increased capacity, or present a risk management issue. Projects include: ER 2310 - West Plains Transmission Reinforcement, ER 2550 - Pine Creek-Burke-Thompson, ER 2557 9CE-Sunset Rebuild, ER 2423 - System Condition Rebuild, ER 2457 Benton-Othello Rebuild, ER2556 CDA-Pine Creek Rebuild, ER 2564 Devils Gap-Lind Major Rebuild, ER 2574 - Chelan-Stratford River Crossing Rebuild, ER 2576a Addy-Devils Gap Reconductor, ER 2575 Garden Springs-Silver Lake Rebuild, ER 2582 BEA-BEL-F&C-WAI Reconfiguration, ER 2577 BEN-M23 Rebuild, ER 25xa - Out-Year Transmission Rebuild.

Offsets:
To calculate amount of the savings to be reflected in our rate year, reduced line losses are multiplied against the avoided energy cost of $44 per MWh to arrive at the total energy savings. Benton-Othello 115 will experience a reduction in line losses of 225 MWh both in 2016 and in 2017, which, after applying the avoided energy cost per MWh of $44, equates to $9,900 of offsets on a system basis in both 2016 and 2017 ($19,800 total), with $6,987 total allocated to Idaho Electric. For Bronx-Cabinet, after Avista's revenue requirement was finalized, it was determined that O&M Offsets should have been calculated by multiplying the avoided energy cost rate of $44 per MWh by 572 MWH for 2015 and 1,144 MWh for 2016. The resulting offsets amount to $75,504 ($25,168 in 2016 and $50,336 in 2017) for the total system and $26,645 ($8,882 in 2016 and $17,763 in 2017) for Idaho Electric. (The previously calculated Idaho allocation included in the revenue requirement was $23,447 for 2016 and 2017, in total)

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Tx - Recon and Rebids
Requested Amount	$20,000,000
Duration/Timeframe	50 Year Program
Dept.., Area:	T&D - TLD Engineering
Owner:	Heather Rostentrater
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	10.00%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	101

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program reconductors and/or rebuilds existing transmission lines as they reach the end of their useful lives, require increased capacity, or present a risk management issue. Projects include: ER 2310 - West Plains Transmission Reinforcement, ER 2550 - Pine Creek-Burke-Thompson, ER 2557 9CE-Sunset Rebuild, ER 2423 - System Condition Rebuild, ER 2457 Benton-Othello Rebuild, ER2556 CDA-Pine Creek Rebuild, ER 2564 Devils Gap-Lind Major Rebuild, ER 2574 - Chelan-Stratford River Crossing Rebuild, ER 2576a Addy-Devils Gap Reconductor, ER 2575 Garden Springs-Silver Lake Rebuild, ER 2582 BEA-BEL-F&C-WAI Reconfiguration, ER 2577 BEN-M23 Rebuild, ER 25xa - Out-Year Transmission Rebuild.	Improved performance (reduced losses), upgraded facilities, greater clearance, new life cycle, and greater load capabilities.	$ 20,000,000	$ -	$ -	1

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Transmission lines that would be rebuilt and/or reconductored under this program have 1) high loss conductor, or 2) deteriorated wood structures, or 3) corroded or deteriorated materials, or 4) insufficient clearance, or 5) inadequate capacity.	Med-High probability of a line overload, line failure, or injury/fine within the next 1-10 yrs.	$ -	$ -	$ -	8
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 11,446,742	$ -	$ -	$ 6,760,000
2015	$ 23,412,946	$ -	$ -	$ 17,912,946
2016	$ 26,536,134	$ -	$ -	$ 20,036,134
2017	$ 28,102,393	$ -	$ -	$ 20,852,393
2018	$ 26,000,000	$ -	$ -	$ 21,000,000
2019	$ 12,000,000	$ -	$ -	$ 12,000,000
Total	$ 127,498,215	$ -	$ -	$ 98,561,473

Associated Ers (list all applicable):			
2310	2549	2550	2557
2423	2457	2556	2564
2574	25xa	2576	2582
2577	2575		

ER	2014	2015	2016	2017	2018	Total
2310	$ -	$ 25,000	$ 1,000,000	$ -	$ -	$ 1,025,000
2549	$ -	$ -	$ -	$ -	$ -	$ -
2550	$ 3,700,000	$ 3,500,000	$ -	$ -	$ -	$ 7,200,000
2557	$ -	$ 25,000	$ 900,000	$ -	$ -	$ 925,000
2423	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 12,500,000
2457	$ 2,500,000	$ 3,600,000	$ 3,500,000	$ -	$ -	$ 9,600,000
2556	$ 25,000	$ -	$ 4,500,000	$ 5,750,000	$ 2,500,000	$ 12,775,000
2564	$ 2,346,742	$ 3,947,144	$ 4,050,558	$ -	$ -	$ 10,344,444
2574	$ 350,000	$ -	$ -	$ -	$ -	$ 350,000
25xa	$ -	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 2,000,000	$ 8,000,000
2576	$ -	$ -	$ -	$ 25,000	$ 2,000,000	$ 2,025,000
2582	$ -	$ -	$ 25,000	$ 2,000,000	$ -	$ 2,025,000
2577	$ 25,000	$ 7,815,802	$ 8,060,576	$ 8,302,393	$ -	$ 24,203,771
2575	$ -	$ -	$ -	$ 25,000	$ 2,000,000	$ 2,025,000
25xb	$ -	$ -	$ -	$ 7,500,000	$ 7,500,000	$ 15,000,000
25xc	$ -	$ -	$ -	$ -	$ 7,500,000	$ 7,500,000
Total	$ 11,446,742	$ 23,412,946	$ 26,536,134	$ 28,102,393	$ 26,000,000	$ 115,498,215

Mandate Excerpt (if applicable):

Provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Obligation to serve: Specific transmission lines require rebuild or reconductor for increased capacity due to load growth. Risk Management: Specific transmission lines require rebuild to reduce potential public injury risks. Addition of dollars for ER25xa in response to latest interpretation of FAC-11 (Standard for Reliability Coordinator) intended to remove copper wire bottlenecks while increasing System Operations response flexibility.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

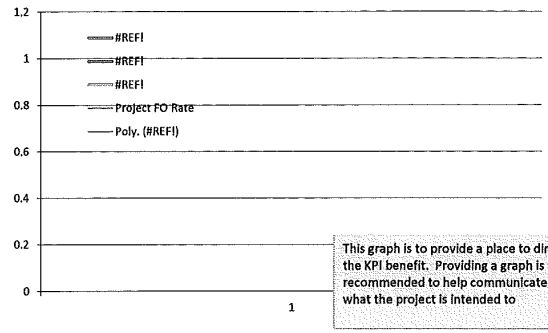
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Transmission - Reconductors and Rebuilds

Capital Program Business Case

AVISTA

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-08-2015
C:\Users\vf945\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-11 - Update - Transmission - Reconductors and Rebuilds

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Segment Reconductor and FDR Tie Program

ER No:	**ER Name:**
2514	Distribution - Spokane North & West
2515	Distribution - CdA East & North
2516	Distribution - Pullman & Lewis Clark

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 11,720 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	3,734	-	-	-	-	-	-	-	-	-	-	-	3,734
2016	3,809	223	223	223	223	223	223	223	223	223	223	223	1,358
2017	4,175	283	283	283	283	283	283	283	283	283	283	283	1,058

Business Case Description:
Distribution planning has identified a number of thermal constraints on the system where "segment reconductor" work is warranted to mitigate thermally overloaded conductor. In addition, a number of urban feeder tie additions are required to meet the Company's 500 Amp feeder plan also known as the "feeder and one-half" plan. This work is planned and coordinated with assistance from the five (5) Area Engineers in Spokane, Big Bend, Colville, Coeur'd Alene, and Pullman. Annual spend varies from year-to-year but the operational premise is constant: mitigate thermally overloaded conductor, mitigate known or emerging voltage issues, and establish FDR tie points in compliance with the Company's 500A Feeder Plan.

Offsets:
O&M offsets associated with this business case may occur in the future, however, they are not quantifiable at this time.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Segment Reconductor and FDR Tie Pgm		
Requested Amount	4,000,000 (variable, see below)	Assessments:	
Duration/Timeframe	On-going Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	Engineering	Strategic:	Reliability & Capacity
Owner:	Rosentrater/James (updated July 16, 2014)	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Distribution planning has identified a number of thermal constraints on the system where "segment reconductor" work is warranted to mitigate thermally overloaded conductor. In addition, a number of urban feeder tie additions are required to meet the Company's 500 Amp feeder plan also known as the "feeder and one-half" plan. This work is planned and coordinated with assistance from the five (5) Area Engineers in Spokane, Big Bend, Colville, Coeur'd Alene, and Pullman. Annual spend varies from year to year but the operational premise is constant: mitigate thermally overloaded conductor, mitigate known or emerging voltage issues, and establish FDR tie points in compliance with the Company's 500A Feeder Plan.	Investments necessary to maintain current operations and to extend the life of current assets.	$ 3,100,000			4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	ERM Risk Score
Unfunded Program:	Unfunding segment reconductor and FDR tie program will result in thermally overloaded conductor segments and significantly compromise the electric distribution system. Loss of load service capacity would result.	n/a	$ -	$ -	$ -	25
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows
5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 4,605,000		$ -	$ 3,605,000
2013	$ 4,300,000		$ -	$ 2,860,229
2014	$ 3,900,000		$ -	$ 3,179,993
2015	$ 3,735,000		$ -	$ 3,735,000
2016	$ 4,310,000		$ -	$ 3,810,000
2017	$ 4,175,000	$ -	$ -	$ 4,175,000
2018	$ 3,650,000	$ -	$ -	$ 3,650,000
2019	$ 3,550,000	$ -	$ -	$ 3,550,000
Total	$ 32,225,000	$ -	$ -	$ 28,565,222

Associated Ers (list all applicable):

Current ER	2514	2515	2516
	Spokane & West	CDA & East	South Region

Mandate Excerpt (if applicable):

Additional Justifications:

This program is a foundational element of our overall effort to maintain the electric delivery system. While many of the assett management programs such as WPM, PCB transformers, Worst Feeders, URD Cable replacement, are targeted efforts to maintain or improve reliability, this program specifically identifies thermal, voltage, and FDR tie issues amongst 345 individual electric circuits. This program represents the collective effort of distribution planners and area engineers to manage our ability to serve customer load reliably, efficiently, and securely.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

AVISTA

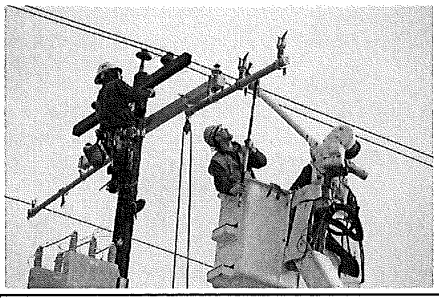
Capital Program Business Case

12 2

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Dx System Capacity Increase
	Dx System 500A Plan Compliance



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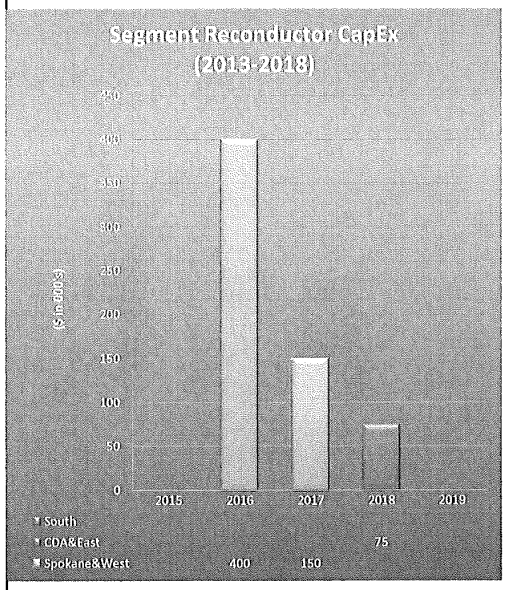
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager



ROX 751 - Reconductor (see 2414) Mica Peak Cnv to URD Deer Lake Xing COB 12F2 Green Bluff Tie LOO 12F2 Deer Lk Narrows Xing COB 12F1 Recond Midway 1 MI DEE 12F2 Bear Lk-Antler Tie DEE 12F2 Recond to LOO 12F1 SOT 522/523 - Recond- 6A WAS781 - Interset Poles LL - Cnv OH to UG (USFWS) LIB 12F2 - Henry Rd Tie CHE 12F1-12F4 Tie on Bowdish U District FDR Tie Trent Ave DEE 12F2 - Recond 2/0 ACSR LIB 12F1-EFM 12F2 Rocky Hill Tie BKR 12F2 - Tie to EFM 12F1 3HT 12F7 Tie U District Loop BKR 12F2 Recond 2/0 CU on Mission EFM 12F1 - State Ln Bridge - Conv OH/UG 9CE 12F4 Recond 336 9CE 12F2 - Tie to Chester 12F2 SLK 12F1 - Recond 2.1 mi C&W 12F4 - Tie to 3HT 12F7 9CE 12F3 Thierman/Mission Rcd 1 mi BKR 12F1 - Liberty Lk 12F2 on Mission CHW12F2- Angel Pk Recond 0.75mi GRN12F1 Tie to CLV12F2 4.5 mi GIF 34F1 - CHW 12F3 FDR Tie CLV 34F1- Kelly Hill Rbld CHW 12F2- Flowery Trail Recond GIF 34F1Midline GRN 12F2 Recond 4.1 Mi Old Kettle Rd CHW 12F4 Recond near Ctnwd Road CLV 12F4 Recond 1.6 mi KET 12F2 - Chg FDR Voltage to 13.2 kV DVP 12F2- Recond 6 miles Hwy 2 SPG 761 - Recond Small CU LIN 711 - Convert to 25 kV - tie Rox751 LIB 12F3 Rcd W Side Lib Lk NW 12F3 tie INT 12F1 Strong Rd URD COB 12F2 Bernhill Rd Rcd 2 ACSR 3HT 12F1-12F5 Tie at Iron Bridge BKR 12F3 Recond 1 mi-Central Premix COB 12F1 - Split FDR BKR 12F3 & SIP 12F3 Recond 1mi 3HT 12F3 Recond 2/0 Switch #980 MIL 12F2 ti to 12F3 Northwoods URD SIP General Upg WAK 12F1-12F4 Tie MIL12F4 tie OPT12F2 Mirabeau URD BEA 12F6-9CE 12F1 Hav. Rcd 1/0 ACSR FWT 12F4 - C&W 12F5 River Xing INT 12F2 Recond 2 mile-Rutter Pkwy COB 12F2 Recond Bernhill to Greenbluff INT 12F2 - DEE 12F1 Improve Tie LIB 12F2 Cnv to OH/UG at Mica Pk SUN 12F4 - Reconductor 2/0 @ SIA SUN 12F2 - Replace Sw 475 w/ Recloser DEE 12F1 Midine (protection req.) SUN 12F4 replace midline 249R SIP 12F3 to BKR (Central Premix) LIB 12F1 - EFM 12F2 Rocky Hill Tie BKR 12F3 Recond 2/0 ACSR 1 mi CLV Area Switched Banks CHW 12F3- ARD 12F2 FDR Tie (5 mi UG) LF34F1- Midline CLV 34F1 Midline OSB 521 - Recond/Viper for Coeur Mine OLD - Dx Tie Recond DAL 131 Recond 1.5 mi DAL 131 - Recond 1.4 mi DAL 131 - Recon 0.8 mi (lakeshore) DAL 133 - Add 1-ph 3.1 miles PF 213 - Recond 1.2 mi Riverbend Pk HUE 142 - Extend 3ph 0.5 mi DAL 134- Coldwater Ck Loop BLU 321 Recond 3 mi (Silver Beach) LKV 343 - Conv 6 mi to UG PVW 241 - Ext 1 mi BLU 321- Recond 1.2 mi PIN 442- Recond 1 mi WAL 544-Recond for Star Mine OGA 611 - Recond 1.5 mi PIN 441 - Reconductor FDR Tie SAG 741 - Recond Lignite 9200 ft SPT 4S21 - River Xing & Reloc at Sundowner OLD 721 - create UG loop for Ind Pk RAT 233 - Recond Hwy 41 to 2/0 ACSR PVW 243 - Cap Bank Riverbend Comm PF 213 - Recond McGuire Road BLU 321 - Rbld & UG near Tony's Rest CDA 125- Recond #6 Crapo Dalton & 17th CDA 124-Recond NIC Loop HOL 1206 - Recond 3700' SLW 1358 Extend ORO 1281 TEN 1253 - 1 mi recond & regs CFD 1210 - Recond #6 CU PAL 312 - Add Phase MOS 515 tie to 512 CFD 1211-ext 556 trunk 2miles DRY 1209-rebuild 5mi towards Silcott LOL 1359 - 2-3miles of lateral rbld PDL1201 tie to PDL 1208 PDL 1203 - 3ph loop, so portion TEN 1255 - recond .75 mi at 5th & Cedar TEN 1257 - 1 mi lateral rbld ORO 1281 - 1 mi recond at sub WSU Steam plant - cable & conduit CFD 1211- Regs at 1.5 miles GRV 1273- Regs at Orogrande and E City SWT 2403 - Cap bank at Lapwai WIK1279 - extend 2 ph Hwy 95 & Denver GRV 1272 tie to WIK 1278 so of hwy NLEW13 - addt river xing DRY 1208 tie to PDL 1202 - Fair & 13th SLW 1348 tie to SLW 1358 - 25th & 8th IFG Integration TEN 1256 - midline TEN 1257 tie to LOL 1266 ORO 1281-midline KOO 1299-midline JPE 1287-midline KAM-KOO tieline LEO 611-U/B with M115-N Lew Recond SPU Bishop Blvd URD Inc Cap.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Lewiston Mill Rd. 115 kV Substation – New Sub

ER No: **ER Name:**
1107 Lewiston Mill Rd. 115 kV Substation – New Sub

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 0 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Resid. CWIP
2015	684	-	-	-	-	-	-	-	-	-	-	-	-	684
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	

Business Case Description:
A new 115-13 kV substation is required to serve the sawmill for the Idaho Forest Group in Lewiston near Clearwater Paper Co. This new substation will have one 20 MVA transformer, 115 kV Circuit Switcher, panelhouse, full SCADA/Communications, and two 13 kV distribution feeder bays. The transmission will tap the existing Clearwater-Lolo #2 line with associated air switches for isolation. This substation is required for Avista to serve this customer.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	**Lewiston Mill Road Sub**
Requested Amount	**$2,000,000**
Duration/Timeframe	2 Year Project
Dept.., Area:	Substation & Transmission Engineering
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Value & Growth
Business Risk:	Business Risk Reduction >5 and <= 10
Project Risk:	High certainty around cost, schedule and resources
Assessment Score:	94

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
A new 115-13 kV substation is required to serve the sawmill for the Idaho Forest Group in Lewiston near Clearwater Paper Co. This new substation will have one 20 MVA transformer, 115 kV Circuit Switcher, panelhouse, full SCADA/Communications, and two 13 kV distribution feeder bays. The transmission will tap the existing Clearwater-Lolo #2 line with associated air switches for isolation. This substation is required for Avista to serve this customer. The existing service is through Clearwater Paper Co.'s delivery system as a result of selling off the sawmill to Idaho Forest Group.	Adds service to AVA's system; eliminates reliability issues; adds operational flexibility	$ 2,000,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	The existing service through Clearwater Paper Co.'s delivery system is not allowed and needs to be corrected. The existing service has been allowed to stay temporarily until Avista can construct a new sub and transfer the load.	Sawmill could impact the paper Co.'s operation	$ -	$ 100,000	$ 1,000,000	12
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ 50,000	$ -	$ -	$ 50,000
2014	$ 1,950,000	$ -	$ -	$ 1,950,000
2015	$ -	$ -	$ -	$ -
2016	$ -	$ -	$ -	$ -
2017+	$ -	$ -	$ -	$ -
Total	$ 2,000,000	$ -	$ -	$ 2,000,000

Associated Ers (list all applicable):			
1107			

ER	2013	2014	2015	2016	2017+	Total
1107	$ 50,000	$ 1,950,000	$ -	$ -	$ -	$ 2,000,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 50,000	$ 1,950,000	$ -	$ -	$ -	$ 2,000,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

October-13	Scoping Meeting	January-00	open	January-00	open
December-13	Obtain Easements as required	January-00	open	January-00	open
December-13	IFG to remove building; grade site	January-00	open	January-00	open
May-14	All Design Documents transmitted	January-00	open	January-00	open
December-14	Complete Construction-Energize	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☑ YES ☐ NO

Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required

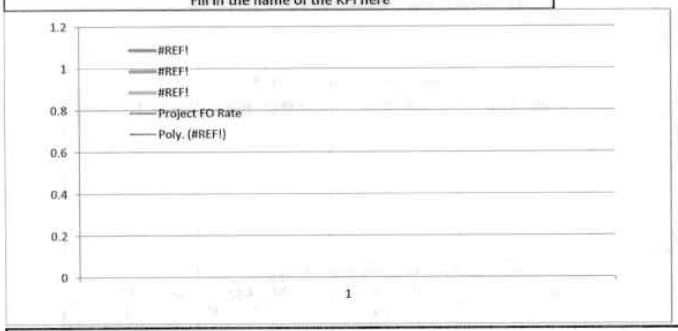
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

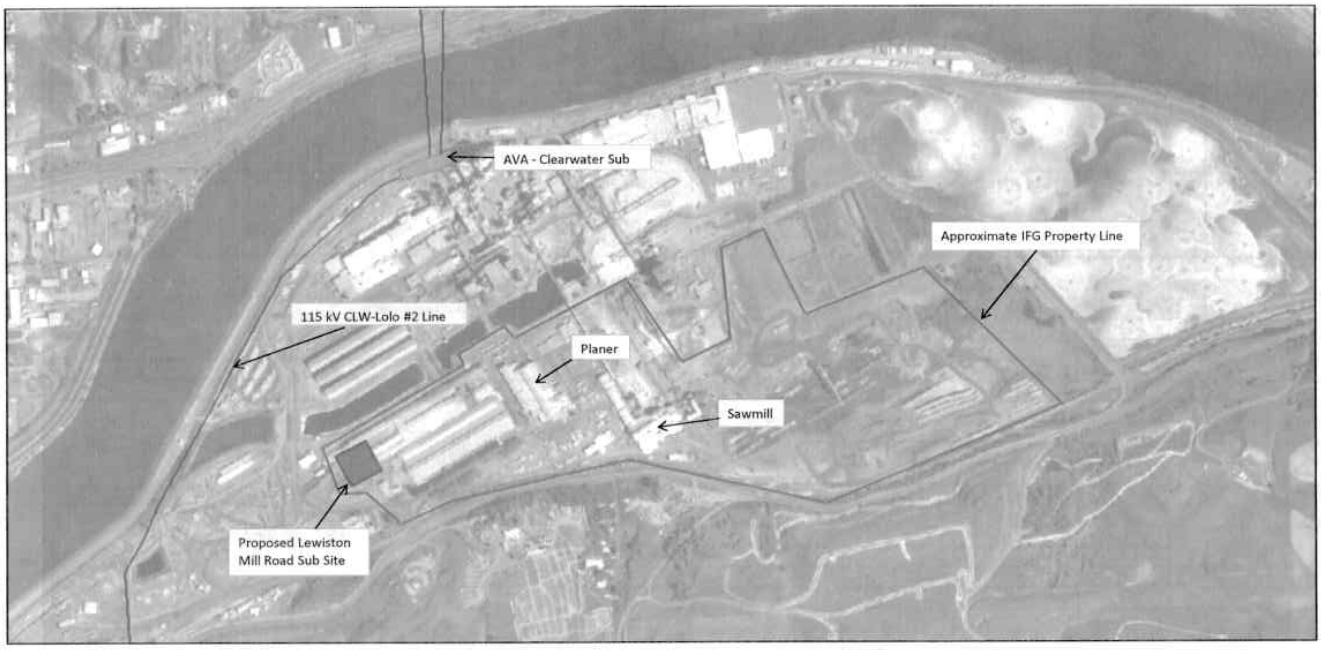


Prepared Mike Magruder/Ken Sweigart, T&D Substations/Transmission

Reviewed Heather Rosentrater, Director - ENSO

Other Party Review (if necessary) Andy Vickers, Director - GPSS

Idaho Forest Group (IFG) and Lewiston Mill Road Substation



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Storm Related Electric Transmission and Distribution Capital Project

ER No:	**ER Name:**
2051	Electric Transmission Plant-Storm
2059	Failed Electric Dist Plant-Storm

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 8,673 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	3,000	389	289	233	215	196	186	245	180	208	242	292	325
2016	2,790	351	261	216	204	191	180	242	174	196	226	264	285
2017	2,883	366	272	223	209	194	184	246	178	202	233	275	299

Business Case Description:
This program will replace cross arms, poles and structures as required due to storms, fires on distribution and transmission lines.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Storms		
Requested Amount	$ 3,000,000	**Assessments:**	
Duration/Timeframe	On-going Year Program	Financial:	7.00%
Dept.., Area:	Operations	Strategic:	Reliability & capacity
Owner:	Bryan Cox	Business Risk:	Business Risk Reduction >15
Sponsor:	Don Kopczynski	Program Risk:	Moderate certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	102

Recommend Program Description:		Annual Cost Summary - Increase/(Decrease)			
	Performance	Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program will replace crossarms, poles and structures as required due to storms, fires on distribution and transmission lines.	describe any incremental changes that this Program would benefit present operations	$ 3,000,000	$ -	$ -	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	If we do not replace our failed infastructure due to storms and fire, Avista will risk having an unreliable system, increased O&M costs to repair, and decreased customer satisfaction.	n/a	$ -	$ -	$ -	25
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 3,300,000	$ -	$ -	$ 9,860,000
2015	$ 3,000,000	$ -	$ -	$ 3,000,000
2016	$ 3,090,000	$ -	$ -	$ 2,790,000
2017	$ 3,182,700	$ -	$ -	$ 2,882,700
2018	$ 3,278,181	$ -	$ -	$ 2,978,181
2019	$ 3,376,526	$ -	$ -	$ 3,076,526
2020+	$ -	$ -	$ -	$ -
Total	$ 19,227,407	$ -	$ -	$ 24,587,407

Associated Ers (list all applicable):			
2051			
2059			

ER	2015	2016	2017	2018	2019	Total
2051	$ 1,100,000	$ 1,100,000	$ 1,100,000	$ 1,100,000	$ 1,100,000	$ 5,500,000
2059	$ 1,900,000	$ 1,990,000	$ 2,082,700	$ 2,178,181	$ 2,276,526	$ 10,427,407
0	$ -	$ -	$ -	$ -	$ -	$ -
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Total	$ 3,000,000	$ 3,090,000	$ 3,182,700	$ 3,278,181	$ 3,376,526	$ 15,927,407

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

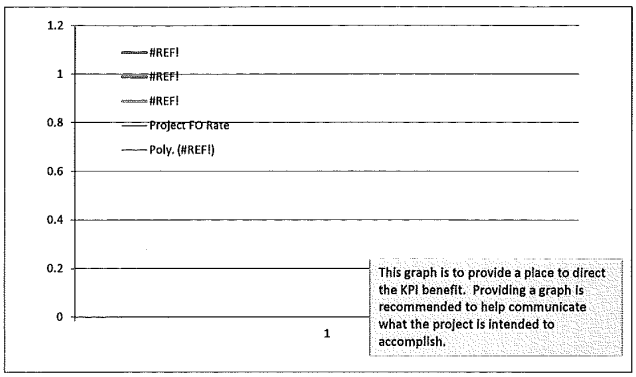
Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

Printed 01-09-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Storms

Capital Program Business Case



Prepared signature

Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margie Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-08-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Storms

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Substation - 115 kV Line Relay Upgrades

ER No: **ER Name:**
2217 Spokane-CDA 115 kV Line Relay Upgrades

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,000[1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,525	-	-	-	-	1,000	-	-	-	525	-	-	-
2016	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
The 115 kV Transmission line relaying in the greater Spokane-Couer d'Alene area needs to be upgraded. Per System Protection's revised memo dated 10/25/07, the relaying and communications must be upgraded to eliminate false trips and mis-coordination of relays as well as the requirement to trip lines quickly enough to avoid system transient instability, which could lead to cascading outages. The first two years of the project completed the installation of fiber optic communications to all the required substations. Year Two marked the beginning of relay upgrades in the Spokane area, and the remainder of the project will complete the relay upgrades as planned.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

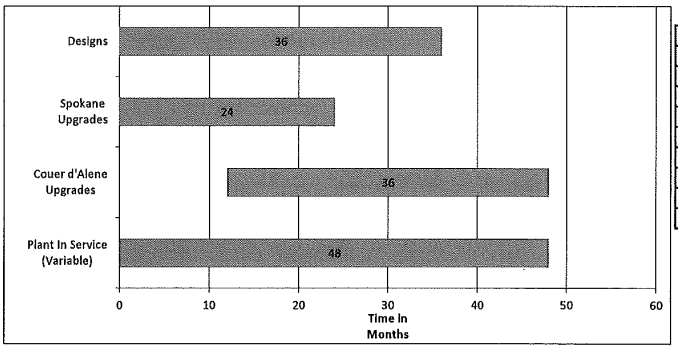
AVISTA

Investment Name:	Substation - 115 kV Line Relay Upgrades		
Requested Amount	$7,274,676	Assessments:	
Duration/Timeframe	7 Year Project	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	T&D - Substation Engineering	Strategic:	Reliability & Capacity
Owner:	Heather Rosentrater	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >0 and <= 5
Category:	Project	Project/Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	79

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The 115 kV Transmission line relaying in the greater Spokane-Couer d'Alene area needs to be upgraded. Per System Protection's revised memo dated 10/25/07, the relaying and communications must be upgraded to eliminate false trips and mis-coordination of relays as well as the requirement to trip lines quickly enough to avoid system transient instability, which could lead to cascading outages. The first two years of the project completed the installation of fiberoptic communications to all the required substations. Year Two marked the beginning of relay upgrades in the Spokane area, and the remainder of the project will complete the relay upgrades as planned.	Improved comm., relay operation, & avoidance of potential large system outage problems.	$ 7,274,676	$ -	$ -	1

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Under certain operating conditions and fault scenarios, our 115 kV system in the greater Spokane-Couer d'Alene area is susceptible to potentially large transmission outages. Existing protection schemes and equipment cannot operate quickly enough to prevent these scenarios from occurring.	n/a	$ 100,000	$ 500,000	$ 500,000	6
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 2,624,675	$ -	$ -	$ 2,624,675
2012	$ 1,000,000	$ -	$ -	$ 1,000,000
2013	$ 1,250,000	$ -	$ -	$ 205,001
2014	$ 1,250,000	$ -	$ -	$ 75,000
2015	$ 1,000,000	$ -	$ -	$ 1,000,000
2016	$ -	$ -	$ -	$ -
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 7,124,675	$ -	$ -	$ 4,904,676

Milestones (high level targets)

January-09	Start Communications Infrastructure - Spokane	January-13	Start Couer d'Alene Area Relay Upgrades
January-10	Start Communications Infrastructure - Couer d'Alene	December-16	Complete Spokane Area Relay Upgrades
January-10	Start Relay Upgrades - Spokane	December-17	Complete Couer d'Alene Area Relay Upgrades
December-10	Complete Communications Infrastructure		
January-11	Continue Spokane Area Relay Upgrades		

Associated Ers (list all applicable): 2217

Mandate Excerpt (if applicable): Obligation to serve: Maintain a reliable system that meets customer demand and reliablity standards.

Additional Justifications:

This project is already in construction.
Additional documentation is available upon request including System Protection Documentation, Proposed Schedules and Priorities, Internal Substation Memos, meeting notes, etc.

Resources Requirements: *(request forms and approvals attached)*

Printed: 01-08-2015
C:\Users\rf19457\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-15 - Update - Substation - 115kV Line Relay Upgrades Project Business Case and Review

Capital Investment Business Case

AVISTA

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required	Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required	
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required	
				Fleet:	☐ YES - attach form	☑ NO or Not Required	

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Complete 3 Line Relay Upgrades per year.

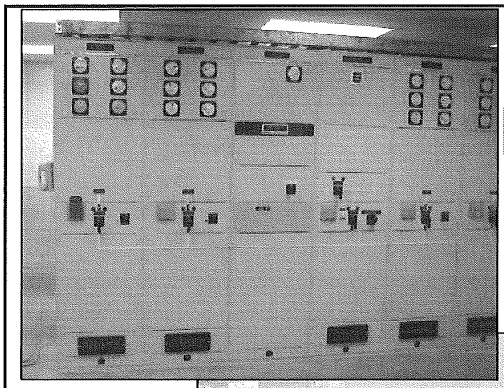
Prepared: Mike Magruder, Manager - Substation Engineering

Reviewed: Heather Rosentrater, Director - ENSO

Reviewed: Andy Vickers, Director - GPSS

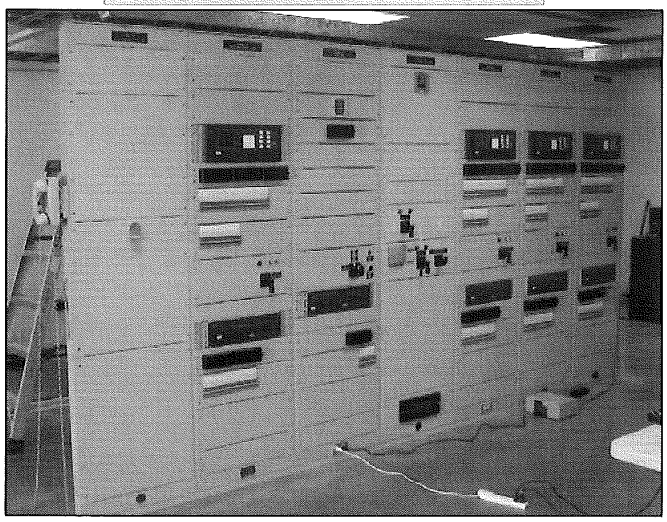
Margi Stevens

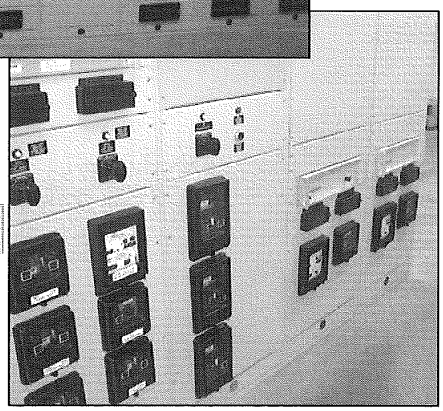
Otis Orchards 115 kV Switching Station



Old Control & Meter Panels

New Line Relay Panels (below) recently completed. New relays are microprocessor-based SEL relays using high-speed communications via the fiberoptic network previously installed.





Old Electromechanical Relays

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Substation - Asset Mgmt. Capital Maintenance

ER No:	ER Name:
2215	System - Replace High Voltage Breakers
2252	System - Replace/Install Relays
2253	System - Upgrade Meters
2275	System - Rock/Fence Restore
2278	System-Replace Obsolete Reclosers
2280	System - Replace Obsolete Circuit Switchers
2293	SCADA - Install/Replace
2294	System - Batteries
2336	System - Replace Dist Power Xfmrs
2425	System - High Voltage Fuse Upgrades
2449	System - Replace Substation Air Switches
2481	System-Replace/Install Capacitor Banks
2492	System-Install Autotransformer Diagnostic Monitor
2493	System-Replace/Upgrade Voltage Regulators

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 12,300 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,708	221	1	346	163	364	138	221	101	393	263	407	88
2016	4,819	222	2	347	164	365	2,239	222	102	394	264	408	89
2017	4,851	225	4	350	167	368	142	225	104	397	267	410	2,192

Business Case Description:
This program installs, replaces, or upgrades substation apparatus via Asset Management planning or emergency replacements. All obsolete, end-of-life, or failed apparatus are covered under this program. Apparatus includes panel houses and associated equipment, high voltage breakers, relays, metering, surge arresters, rock and fence, low voltage breakers/reclosers, circuit switchers, SCADA systems, batteries and chargers, power transformers, high voltage fuses, air switches, capacitor banks, autotransformer diagnostic equipment, step voltage regulators, and instrument transformers.

Offsets:
The System-Install Autotransformer Diagnostic Monitor program includes additional incremental costs in 2016 of $162,000 ($57,000 ID). O&M Costs beginning in 2016 are estimated to be $170,300 with potential O&M savings of $8,217 annually. Therefore, the net costs from the Autotransformer program are $162,000, as previously discussed.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Substation - Asset Mgmt. Capital Maintenance**		
Requested Amount	**$4,100,000**	**Assessments:**	
Duration/Timeframe	40 Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	T&D - Substation Engineering	Strategic:	Life Cycle Programs
Owner:	Heather Rosentrater	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program installs, replaces, or upgrades substation apparatus via Asset Management planning or emergency replacements. All obsolete, end-of-life, or failed apparatus are covered under this program. Apparatus includes panelhouses and associated equipment, HV breakers, relays, metering, surge arresters, rock and fence, LV breakers/reclosers, circuit switchers, SCADA systems, batteries and chargers, power transformers, HV fuses, air switches, capacitor banks, autotransformer diagnostic equipment, step voltage regulators, and instrument transformers.	Renew asset life cycle; remove obsolete, end of life apparatus; upgrade; install new apparatus	$ 4,100,000	$ -	$ -	2

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Maintain (to the best of our ability) all obsolete or end-of-life apparatus. Repair or replace equipment on emergency basis only. Some repairs would not be possible due to obsolescence. Considerably more, and longer, customer outages would result.	n/a	$ 500,000	$ 1,000,000	$ 500,000	12
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 4,100,000	$ -	$ -	$ 4,100,000
2013	$ 4,100,000	$ -	$ -	$ 4,582,020
2014	$ 4,100,000	$ -	$ -	$ 4,100,000
2015	$ 4,100,000	$ -	$ -	$ 4,100,000
2016	$ 4,100,000	$ -	$ -	$ 4,100,000
2017	$ 4,100,000	$ -	$ -	$ 4,100,000
2018	$ 4,100,000	$ -	$ -	$ 4,100,000
2019	$ -	$ -	$ -	$ 4,100,000
Total	$ 28,700,000	$ -	$ -	$ 33,282,020

Associated Ers (list all applicable):

2210	2215	2252	2253	2260
2275	2278	2280	2293	2294
2326	2336	2343	2397	2425
2449	2481	2492	2493	2505

Mandate Excerpt (if applicable):

Additional Justifications:

In general, this program is required for operations to perform at current levels as assessed above. However, it could easily be argued that the end results of Capital Maintenance actually **Improve operations beyond current levels** as obsolete equipment is often replaced with apparatus of higher capacity and/or newer technology. If prudent, and if time, resources, and funding allow, we will take every opportunity to make improvements to substation operations when we perform Capital Maintenance.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

AVISTA

Capital Program Business Case

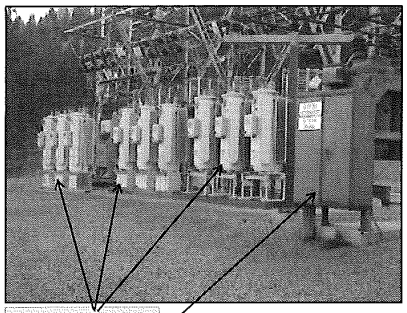
Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Meet AM Plan Requirements for all Apparatus
	Maintain or increase annual program spend to meet demand

Prepared _____
Mike Magruder, Manager - Substation Engineering

Reviewed _____
Heather Rosentrater, Director - ENSO

Reviewed _____
Andy Vickers, Director - GPSS
Margie Stevens

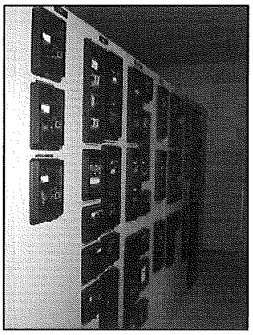
Capital Maintenance - Apparatus



Step Voltage Regulators

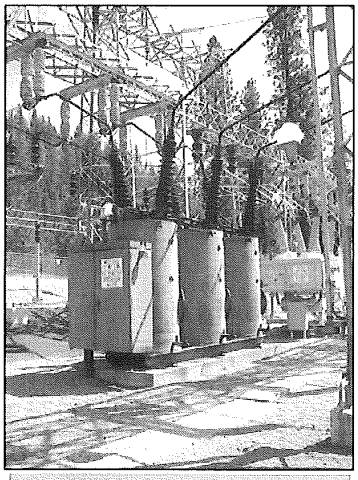
LV (13 kv) Breaker

Sunset Substation

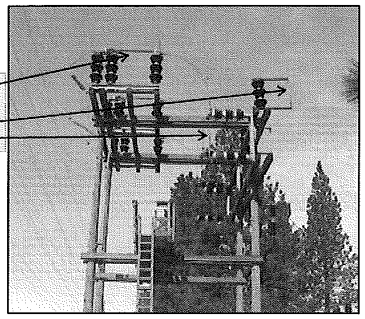


Electromechanical Relays

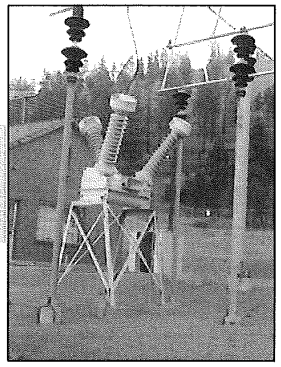
Westside Substation



Sunset Substation - 115 kV Oil Circuit Breaker A-198
HV Breaker - oldest breaker on Avista's system.



Hern Substation
115 kV Air Switch
115 kV Spill Gaps (to be replaced with Surge Arresters)
HV Fuses



Instrument Transformer

Old 3-phase bus PT

Sunset Substation

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Substation - Capital Spares

ER No:	**ER Name:**
1006	Power Xfmr-Distribution
2000	Power Xfmr-Transmission
2001	Power Circuit Breaker

Approved Business Case Spend Amount 2015-2017 ($000s - System): $14,765 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	5,100	-	-	160	-	560	-	-	400	3,420	400	160	-
2016	6,115	-	-	-	-	650	-	-	900	250	4,315	-	-
2017	2,000	-	-	200	-	650	-	-	900	250	-	-	-

Business Case Description:
This program maintains our fleet of Power Transformers and High Voltage Circuit Breakers. This fleet of critical apparatus is capitalized upon receipt and placed in service for both planned and emergency installations as required. The annual program expenditures may vary significantly in years when an Autotransformer (230/115 kV) is purchased. In years without an Autotransformer purchase, only minor variations will occur based on planned projects as well as replenishing apparatus fleet levels required for adequate capital spares. These are long lead time items so apparatus levels need to be managed.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Substation - Capital Spares	Assessments:	
Requested Amount	$4,720,000	Financial:	Medium - >= 5% & <9% CIRR
Duration/Timeframe	50 Year Program	Strategic:	Life Cycle Programs
Dept.., Area:	T&D - Substation Engineering	Operational:	Operations require execution to perform at current levels
Owner:	Heather Rosentrater	Business Risk:	ERM Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program maintains our fleet of Power Transformers and High Voltage Circuit Breakers. This fleet of critical apparatus is capitalized upon receipt and placed in service for both planned and emergency installations as required. The annual program expenditures may vary significantly in years when an Autotransformer (230/115 kV) is purchased. In years without an Autotransformer purchase, only minor variations will occur based on planned projects as well as replenishing apparatus fleet levels required for adequate capital spares. These are long lead time items so apparatus levels need to be managed.	Renew asset life cycle; meet capacity requirements; adequate spare inventory	$ 4,720,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	We will not have vital system capital spares required to maintain our electric system in the event of failures (emergency), planned system improvements (reliability), or obligation to serve (growth). In addition, some of this apparatus may be required for compliance upgrades in reliability and capacity.	n/a	$ -	$ 500,000	$ 250,000	8
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 3,835,000	$ -	$ -	$ 2,535,000
2013	$ 4,865,000	$ -	$ -	$ 5,225,100
2014	$ 5,115,000	$ -	$ -	$ 1,950,000
2015	$ 9,045,000	$ -	$ -	$ 6,000,000
2016	$ 4,265,000	$ -	$ -	$ 4,565,000
2017	$ 5,800,000	$ -	$ -	$ 4,200,000
2018	$ 3,865,000	$ -	$ -	$ 5,065,000
2019	$ -	$ -	$ -	$ 4,025,000
Total	$ 36,790,000	$ -	$ -	$ 33,565,100

7-year average annual projected spend: $ 4,220,014

Associated Ers (list all applicable):

1006	2000	2001		

Mandate Excerpt (If applicable):

Obligation to serve: Long lead time capital spares are required to meet system needs and service expectations.

Additional Justifications:

Transformers and High Voltage Circuit Breakers (capital spares) are placed in service based on requirements and need. Replacement transformers and breakers are purchased to maintain required capital spares count. This is managed closely by Substation Engineering with annual reviews of capital spares and planned needs.
In general, this is a Life Cycle Program for these assets. This Program also includes a Reliability and Capacity (improved reliability and growth) component as well as a Mandatory (Compliance) component. Commodity pricing and manufacturer lead times can be variable which can lead to increased costs and/or delayed receipt.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

AVISTA

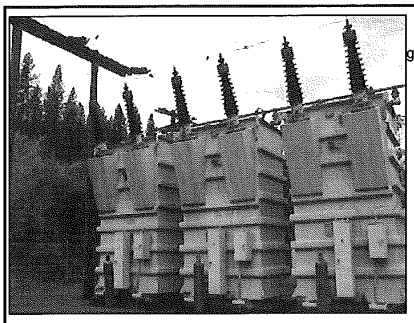
Capital Program Business Case

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Annual capital spares review and summary report.
	Every capital spare will be justified.

Prepared _____
Mike Magruder, Manager - Substation Engineering

Reviewed _____
Heather Rosentrater, Director - ENSO

Other Party Review signature Margie Stevens
(if necessary) Director/Manager



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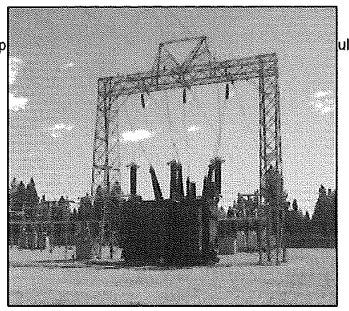

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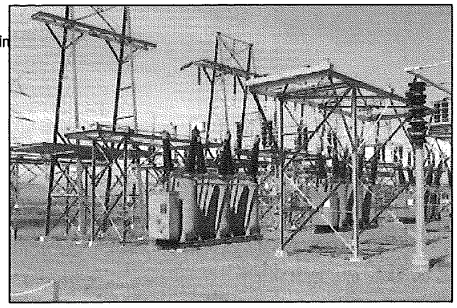
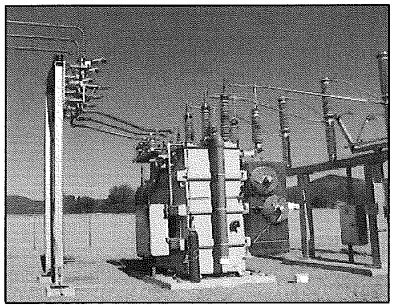
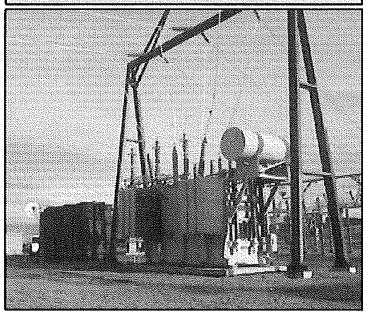


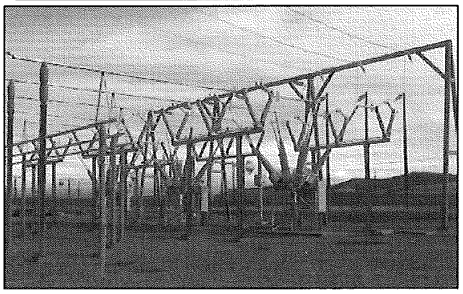
ER 1006: Distribution Power Transformers
Older single phase units shown above from Kooskia 115 kV Sub.
New 3-phase unit shown below from Idaho Road 115 kV Sub.

ER 2000: Transmission Power Transformers
Older unit shown above from Westside 230 kV Sub.
New unit (and old one next to it) shown below from Benewah 230 kV Sub.

ER 2001: Power Circuit Breakers
Older 115 kV Oil Circuit Breakers (above) from Lolo Sub.
New 115 kV Gas Circuit Breakers (below) from Benewah Sub.







To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Substation - Distribution Substation Rebuilds

ER No:	ER Name:		
2204	System Wood Substation Rebuilds	2567	Chester 115 kV - Rebuild Substation
2285	Sunset Sub - Rebuild	2568	Metro 115 kV - Rebuild Substation
2317	Lyons & Standard 115 Sub-Increase Capacity	2569	Gifford 115 kV - Rebuild Substation
2341	Ninth & Central Sub - Increase Capacity & Rebuild	2590	Deer Park 115 kV Sub – Minor Rebuild
2562	Grangeville 115 kV Sub - Rebuild	2395	SE 115 Bus-Upgrd Xfmr and add 12F6
2566	Northwest 115 kV - Rebuild Substation	2573	Little Fall 115 kV Sub – Rebuild

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 15,530 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,387	6	6	6	6	6	6	756	6	6	1,114	106	361
2016	5,849	36	36	286	36	1,436	36	36	36	36	3,486	36	351
2017	6,180	21	21	21	21	21	1,321	1,421	21	21	2,561	21	711

Business Case Description:
This program replaces and/or rebuilds existing substations as they reach the end of their useful lives, require increased capacity, or cannot accommodate necessary equipment upgrades due to existing physical constraints. Included are Wood Substation rebuilds as well as upgrading stations to current design and construction standards. Some station rebuilds may be initiated by other requirements, including obligation to serve, growth, and external projects. Examples of substation rebuilds to be completed under this program in the next 5 years are Big Creek & Kamiah (Wood Substation), Millwood (Life Cycle), Turner (Smart Grid Investment Grant), Blue Creek (Productivity), Lucky Friday (Growth), and Pine Creek Distribution (Life Cycle).

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Substation - Distribution Station Rebuilds		
Requested Amount	$8,168,573	Assessments:	
Duration/Timeframe	50 Year Program	Financial:	MH - >= 9% & <12% CIRR
Dept.., Area:	T&D - Substation Engineering	Strategic:	Life Cycle Programs
Owner:	Heather Rosentrater	Operational:	Operations improved beyond current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	105

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program replaces and/or rebuilds existing substations as they reach the end of their useful lives, require increased capacity, or cannot accommodate necessary equipment upgrades due to existing physical constraints. Included are Wood Sub rebuilds as well as upgrading stations to current design and construction standards. Some station rebuilds may be initiated by other requirements, including obligation to serve, growth, and external projects (e.g. Smart Grid). Examples of substation rebuilds to be completed under this program in the next 5 years are Big Creek & Kamiah (Wood Subs), Millwood (Life Cycle), Turner (SGIG), Blue Creek (Productivity), Lucky Friday (Growth), and Pine Creek Distribution (Life	Improved performance, upgraded equipment, better status & control, new life cycle.	$ 8,168,573	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Obsolete and/or high loss equipment, deteriorated wood structures, and non-standard construction or equipment would remain in service until failure. Some stations may need additional capacity for growth or may not be suitable for required expansions to meet other (e.g. Regulatory, SGIG) needs.	Relatively high probability of a station failure within 10 yrs.	$ 1,000,000	$ 500,000	$ 250,000	8
Alternative 1: Planned Equipment Replacements.	Continuation of non-standard construction practices and configurations leading to considerably slower and more dangerous working conditions for field crews. This would only allow for minimal improvements to the subs while requiring more O&M to maintain aging infrastructure and equipment.	Performance remains at current levels; min. improve	$ 1,500,000	$ 500,000	$ -	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 7,750,000	$ -	$ -	$ 7,750,000
2013	$ 8,350,000	$ -	$ -	$ 4,798,013
2014	$ 7,680,000	$ -	$ -	$ 5,866,082
2015	$ 7,635,000	$ -	$ -	$ 6,000,000
2016	$ 7,585,000	$ -	$ -	$ 5,500,000
2017	$ -	$ -	$ -	$ 5,500,000
2018	$ -	$ -	$ -	$ 8,770,000
2019	$ -	$ -	$ -	$ 10,170,000
Total	$ 39,000,000	$ -	$ -	$ 54,354,095

7-year average projected spend: $ 6,312,014

Associated Ers (list all applicable):

2204	2283	2285	2341	2465
2502	2521	2522	2546	2562
2563	2565	2566	2567	2568
2569	2572	2573		

Mandate Excerpt (If applicable):

Obligation to serve: Specific substations may require rebuild for increased capacity due to load growth.

Additional Justifications:

This program replaces substations that are at the end of their life cycle or require rebuild for other reasons including capacity, reliability, growth, and contractual or regulatory obligations. Some substations, like Lucky Friday, could be standalone projects under the Mandatory category since we have to meet customer load growth. Therefore, cuts to this program need to be closely evaluated.
Program Link: Substation transmission integration budget dollars ($415k - $435k) are included in this program.
Program Link: Substation distribution integration budget dollars ($300k - $1.15M) are included in this program.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

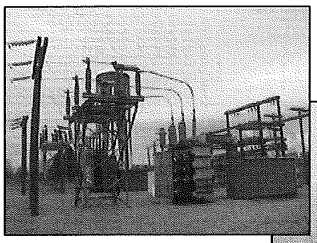
Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Complete 3 rebuilds per year.
	Complete Metro Sub EPC Rebuild by 2018.

Prepared _____
Mike Magruder, Manager - Substation Engineering

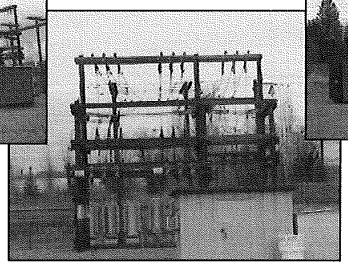
Reviewed _____
Heather Rosentrater, Director - ENSO

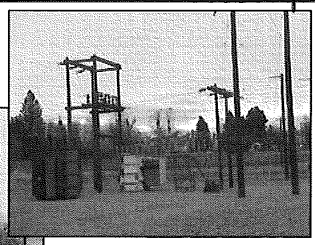
Reviewed _____
Andy Vickers, Director - GPSS

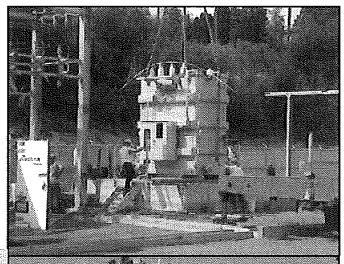
Margie Stevens



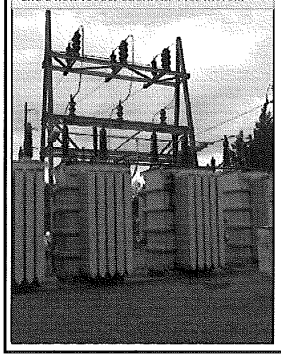
Millwood Sub - 1950's vintage substation. Switchgear and partial wood sub. Also serves IEP.



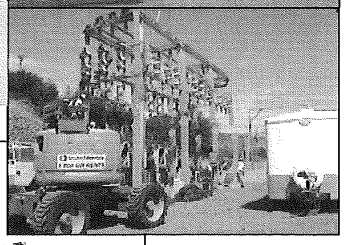




Blue Creek Sub (Below) - Productivity is driving the replacement of the "lossy" transformers, which is driving the rebuild of the station to add oil containment, SCADA, better protection, a panelhouse, and a new feeder addition. Plus more...



Turner Sub (Right) - Under construction (Aug. 2011). To be completed in 2012. Photos show today's standard design and construction for reference. Rebuilds will be similar construction.



Lucky Friday Sub (Left) - Growth is driving this rebuild as the Lucky Friday Mine is adding between 2-8 MW over the next 10 years starting as early as Fall of 2012. Increasing capacity is requiring a rebuild for the required protection, SCADA, oil containment, and a second feeder. Included will be a space for a Mobile Sub installation.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Substation - New Distribution Substations

ER No:	**ER Name:**
2274	Tamarack 115Kv Sub-Construction
2322	Downtown West Sub - Property
2443	Greenacres 115-13kV Sub - New Construct
2587	Irvin 115-13 kV Sub - Add Distribution Station

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 5,025 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,026	-	-	-	-	-	1,900	-	-	-	-	-	126
2016	75	-	-	-	-	-	-	-	-	-	-	-	75
2017	2,323	21	21	21	21	21	21	1,846	21	21	21	21	269

Business Case Description:
This program adds new distribution substations to the system in order to serve new and growing load as well as for increased system reliability and operational flexibility. New substations under this program will require planning and operational studies, justifications, and approved project diagrams prior to funding. Planned new substation projects include Tamarack (NE Moscow), Greenacres and Irvin (Spokane Valley), Hillyard and Downtown West (Spokane). Out years include construction for these and design and construction for one new substation per year on average depending on need and justifications.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	Substation - New Distribution Stations		
Requested Amount	$1,430,714	Assessments:	
Duration/Timeframe	50 Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	T&D - Substation Engineering	Strategic:	Reliability & Capacity
Owner:	Heather Rosentrater	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	80

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program adds new distribution substations to the system in order to serve new and growing load as well as for increased system reliability and operational flexibility. New substations under this program will require planning and operational studies, justifications, and approved Project Diagrams prior to funding. This documentation will be included with this business case. Planned new substation projects include Tamarack (NE Moscow), Greenacres and Irvin (Spokane Valley), Hillyard and Downtown West (Spokane). Out years include construction for these and design and construction for 1 new substation per year on average depending on need and justifications.	Improved performance, reliability, operational flexibility; Obligation to Serve.	$ 1,430,714	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Without adding new substations as justified, we would not be able to adequately meet our obligation to serve.	Unable to add load to system; poor system operation.		$ 250,000	$ 250,000	9
Alternative 1: Extend Feeders; Increase Substation Capacities	Extension of distribution feeders from neighboring substations and increased capacity at those substations would be required at a minimum. The negative impact is most certainly reduced reliability and difficulty in long term maintenance and system operation. Increased liability would result.	Longer outages for more customers; system stress.	$ 1,000,000	$ 150,000	$ -	6
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 1,275,000	$ -	$ -	$ 250,000
2013	$ 8,220,000	$ -	$ -	$ 525,000
2014	$ 1,400,000	$ -	$ -	$ 3,086,665
2015	$ 2,750,000	$ -	$ -	$ 1,375,000
2016	$ 2,000,000	$ -	$ -	$ 1,175,000
2017	$ -	$ -	$ -	$ 2,475,000
2018	$ -	$ -	$ -	$ 2,050,000
2019	$ -	$ -	$ -	$ 1,525,000
Total	$ 15,645,000	$ -	$ -	$ 12,461,665

7-year average projected spend: $ 1,562,381

Associated Ers (list all applicable):

2274	2321	2322	2398	2443
2459	2479	2480	2587	

Mandate Excerpt (if applicable):

Obligation to serve: Substations will need to be added to the system as justified for increased capacity and operational reliability requirements due to load growth.

Additional Justifications:

New distribution substations added to the system for load growth and reliability are critical to the long term operation of the system. As load demands increase and customer expectations rise regarding reliability, incremental distribution substation capacity is required. This allows for improved operational flexibility, better system reliability, and easier routine maintenance scheduling as equipment is more easily taken out of service because load can be transferred.

Program Link: Substation transmission integration budget dollars ($20k - $3.45M) are included in this program. The Bovill Sub transmission line is budgeted for $3.45M in 2013.

Program Link: Substation distribution integration budget dollars ($25k - $500k) are included in this program. The Bovill Sub distribution integration is budgeted for $500k in 2013.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Energize new subs before need as justified.

Prepared _____
Mike Magruder, Manager - Substation Engineering

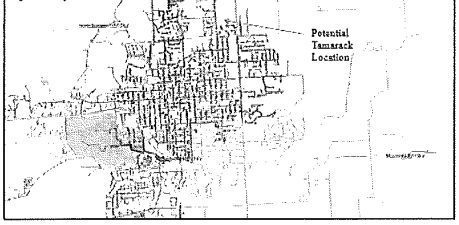
Reviewed _____
Heather Rosentrater, Director - ENSO

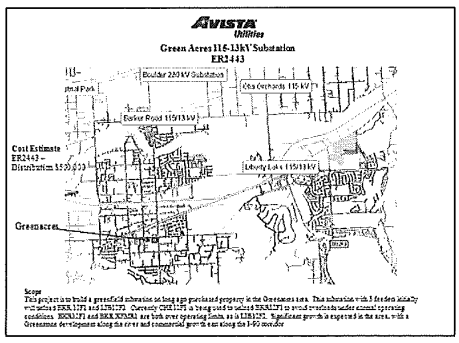
Reviewed _____
Andy Vickers, Director - GPSS

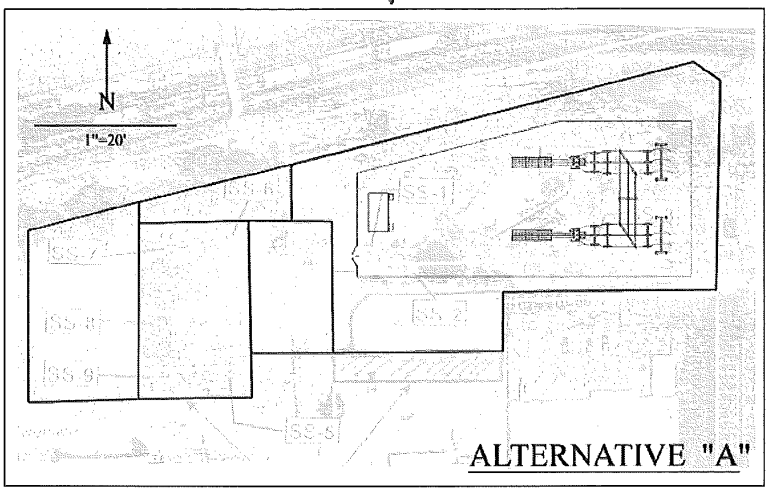
Margi Stevens

Justification

Tamarack will initially unload 2 feeders – Moscow 115 513 and 514
These are long feeders that serve both suburban and rural load.
The Moscow 115 transformers are loaded to 63% and 89% (Winter 2009), with more load projected primarily west of Moscow.
Shifting load between Moscow stations would allow us to better configure feeds for the town, particularly from North Moscow – which is in a less than ideal location.







Upper Left: Project Diagram and preliminary justification for Tamarack Sub (NE Moscow).
Lower Left: Project Diagram and Scope for Greenacres Sub (Spokane Valley).
These Project Diagrams and associated background information via Distribution Planning studies are a requirement for any new substations to be funded under this Program. Each study will be included with the Business Case for reference.

Above: Shown is a preliminary design for a potential new substation in the University District in downtown Spokane. The property has been secured and as electric load increases in the U-District, this new substation will need to be constructed ahead of the need to ensure we have the required capacity and system reliability. In addition, this new sub will improve overall operational flexibility to serve all of our electric load in the U-District vicinity. Construction could occur in the next 3-10 years depending on the load growth.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Tribal Permits and Settlements

ER No: **ER Name:**
2301 Tribal Permits and Settlements

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 2,045 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,430	119	119	119	119	119	119	119	119	119	119	119	119
2016	316	26	26	26	26	26	26	26	26	26	26	26	26
2017	297	25	25	25	25	25	25	25	25	25	25	25	25

Business Case Description:
Avista has hydroelectric, transmission, distribution and substation facilities located on the Coeur d'Alene, Colville, Flathead (Salish/Kootenai), Nez Perce and Spokane Tribe Reservations. These facilities are essential components of our energy resource and delivery systems. Avista is required to obtain permits from the Bureau of Indian Affairs (BIA) for its facilities on land held in trust by the federal government for Tribes and/or individual tribal members. Through some of its tribal settlements, Avista obtained the necessary tribal consent and BIA permits for its facilities on tribal trust land. However, Avista needs to renew approximately 700 rights of way permits for other facilities on Trust Land. The original permits were obtained 50+ years ago and the renewal process can be time-consuming (multiple years) and costly. Some of the permits may be in a trespass situation. Avista is actively working with the BIA and the Tribes to file renewal applications and complete the renewal process.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Tribal Permits anad Settlements		
Requested Amount	$325,000	Assessments:	
Duration/Timeframe	5 years Year Program	Financial:	High - Exceeds 12% CIRR
Dept.., Area:	Real Estate for Native American Relations	Strategic:	Reliability & Capacity
Owner:	Toni Pessemier	Operational:	Operations require execution to perform at current levels
Sponsor:	Jason Thackston	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	25 U.S.C. 323 & 357; 25 CFR 169	Assessment Score:	94

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Avista has hydro, transmission/distribution and substation facilities on the Coeur d'Alene, Colville, Flathead (Salish/Kootenai), Nez Perce and Spokane Tribe Reservations. These facilities are essential components of our energy resource and delivery systems. Avista is required to obtain permits from the Bureau of Indian Affairs (BIA) for its facilities on land held in trust by the federal government for Tribes and/or individual tribal members. through some of its tribal settlements, Avista obtained the necessary tribal consent and BIA permits for its facilities on tribal trust land. However, Avista needs to renew approximately 700 rights of way permits for other facilities on Trust Land. The original permits were obtained 50+ years ago and the renewal process can be time-consuming (multiple years) and costly. Some of th epermits may be in a trespass situation. Avista is actively working with the BIA and the Tribes to file renewal applications and complete the renewal process.	Maintaining facilities in existing locations versus costs of having to relocate	$ 325,000	$ -	$ -	8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	If permits remain expired or allowed to continue to expire, our facilities will be in a trespass situation exposing the company to litigation and poor media exposure. Additional construction would be required to re-route lines.	Lines could be removed from service impacting	$ 10,000,000	$ -	$ 1,000,000	16
Alternative 1: Relocation of facilities	Relocation of distribution, 115kV Transmission and 230kV Transmission facilities off reservation and onto road rights of way or private property would involve unplanned man-hours, fleet and equipment, as well as appraisals, surveys, title reports, easements and compensation.	Restore service to today's system.	$ 10,000,000	$ -		0
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 325,000	$ -	$ -	$ 325,000
2013	$ 325,000	$ -	$ -	$ 325,000
2014	$ 500,000	$ -	$ -	$ 500,000
2015	$ 1,250,000	$ -	$ -	$ 1,430,000
2016	$ 250,000	$ -	$ -	$ 315,000
2017	$ 300,000	$ -	$ -	$ 300,000
2018	$ 250,000	$ -	$ -	$ 250,000
2019	$ -	$ -	$ -	$ 150,000
Total	$ 3,200,000	$ -	$ -	$ 3,595,000

Associated Ers (list all applicable):

Current ER	2301			

Mandate Excerpt (if applicable):

25 U.S.C. 323 (Tribal Trust Lands); 25 U.S.C. 357 (Allotted Lands) and 25 CFR 169 (process)

Additional Justifications:

If Avista is unable to obtain its needed rights of way (ROW) across Tribal Trust, Tribal Fee and Allotted lands, the financial risk to Avista is significant. For example, Avista could be exposed to trespass damages and the requirement that it move, at substantial epense, its lines and facilities.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

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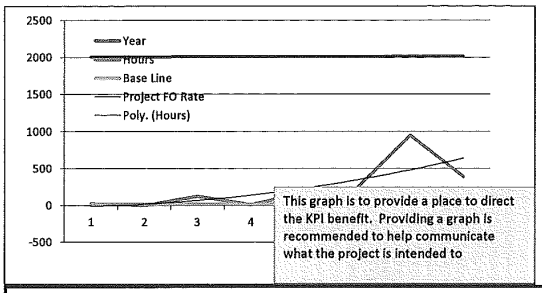
Capital Program Business Case

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



Prepared signature

Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Worst Feeders

ER No: **ER Name:**
2414 Sys-Dist Reliability-Improve Worst Feeders

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 6,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,999	21	21	21	21	21	21	21	21	21	21	21	1,770
2016	2,000	100	100	125	125	125	125	250	250	250	250	150	150
2017	2,000	167	167	167	167	167	167	167	167	167	167	167	167

Business Case Description:
Initiating in 2009, ER 2414- "Worst Feeders" was proposed by Asset Management to improve the service reliability of the Company's worst performing electric distribution circuits. Many rural feeders significantly exceed the Company SAIFI target of 2.1. This program is coordinated through divisional Area Engineers to identify treatment of these feeders. Work plans may include, reconstruction, hardening, vegetation management, conversion from overhead to underground, enhanced protection, and relocation.

Offsets:
O&M offsets associated with this business case may occur in the future, however, they are not quantifiable at this time.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Program Business Case

Investment Name:	Underperforming Elec Ckts (Worst FDRs)		
Requested Amount	$2,000,000	Assessments:	
Duration/Timeframe	on-going Year Program	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	Engineering/Operations	Strategic:	Life Cycle Programs
Owner:	Rosentrater/James (updated July 16, 2014)	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >5 and <= 10
Category:	Program	Program Risk:	Moderate certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	84

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Initiating in 2009, ER 2414- "Worst Feeders" was proposed by Asset Management to improve the service reliability of the Company's worst-performing electric distribution circuits. Many rural feeders significantly exceed the Company SAIFI target of 2.1. This program is coordinated through divisional Area Engineers to identify treatment of these feeders. Work plans may include, reconstruction, hardening, vegetation management, conversion from OH to UG, enhanced protection, and relocation.	Improve the overall system performance of the Company's "top ten" worst feeders.	$ 2,000,000	$ -	$ -	12

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Rural area reliability indices expected to worsen as infrastructure ages and deteriotes. Expect customer contacts to local media and state government and regulatory bodies.	Ten to twenty rural FDRs whose SAIFI exceeds 10	$ -	$ -	$ -	20
50% funding	Funding at $1,000,000 would restrict current treatment to top five worst feeders.	annual spend restricted to top five worst feeders	$ 1,000,000	$ -	$ -	12
25% funding	Funding at 500,000 would restrict treatment to enhanced protection only (adding midline reclosers, additional fusing)	work plan restricted to enhanced protection	$ 500,000	$ -	$ -	0
		describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

5 years of costs

	Capital Cost	O&M Cost	Other Costs	Approved
2012	$ 2,000,000	$ -	$ -	$ 1,500,000
2013	$ 2,000,000	$ -	$ -	$ 1,741,750
2014	$ 2,000,000	$ -	$ -	$ 1,808,800
2015	$ 2,000,000	$ -	$ -	$ 2,000,000
2016	$ 2,000,000			$ 2,000,000
2017	$ 2,000,000			$ 2,000,000
2018	$ 2,000,000	$ -	$ -	$ 2,000,000
2019	$ 2,000,000	$ -	$ -	$ 2,000,000
Total	$ 16,000,000	$ -	$ -	$ 15,050,550

Associated Ers (list all applicable):

Current ER	2414			

Mandate Excerpt (If applicable):

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Program, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

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Capital Program Business Case

AVISTA

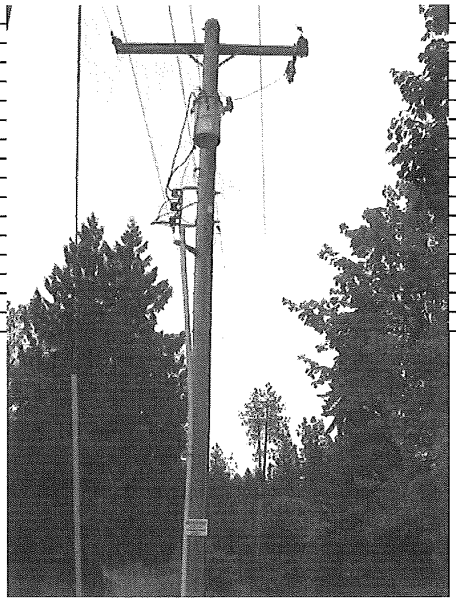
Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Monitor SAIFI

Prepared signature

Reviewed signature
Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

Feeder	7-yr Rank	7-yr Ave	3-yr Rank	3-yr Ave	%Dif 3yr v. 7yr	1-yr Rank	% Dif 1yr v 3yr
GRV1273	1	21.02	1	13.07	38%	3	23%
DER651	2	10.44	2	8.97	14%	12	41%
GIF34F2	3	7.40	7	6.32	15%	4	-50%
SPI12F1	4	7.19	3	7.47	-4%	10	21%
STM633	5	7.18	8	6.08	15%	6	-24%
CHW12F3	6	5.58	14	4.73	15%	24	14%
JPE1287	7	5.37	4	6.82	-27%	30	46%
GIF34F1	8	5.19	17	4.11	21%	11	-32%
VAL12F1	9	5.11	6	6.34	-24%	17	24%
CLV34F1	10	5.01	11	5.29	-6%	5	-61%
ROX751	11	4.97	10	5.34	-7%	118	76%
ODN732	12	4.87	9	6.00	-23%	1	-142%
WEI1289	13	4.70	5	6.78	-44%	53	66%
WAL543	14	4.66	19	4.06	13%	26	0%
VAL12F2	15	3.85	20	3.90	-1%	8	-63%



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Spokane Valley Transmission Reinforcement

ER No:	**ER Name:**
2446	Irvin Sub - New Construction
2474	Beacon-Boulder #2 115: Capacity Upgrade
2552	Opportunity 115 kV Switching Station

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 8,890 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	2,900	-	-	-	-	-	-	-	-	-	-	2,300	600
2016	7,440	-	-	-	-	-	-	-	-	-	5,400	-	2,040
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
The Spokane Valley Transmission Reinforcement Project includes rebuilding 4.4 miles of the Beacon - Boulder #2 115 kV Transmission Line, constructing the new Irvin Switching Station, rebuilding 1.75 miles of the Irvin - Opportunity 115 kV Tap, installing circuit breakers at Opportunity Substation, and constructing a new 2.2 mile 115 kV transmission line from Irvin to Millwood/Inland Empire Paper. The completion of these projects are required to mitigate existing and future performance and reliability issues of the Transmission System in the Spokane Valley.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

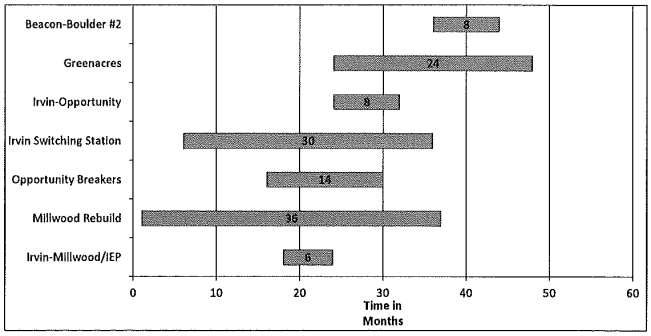
AVISTA

Investment Name:	Spokane Valley Transmission Reinforcement		
Requested Amount	$13,736,503	Assessments:	
Duration/Timeframe	5 Year Project	Financial:	Medium - >= 5% & <9% CIRR
Dept.., Area:	T&D - Substation & Transmission Engineering	Strategic:	Reliability & Capacity
Owner:	Heather Rosentrater	Operational:	Operations require execution to perform at current levels
Sponsor:	Don Kopczynski	Business Risk:	ERM Reduction >0 and <= 5
Category:	Project	Project/Program Risk:	High certainty around cost, schedule and resources
Mandate/Reg. Reference:	n/a	Assessment Score:	78.5

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The Spokane Valley Transmission Reinforcement Project includes rebuilding 4.4 miles of the Beacon - Boulder #2 115 kV Transmission Line, constructing the new Irvin Switching Station, rebuilding 1.75 miles of the Irvin - Opportunity 115 kV Tap, installing circuit breakers at Opportunity Substation, and constructing a new 2.2 mile 115 kV transmission line from Irvin to Millwood/IEP. The completion of these projects are required to mitigate existing and future performance and reliability issues of the Transmission System in the Spokane Valley.	Ability to serve load growth in area and provide operational flexibility to maintain equipment	$ 13,736,503	$ -	$ -	1

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo :	Heavy thermal loading (>90%) is projected to occur on local transmission lines in the near term planning horizon. Presently the Beacon - Boulder #2 Transmission Line cannot be taken out of service to be maintained/rebuilt due to operational constraints serving IEP's new synchronous motor load.	n/a	$ -	$ -	$ -	6
Alternative 1: Partial Transmission System Upgrades	Upgrade existing Transmission System by installing capacitor banks and rebuilding 115 kV transmission lines with 795 ACSS conductor. Further capital expenditures will be required going forward.	Thermal load reduced in near term planning horizon	$ 9,600,000	$ -	$ -	4
Alternative 2: Irvin Plan Minus IRV-MIL 115 kV Line	Construct all items in proposed Project except the new 115 kV transmission line from Irvin to Millwood/IEP. Ability to serve IEP is still constrained.	Thermal load reduced in near term planning horizon	$ 9,500,000	$ -	$ -	4
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ 40,559	$ -	$ -	$ 40,559
2012	$ 3,700,000	$ -	$ -	$ 3,700,000
2013	$ 4,150,000	$ -	$ -	$ 966,944
2014	$ 2,940,000	$ -	$ -	$ 1,820,000
2015	$ 1,500,000	$ -	$ -	$ 4,375,000
2016	$ -	$ -	$ -	$ 4,515,000
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
Future	$ -	$ -	$ -	$ -
Total	$ 12,330,559	$ -	$ -	$ 15,417,503

Milestones (high level targets)

January-12	Construct Irvin-Millwood/IEP 115 line	December-12	Complete construction (terminate Irvin end of line when Irvin is completed - 2014)
January-12	Rebuild Millwood Sub (not included in Project)	September-13	Complete rebuild
January-12	Build Irvin 115 kV Switching Station	December-16	Complete 115 kV Switching Station; Add Distribution later
January-12	Install breakers at Opportunity	December-14	Complete installation
January-13	Rebuild Irvin-Opportunity 115 kV line	December-13	Complete rebuild
January-13	Construct Greenacres Sub (not included in Project)	April-15	Complete construction
January-15	Rebuild Beacon-Boulder #2 115 kV line	December-15	Complete rebuild

Associated Ers (list all applicable):	1006	2001	2446	2474	2526	2552		

Mandate Excerpt (if applicable):

With continued load growth, violation of TPL-002, R1 (ability to supply projected customer demands under N-1 contingency conditions) will likely occur.

Additional Justifications:

In 2009, The Irvin Project report was reviewed and approved by stakeholders in the Engineering, Operations, and Planning Groups at Avista. A superior project, or collection of projects, was selected to mitigate existing and future performance and reliability issues of the Transmission System in the Spokane Valley. These projects, identified as Option 4a in The Irvin Project, and reiterated in the System Planning Interoffice Memorandum SP-2009-03 – Summary – Irvin (Spokane Valley Transmission Reinforcement) Project are illustrated in Project Diagram SP-0220 – Irvin Project. Further updates are provided in Interoffice Memorandum SP-2011-07 - Spokane Valley Transmission Reinforcement (Irvin Project). All documents are posted on Transmission System Planning SharePoint Site.

AVISTA

Capital Investment Business Case

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

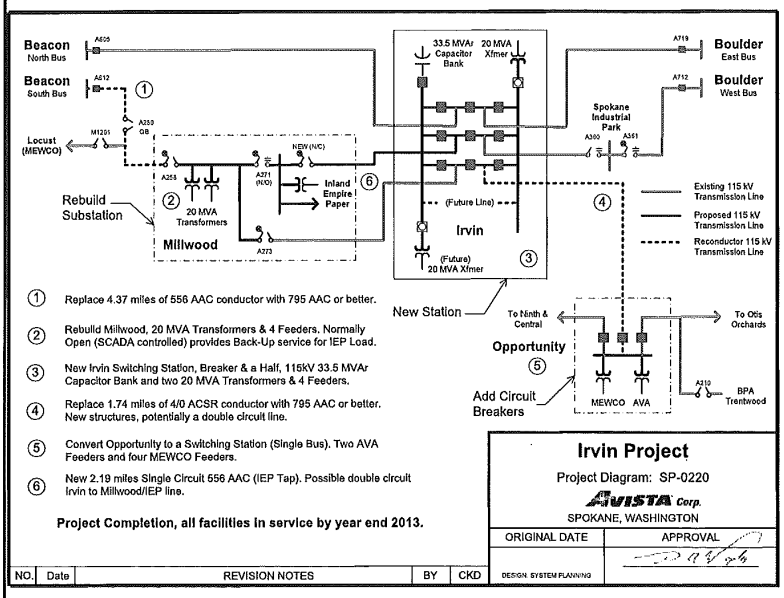
Prepared Mike Magruder/Ken Swelgart, T&D Substations/Transmission

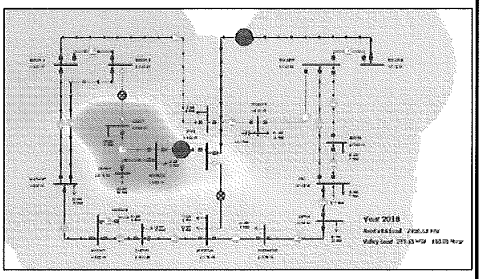
Reviewed Heather Rosentrater, Director - ENSO

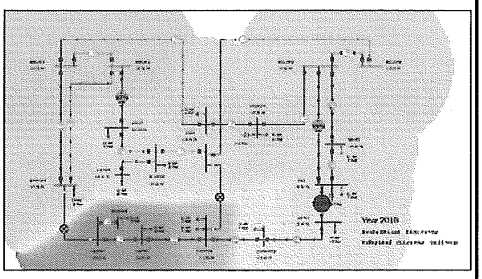
Reviewed Andy Vickers, Director - GPSS

Margi Stevens

Below is the approved Project Diagram for the "Irvin Project" and power simulation plot indicating thermal overload on transmission lines during specific outage scenarios







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Rationale for decision	Review Cycles 2012-2016	
	Date	Template

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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Clearwater Substation Upgrades

ER No: **ER Name:**
2571 Clearwater 115 kV Substation Upgrades

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,000 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	500	-	-	-	-	-	-	-	-	-	500	-	-
2016	500	-	-	-	-	-	-	-	-	-	500	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
Clearwater 115 kV Substation Upgrades. Several components in this station have reached their life cycle and need to be replaced. Some of the station components are non-standard and relatively unreliable. This project will upgrade the station by adding a 115 kV bus sectionalizing breaker and associated air switches on the section of bus between the two power transformers for better operational flexibility and restoration. This work includes construction of a 115 kV line terminal and relocation of 2 lines, upgrading metering, and adding SCADA. This is very difficult work in this particular station and this customer requires continued operation during construction. The protective relays and associated communication system will be upgraded to improve reliability of service.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

Investment Name:	**Clearwater Sub Upgrades**
Requested Amount	**$3,700,000**
Duration/Timeframe	4 Year Project
Dept.., Area:	T&D - Substations/Transmission
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	7.00%
Strategic:	Reliability & Capacity
Business Risk:	Business Risk Reduction >15
Project Risk:	High certainty around cost, schedule and resources
Assessment Score:	98

Recommend Project Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
Clearwater 115 kV Substation Upgrades. Several components in this station have reached their life cycle and need to be replaced. Some of the station components are non-standard and relatively unreliable. This project will upgrade the station by adding a 115 kV bus sectionalizing breaker and associated air switches on the section of bus between the two power transformers for better operational flexibility and restoration. This work includes construction of a 115 kV line terminal and relocation of 2 lines, upgrading metering, and adding SCADA. This is very difficult work in this particular station and this customer requires continued operation during construction. The protective relays and associated communication system will be upgraded to improve reliability of service.	better operational flexibility, improved system comms and metering	$ -	$ -	$ -	1

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	**Business Risk Score**
Unfunded Project:	The existing station is a single bus with "sliding link" air switches that are extremely dangerous to operate. A 115 kV fault in the station will shut down Clearwater Paper entirely until the problem can be fixed. Existing meters are obsolete and routinely cause problems.	n/a	$ 100,000	$ 50,000	$ 1,000,000	6
Alternative 1: Brief name of alternative (if applicable)	Several options were discussed with Clearwater Paper Co. The recommended project is what was agreed upon with Clearwater Paper to meet both parties' requirements. So, no other alternatives will be included with this Project Business Case.	describe any incremental changes in operations	$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ 700,000	$ -	$ -	$ 800,000
2014	$ 2,000,000	$ -	$ -	$ 1,300,000
2015	$ 500,000	$ -	$ -	$ 500,000
2016	$ 500,000	$ -	$ -	$ 500,000
2017+	$ -	$ -	$ -	$ -
Total	$ 3,700,000	$ -	$ -	$ 3,100,000

Associated Ers (list all applicable):			
2571			

ER	2013	2014	2015	2016	2017+	Total
2571	$ 700,000	$ 2,000,000	$ 500,000	$ 500,000	$ -	$ 3,700,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 700,000	$ 2,000,000	$ 500,000	$ 500,000	$ -	$ 3,700,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

In order to meet the aggressive milestones, business case approval is needed immediately so project funding can be secured to begin design and procurement. Schedule commitments with Clearwater Paper are challenging.

Milestones (high level targets)

March-13	Sub Design Begins	Spring-14	T-line Shoofly Const.	Spring-16	Upgrade Transformer re
June-13	UT2 - 34 kV Bkr Design xmitted	Summer-14	115 kV Bus Sect. Bkr. Const.	January-00	open
July-13	T-Line Design Begins	Fall-14	Commission Tie Breaker	January-00	open
September-13	UT2 - 34 kV Bkr Replaced	Winter-14	Upgrade SCADA	January-00	open
Winter-13	115 kV Sub Design	Spring-15	Upgrade Lolo 2 Relays	January-00	open
Spring-14	115 kV Bay Const. A-448	Fall-15	Upgrade N Lewiston Relays	January-00	open

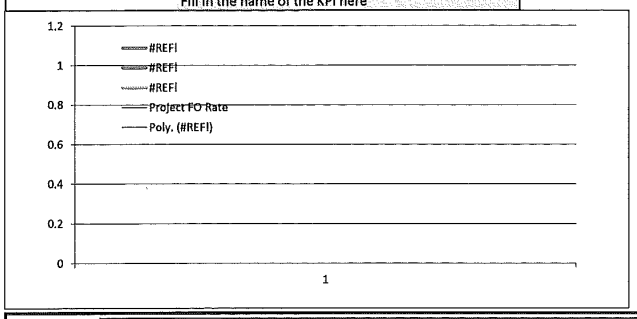
Milestones should be general. Use your judgement on project progress so that progress can be measured.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☐ Medium Probability	☑ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required	Capital Tools:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☐ YES	☑ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required	Fleet:	☐ YES - attach form	☑ NO or Not Required

AVISTA

Key Performance Indicator(s)	
Expected Performance Improvements	
KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here

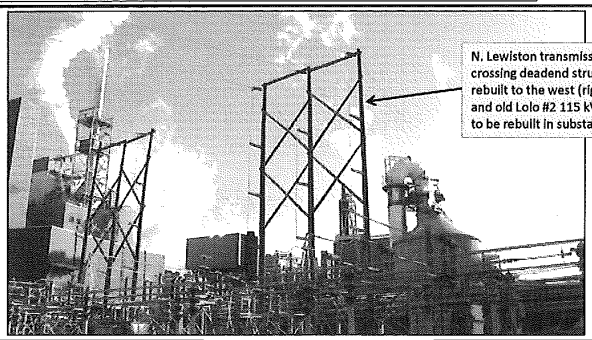


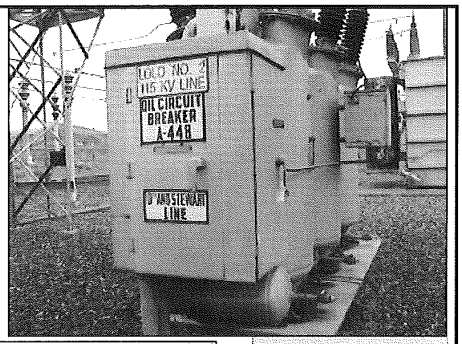
Prepared — Mike Magruder/Ken Sweigart, T&D Substations/Transmission

Reviewed — Heather Rosentrater, Director - ENSO

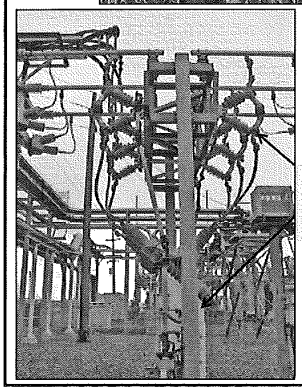
Reviewed — Andy Vickers, Director - GPSS

Reviewed (if necessary) — Margie Stevens, Director

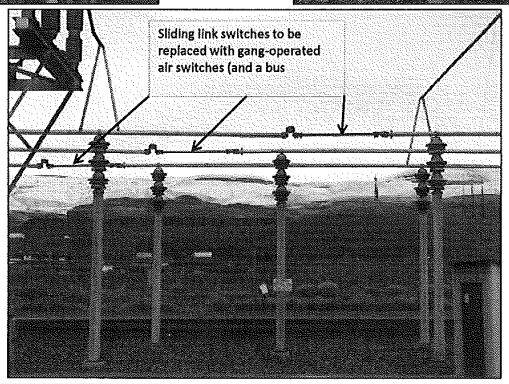




Oil Circuit Breaker A-448 to be replaced/moved to new 115 kV line terminal location west of



34 kV UT2 breaker and air switches to be replaced . 34 kV UT1 breaker and air



Sliding link switches to be replaced with gang-operated air switches (and a bus

To be completed by Capital Planning Group		
Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Street Light Management

ER No: **ER Name:**
2584 Street Light Conversion to LED Fixtures

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 4,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,500	133	124	123	124	125	123	133	122	123	124	125	122
2016	1,500	142	123	120	122	124	120	143	118	120	124	124	118
2017	1,500	142	123	120	122	124	120	143	118	120	124	124	118

Business Case Description:

Street Light Maintenance Program. This program is a 5 year planned replacement of bulbs and 10 year planned replacement of photocells.

Offsets:
We anticipate there will be annual O&M savings in beginning in 2015 in the amount of $468,000 and will increase to $722,000 in 2016; an incremental increase of $254,000 for 2016. The offsets result from the conversion from High Pressure Sodium to 100 Watt street lights. The savings come from the reduction in labor, equipment, material, and overhead costs associated with repairing older lights. We have included O&M Offsets of $468,000 ($165,160 ID) for 2015 and $254,000 ($89,640 ID) for 2016 in our Pro Forma adjustment.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**Street Light Management**		
Requested Amount	**$475,000**	**Assessments:**	
Duration/Timeframe	Indefinite 2014	Financial:	7.92%
Dept.., Area:	Operations	Strategic:	Life-cycle asset management
Owner:	Al Fisher	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Program Risk:	Moderate certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	n/a	Assessment Score:	89

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Street Light Maintenance Program. This program is a 5 year planned replacement of bulbs and 10 year planned replacement of photocells. This alternative has the starterboards running to failure.	7.92%	$ 475,000	$ (250,000)	$ (750,000)	8

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program: Continue maintaining the street lights as failures occur	The lights are currently maintained based on customer feedback and/or due to being noticed by an Avista employee. Many street lights are out for long periods of time which can put us at risk. We also spend a large amount of time driving from issue to issue.	6.29% 2 - S3 event in 10 years	$ -	$ 1,500,000	$ 1,800,000	16
Alternative 1:	Street Light Maintenance Program. This program is a 5 year planned replacement of bulbs and 10 year planned replacement of photocells. This alternative has the starterboards running to failure.	7.92% 1.5 - S3 event in 10 years	$ 475,000	$ (250,000)	$ (750,000)	8
Alternative 2:	Street Light Maintenance Program. This program is a 5 year planned replacement of bulbs and starterboards and a 10 year planned replacement of photocells.	7.28% 1 - S3 event in 10 years	$ 890,000	$ (250,000)	$ (1,175,000)	12
Alternative 3:	Street Light Maintenance Program. This program is a 5 year planned replacement of bulbs and a 10 year planned replacement of photocells and starterboards.	7.82% 1 - S3 event in 10 years	$ 895,000	$ (250,000)	$ (1,165,000)	12

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 475,000	$ (250,000)	$ -	$ -
2015	$ 484,500	$ (500,000)	$ -	$ 1,500,000
2016	$ 494,190	$ (750,000)	$ -	$ 1,500,000
2017	$ 504,074	$ (1,000,000)	$ -	$ 1,500,000
2018	$ -	$ -	$ -	$ 1,500,000
2019	$ -	$ -	$ -	$ 1,500,000

Associated Ers (list all applicable):			
New ER			

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http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Street Light Management

Capital Program Business Case

AVISTA

2019	$ -	$ -	$ -	$ 1,500,000
Total	$ 1,957,764	$ (2,500,000)	$ -	$ 7,500,000

ER	2013	2014	2015	2016	2017	Total
New ER	$ -	$ 475,000	$ 484,500	$ 494,190	$ 504,074	$ 1,957,764
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 475,000	$ 484,500	$ 494,190	$ 504,074	$ 1,957,764

Mandate Excerpt (if applicable):

Additional Justifications:

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity
Contract Labor: ☐ YES ☑ NO

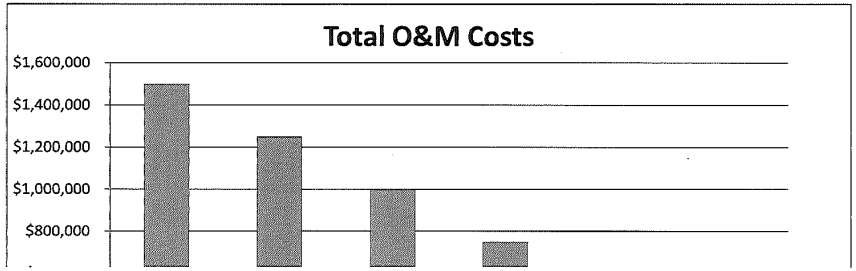
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Monitoring the OM spending on street lights
	Monitor the number of lights maintained per year



Prepared _____

Reviewed _____
Director/Manager

Other Party Review Margie Stevens

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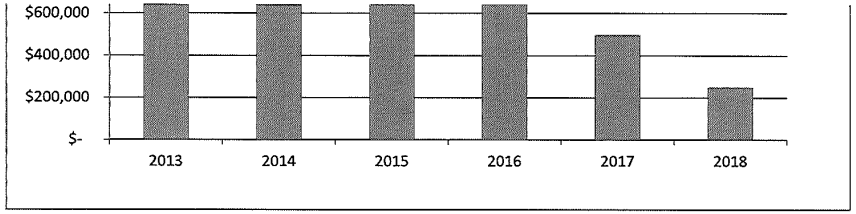
Capital Program Business Case



(if necessary) _____ Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles
	2012-2016

Capital Program Business Case

Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Noxon Switchyard Rebuild

ER No: **ER Name:**
2532 Noxon 230 kV Substation - Rebuild

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 15,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	8,325	-	-	-	-	-	-	-	-	7,800	-	-	525
2016	500	-	-	-	-	-	-	-	-	-	-	-	500
2017	7,700	-	-	-	-	-	-	-	-	-	6,000	-	1,700

Business Case Description:
The existing Noxon Rapids 230 kV Switchyard requires reconstruction due to the present age and condition of the equipment in the station. The existing bus is constructed as strain bus (which has suffered a number of recent failures) and is configured as a single bus with a tiebreaker separating the East and West buses. The station is the interconnection point of the Noxon Rapids Hydroelectric development as well as a principal interconnection point between Avista and BPA, and as such is a significant asset in the reliable operation of the Western Montana Hydro Complex. Equipment outages within the Station (planned or unplanned) can cause significant curtailments of the local generation output. Due to the significance of the station, a complete rebuild will require coordination with Avista's Energy Resources Department and neighboring utilities, primarily BPA. The Noxon Switchyard Rebuild Project is proposed to be a Greenfield Double Bus Double Breaker 230 kV switching station to replace the existing Noxon Switchyard.

Offsets:
There are no anticipated offsets with this business case.

[1]The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Investment Business Case

AVISTA

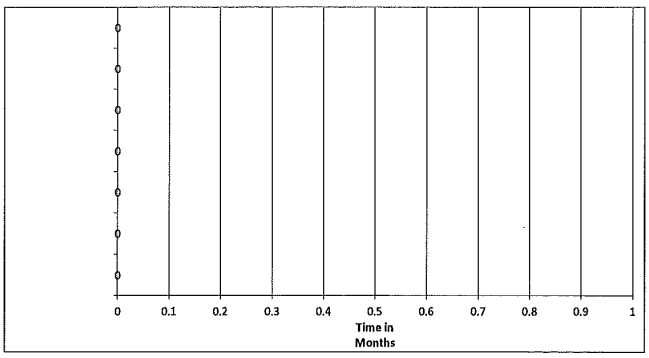
Investment Name:	Noxon Switchyard Rebuild
Requested Amount	$24,950,000
Duration/Timeframe	8 Year Project
Dept.., Area:	T&D - Substation & Transmission Engineering
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:	
Financial:	Medium - >= 5% & <9% CIRR
Strategic:	Reliability & Capacity
Operational:	Operations require execution to perform at current levels
Business Risk:	ERM Reduction >0 and <= 5
Project/Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	79

Recommend Project Description:	Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The existing Noxon Rapids 230 kV Switchyard requires reconstruction due to the present age and condition of the equipment in the station. The existing bus is constructed as strain bus (which has suffered a number of recent failures) and is configured as a single bus with a tie breaker separating the East and West buses. The station is the interconnection point of the Noxon Rapids Hydro Electric Dam as well as a principal interconnection point between Avista and BPA, and as such is a significant asset in the reliable operation of the Western Montana Hydro Complex. Equipment outages within the Station (planned or unplanned) can cause significant curtailments of the local generation output. Due to the significance of the station, a complete rebuild will require coordination with Avista's Energy Resources Department and neighboring utilities, primarily BPA. The Noxon Switchyard Rebuild Project is proposed to be a greenfield Double Bus Double Breaker 230 kV switching station to replace the existing Noxon Switchyard.	Improve station reliability by replacing end of life equipment. Improve equipment capacity ratings where possible.	$ 24,950,000	$ -	$ -	1

Alternatives:		Performance	Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Status Quo:	The existing Noxon Switchyard will continue to present reliability concerns. Outages caused by equipment failure could cause curtailment of generation and reduced interconnection capacity with neighboring utilities.	n/a	$ -	$ -	$ -	6
Alternative 1:	Replace end of life equipment and strain bus in existing station. This still leaves the station as a single bus, which does not improve single contingency outage possibilities as well as other bus configurations would. Installation of voltage control (reactors) would still be required.		$ 8,500,000	$ -	$ -	0
			$ -	$ -	$ -	0
			$ -	$ -	$ -	0

Timeline



Construction Cash Flows (CWIP)

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2012	$ -	$ -	$ -	$ 150,000
2013	$ 400,000	$ -	$ -	$ 400,018
2014	$ 2,525,000	$ -	$ -	$ 4,425,000
2015	$ 5,475,000	$ -	$ -	$ 7,300,000
2016	$ 3,000,000	$ -	$ -	$ 3,000,000
2017	$ 4,200,000	$ -	$ -	$ 5,200,000
2018	$ 4,200,000	$ -	$ -	$ 5,200,000
2019	$ -	$ -	$ -	$ 4,200,000
Future	$ 5,000,000	$ -	$ -	$ -
Total	$ 24,800,000	$ -	$ -	$ 29,875,018

Milestones (high level targets)

Jan-Dec 2012	Plan/Scope Project; Initiate Permitting	April-16 - Oct-16	Construction of new station; Line Construction
Jan-Dec 2013	Finalize Scope Options; Process Permitting	April-17 - Oct-17	Construction of new station; Line Construction/Termination
April-14	Receive Permit	April-18 - Oct-18	Construction of new station; Line Construction/Termination/BPA Construction
April-14 - Dec-15	Construct Reactor Station & 230 kV Connection	April-19 - Oct-19	Construction of new station; Line Construction/Termination/BPA Construction
April-14 - Dec-15	Upgrade Strain bus and bus switches in old sub	April-20 - Oct-20	Construction of new station; Line Construction/Termination/BPA Construction
Jan-15 - Dec-15	Design rest of new station; replace old breakers	April-20 - Oct-20	Remove & Salvage old station
April-15 - Oct-15	Construction of new station		

Associated Ers (list all applicable): 2532

Mandate Excerpt (if applicable):

Additional Justifications:

The existing station has not had equipment upgrades since 2007 due to projected plans for a station rebuild. With the decision to pursue a full station upgrade in a new location, the time it will take to construct this new station will require the old station to remain in operation until at least 2020 by current estimates. It has been decided to replace some of the existing equipment to afford safe and reliable operation of the existing station while the new station is constructed.

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C:\Users\vf9457\Desktop\Business Cases\Noxon Switchyard Rebuild Project Business Case and Review

Capital Investment Business Case

AVISTA

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

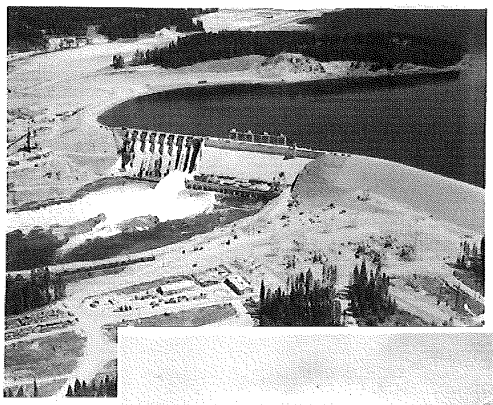
KPI Measure:	Complete Reactor Yard/minor station upgrades in 2015.
	Complete remainder of station as time/budget allows.

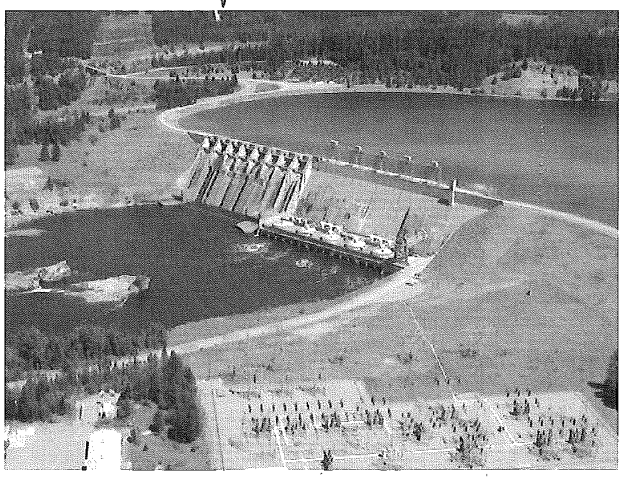
Prepared Mike Magruder/Ken Sweigart, T&D - Substations/Transmission

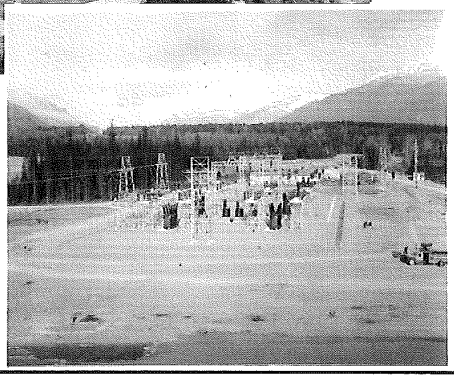
Reviewed Heather Rosentrater, Director - ENSO

Reviewed Andy Vickers, Director - GPSS

Margie Stevens







Above: recent picture of the Noxon HED and Switchyard
Left: Pictures of Noxon Hed and Switchyard shortly after orginal construction - 1956

Planning and Design Scoping Documents are available upon request.

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Transmission - Asset Management

ER No:	**ER Name:**
2057	Transmission Minor Rebuild
2254	System 115kV Air Switch Upgrade

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 5,262 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,709	67	67	96	96	197	197	197	216	216	216	82	63
2016	1,772	9	9	62	62	248	248	248	284	284	284	35	(0)
2017	1,780	9	9	62	62	249	249	249	285	285	285	36	-

Business Case Description:
The Transmission Asset Management Business Cases represent the mitigation Minor Rebuild (ER 2057) work associated with Avista Aerial Patrol and Wood Pole Management programs developed to comply with NERC Standard FAC-501-WECC-1, and Air Switch Replacements (ER 2254) made on a condition and age evaluation.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	**Trans Asset Man**		
Requested Amount	**$1,400,000**	**Assessments:**	
Duration/Timeframe	Indefinite Year Program	Financial:	10.00%
Dept.., Area:	T&D - TLD Engineering	Strategic:	Life-cycle asset management
Owner:	Heather Rosentrater	Business Risk:	Business Risk Reduction >0 and <= 5
Sponsor:	Don Kopczynski	Program Risk:	High certainty around cost, schedule and resources
Category:	Program		
Mandate/Reg. Reference:	WECC Standard FAC-501-WECC-1	Assessment Score:	84

Recommend Program Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
The Transmission Asset Management Business Case covers the follow-up work to the Wood Pole Inspection in ER 2057, and Air Switch Replacements in ER 2254.	Customer IRR of 8.9%	$ 1,400,000	$ 331,000	$ -	12

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Without replacing old and worn-out poles and cross-arms, our system will be increasing at risk for more failures and more risk of a major fire. As time moves forward, the number of failures and risk of a major fire will increase and increase the difference in costs between the two alternatives.	Higher risk of a transmission line causing a major fire due to pole or crossarm failures	$ 3,464,530	$ -	$ 1,576,000	15
Alternative 1: Brief name of alternative (if applicable)	Replace wood poles and cross-arms identified by inspection and when a significant portion of the transmission line has reached the end of life for the majority of the poles, replace the transmission structures under a larger project. This also covers replacing Transmission Air Switches located outside of the substations that have reached their end of life. For major rebuilds, new conductors would increase the capacity of the system and help reduce transmission losses	Customer IRR of 8.9% and avoids about 580 events per year	$ 4,205,000	$ 331,000	$ -	12
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 1,315,000	$ 331,823	$ -	$ 3,790,000
2015	$ 1,370,000	$ 339,455	$ -	$ 1,709,455
2016	$ 1,425,000	$ 347,262	$ -	$ 1,772,262
2017	$ 1,425,000	$ 355,249	$ -	$ 1,780,249
2018	$ 1,480,000	$ 363,420	$ -	$ 1,843,420
2019	$ 1,530,000	$ 378,117	$ -	$ 1,908,117
Total	$ 8,545,000	$ 2,115,326	$ -	$ 12,803,503

Associated Ers (list all applicable):			
2057	2254		

ER	2014	2015	2016	2017	2018	Total
2057	$ 1,431,823	$ 1,489,455	$ 1,547,262	$ 1,555,249	$ 1,613,420	$ 7,637,209
2254	$ 215,000	$ 220,000	$ 225,000	$ 225,000	$ 230,000	$ 1,115,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 1,646,823	$ 1,709,455	$ 1,772,262	$ 1,780,249	$ 1,843,420	$ 8,752,209

Mandate Excerpt (if applicable):

The majority of this Program is mandated under NERC Standards FAC-501-WECC-1. Failure to comply with standard could result in large financial penalties.

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probability	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here

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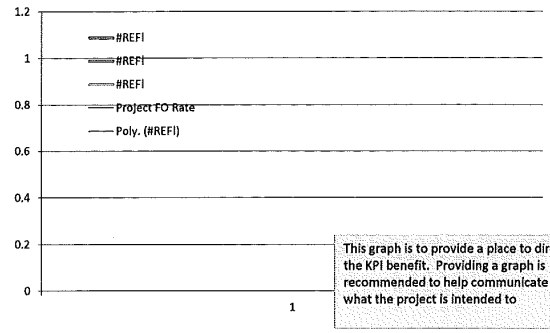
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Transmission - Asset Management

Capital Program Business Case

AVISTA



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

Prepared signature

Reviewed signature
Director/Manager

Other Party Review (if necessary) signature Margi Stevens
Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Revlew Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Transmission - NERC Low Priority Mitigation

ER No: **ER Name:**
2579 Low Priority Ratings Mitigation

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 5,500 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	500	-	-	-	-	-	-	-	-	-	-	-	500
2016	2,000	-	-	-	-	-	-	-	-	-	-	-	2,000
2017	3,000	-	-	-	-	-	-	-	-	-	-	-	3,000

Business Case Description:
This program reconfigures insulator attachments, and/or rebuilds existing transmission line structures, or removes earth beneath transmission lines in order to mitigate ratings/sag discrepancies found between "design" and "field" conditions as determined by LiDAR survey data. This program was undertaken in response to the October 7, 2012 North American Electric Reliability Corporations (NERC) "NERC Alert" - Recommendation to Industry, "Consideration of Actual Field Conditions in Determination of Facility Ratings". This Capital Program (ER25xx) covers mitigation work on Avista's "Low Priority" 230kV and 115kV transmission lines. Mitigation brings lines in compliance with the National Electric Safety Code (NESC) minimum clearances values. These code minimums have been adopted into the State of Washington's Administrative Code (WAC).

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

AVISTA

Investment Name:	NERC Low Priority Mit
Requested Amount	$1,500,000
Duration/Timeframe	4 Year Program
Dept.., Area:	TLD Engineering
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	October 7, 2010 "NERC Alert" w/r Facility Ratings

Assessments:	
Financial:	9.00%
Strategic:	Reliability & Capacity
Business Risk:	Business Risk Reduction >10 and <= 15
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	104

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program reconconfigures insulator attachments, and/or rebuilds existing transmission line structures, or removes earth beneath transmission lines in order to mitigate ratings/sag discrepancies found between "design" and "field" conditions as determined by LiDAR survey data. This program was undertaken in response to the October 7, 2012 North American Electric Reliability Corporations (NERC) "NERC Alert" - Recommendation to Industry, "Consideration of Actual Field Conditions in Determination of Facility Ratings". This Capital Program (ER25xx) covers mitigation work on Avista's "Low Priority" 230kV and 115kV transmission lines. Mitgation brings lines in compliance with the National Electric Safety Code (NESC) minimum clearances values. These code minimums have been adopted into the State of Washington's Administrative Code (WAC).	Regulatory compliance, upgraded facilities, greater clearance, and (in some cases) greater load capabilities.	$ 1,500,000	$ -	$ -	1

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	The unfunded ("do nothing") approach would place Avista at odds with NERC recommendations, and increase the potential for large fines for any outage and/or incident connected with line clearance. Additionally, failure to mitigate would place Avista in violation of NESC code standards and the WAC.	Relatively high probability of fines and legal action against Avista.	$ -	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 250,000	$ -	$ -	$ 1,190,000
2015	$ 500,000	$ -	$ -	$ 500,000
2016	$ 2,500,000	$ -	$ -	$ 2,000,000
2017	$ 2,500,000	$ -	$ -	$ 3,000,000
Total	$ 5,750,000	$ -	$ -	$ 6,690,000

Associated Ers (list all applicable):			
2579			

ER	2013	2014	2015	2016	2017	Total
2579	$ -	$ 250,000	$ 500,000	$ 2,500,000	$ 2,500,000	$ 5,750,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 250,000	$ 500,000	$ 2,500,000	$ 2,500,000	$ 5,750,000

Mandate Excerpt (if applicable):

Regulatory: Specific transmission lines require modfication/rebuild for increased line clearance.
Risk Management: Specific transmission lines require rebuild to reduce potential public injury risks.

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

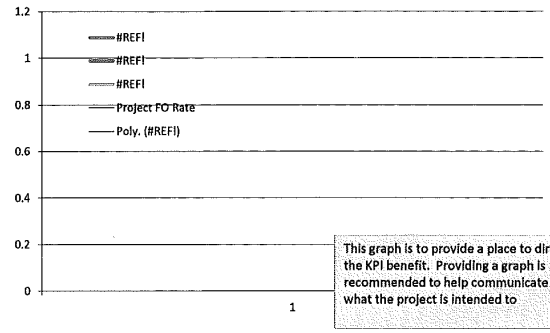
Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

Capital Program Business Case

AVISTA



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review signature Margi Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-08-2015
C:\Users\rf9457\Desktop\Indexed Business Cases For KKS-5\New folder\ETD-30 - Update - Transmission - NERC Low Priority Lines Mitigation Work

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Transmission - NERC Medium Priority Mitigation

ER No: **ER Name:**
2581 Medium Priority Ratings Mitigation

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 5,545 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	3,294	-	-	-	-	-	-	-	-	-	-	-	3,294
2016	2,251	-	-	-	-	-	-	-	-	-	-	-	2,251
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
This program reconfigures insulator attachments, and/or rebuilds existing transmission line structures, or removes earth beneath transmission lines in order to mitigate ratings/sag discrepancies found between "design" and "field" conditions as determined by LiDAR survey data. This program was undertaken in response to the October 7, 2012 North American Electric Reliability Corporations (NERC) "NERC Alert" - Recommendation to Industry, "Consideration of Actual Field Conditions in Determination of Facility Ratings". This Capital Program (ER2581) covers mitigation work on Avista's "Medium Priority" 230kV and 115kV transmission lines, including North Lewiston-Shawnee 230kV, Beacon-Bell #4 230kV, Beacon-Bell #5 230kV, Noxon-Hot Springs #2 230kV, Beacon-Boulder #2 115kV, Beacon-Francis & Cedar 115kV, 9th & Central-Otis 115kV, Northwest-Westside 115kV, Dry Creek-Talbot 230kV, Walla Walla-Wanapum 230kV, Benewah-Moscow 230kV, Devils Gap-Stratford 115kV. Mitigation brings lines in compliance with the National Electric Safety Code (NESC) minimum clearances values. These code minimums have been adopted into the State of Washington's Administrative Code (WAC).

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**NERC Med Priority Mit**
Requested Amount	**$2,500,000**
Duration/Timeframe	2 Year Program
Dept.., Area:	TLD Engineering
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	October 7, 2010 "NERC Alert" w/r Facility Ratings

Assessments:

Financial:	9.00%
Strategic:	Reliability & Capacity
Business Risk:	Business Risk Reduction >10 and <= 15
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	104

Recommend Program Description:

This program reconconfigures insulator attachments, and/or rebuilds existing transmission line structures, or removes earth beneath transmission lines in order to mitigate ratings/sag discrepancies found between "design" and "field" conditions as determined by LiDAR survey data. This program was undertaken in response to the October 7, 2012 North American Electric Reliability Corporations (NERC) "NERC Alert" - Recommendation to Industry, "Consideration of Actual Field Conditions in Determination of Facility Ratings". This Capital Program (ER25xx) covers mitigation work on Avista's "Medium Priority" 230kV and 115kV transmission lines, including North Lewiston-Shawnee 230kV, Beacon-Bell #4 230kV, Beacon-Bell #5 230kV, Noxon-Hot Springs #2 230kV, Beacon-Boulder #2 115kV, Beacon-Francis & Cedar 115kV, 9th & Central-Otis 115kV, Northwest-Westside 115kV, Dry Creek-Talbot 230kV, Walla Walla-Wanapum 230kV, Benewah-Moscow 230kV, Devils Gap-Stratford 115kV. Mitgation brings lines in compliance with the National Electric Safety Code (NESC) minimum clearances values. These code minimums have been adopted into the State of Washington's Administrative Code (WAC).

Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Regulatory compliance, upgraded facilities, greater clearance, and (in some cases) greater load capabilities.	$ 2,500,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	The unfunded ("do nothing") approach would place Avista at odds with NERC recommendations, and increase the potential for large fines for any outage and/or incident connected with line clearance. Additionally, failure to mitigate would place Avista in violation of NESC code standards and the WAC.	Relatively high probability of fines and legal action against Avista.	$ -	$ -	$ -	16
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 1,693,000	$ -	$ -	$ 1,731,000
2015	$ 3,294,000	$ -	$ -	$ 3,294,000
2016	$ -	$ -	$ -	$ 2,251,000
2017	$ -	$ -	$ -	$ -
Total	$ 4,987,000	$ -	$ -	$ 7,276,000

Associated Ers (list all applicable):

2581			

ER	2013	2014	2015	2016	2017	Total
2581	$ -	$ 1,693,000	$ 3,294,000	$ -	$ -	$ 4,987,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 1,693,000	$ 3,294,000	$ -	$ -	$ 4,987,000

Mandate Excerpt (if applicable):

Regulatory: Specific transmission lines require modfication/rebuild for increased line clearance.
Risk Management: Specific transmission lines require rebuild to reduce potential public injury risks.

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability:	☐ Low Probability	☑ Medium Probability	☐ High Probablity	Enterprise Tech:	☐ YES - attach form	☑ NO or Not Required
Contract Labor:	☑ YES	☐ NO		Facilities:	☐ YES - attach form	☑ NO or Not Required
				Capital Tools:	☐ YES - attach form	☑ NO or Not Required
				Fleet:	☐ YES - attach form	☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

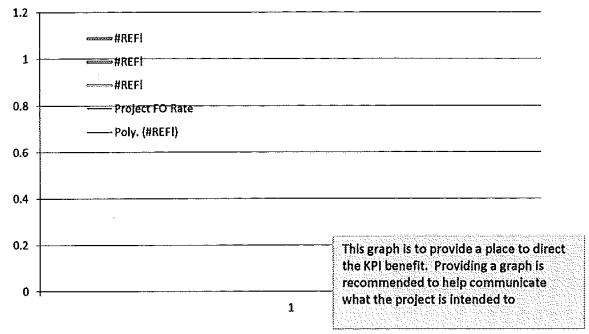
Key Performance Indicator(s)

Expected Performance Improvements

Capital Program Business Case

AVISTA

Fill In the name of the KPI here



This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

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Director/Manager

Other Party Review signature Margie Stevens
(if necessary) Director/Manager

This space is to be used for photographs, charts, or other data that may be useful in evaulating the Program

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 01-08-2015
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AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: SCADA - System Operations & Backup Control Center

ER No: **ER Name:**
2277 SCADA Upgrade

Approved Business Case Spend Amount 2015-2017 ($000s - System): $3,066 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	1,020	85	85	85	85	85	85	85	85	85	85	85	85
2016	1,002	83	83	84	83	83	84	83	83	84	83	83	84
2017	1,044	87	87	87	87	87	87	87	87	87	87	87	87

Business Case Description:
This program replaces and/or upgrades existing electric and gas control center telecommunications and computing systems as they reach the end of their useful lives, require increased capacity, or cannot accommodate necessary equipment upgrades due to existing constraints. Included are hardware, software, and operating system upgrades, as well as deployment of capabilities to meet new operational standards and requirements. Some system upgrades may be initiated by other requirements, including NERC reliability standards, growth, and external projects (e.g. Smart Grid). Examples of upgrades to be completed under this program are Critical Infrastructure Protection version 5 (NERC requirement), Gas Control Room Management (PHMSA requirement), WECC RC Advanced Applications, and Technology Refresh (network and storage).

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Program Business Case

Investment Name:	**SCADA - SOO and BUCC**
Requested Amount	**Average capital amt 2013-18 is $986,500**
Duration/Timeframe	20 Year Program
Dept.., Area:	T&D - SCADA - System Operations
Owner:	Craig Figart/Brad Calbick/Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Program
Mandate/Reg. Reference:	WECC/NERC/FERC

Assessments:	
Financial:	7.00%
Strategic:	Reliability & capacity
Business Risk:	Business Risk Reduction >5 and <= 10
Program Risk:	High certainty around cost, schedule and resources
Assessment Score:	81

Recommend Program Description:	**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
This program replaces and/or upgrades existing electric and gas control center telecommunications and computing systems as they reach the end of their useful lives, require increased capacity, or cannot accommodate necessary equipment upgrades due to existing constraints. Included are hardware, software, and operating system upgrades, as well as deployment of capabilities to meet new operational standards and requirements. Some system upgrades may be initiated by other requirements, including NERC reliability standards, growth, and external projects (e.g. Smart Grid). Examples of upgrades to be completed under this program are Critical Infrastructure Protection version 5 (NERC requirement), Gas Control Room Management (PHMSA requirement), WECC RC Advanced Applications, and Technology Refresh (network and storage).	Improved performance, upgraded equipment, better status & control, new life cycle.	$ 1,036,000	$ 473,926	$ -	2

Alternatives:		**Performance**	**Annual Cost Summary - Increase/(Decrease)** Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Program:	Non-compliant operational capabilities and practices would result in negative audit findings, financial penalties, and litigation expenses. Obsolete equipment would remain in service until failure. Additional capacity for growth may or may not be suitable for required expansions to meet other (e.g. Regulatory, SGIG) needs.	Severe negative system reliability and compliance	$ -	$ 100,000	$ 500,000	12
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	2
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2014	$ 1,090,500	$ -	$ -	$ 1,028,500
2015	$ 1,020,000	$ 473,926	$ -	$ 1,020,000
2016	$ 1,002,000	$ 487,158	$ -	$ 1,002,000

Associated Ers (list all applicable):			
2277			

Capital Program Business Case

AVISTA

2017	$ 1,044,000	$ 503,915	$ -	$ 1,044,000
2018	$ 920,000	$ 518,323	$ -	$ 920,000
2019	$ 1,013,000	$ 533,317	$ -	$ 1,013,000
2020+	$ 920,000	$ 548,312	$ -	$ -
Total	$ 7,009,500	$ 3,064,951	$ -	$ 6,027,500

ER	2015	2016	2017	2018	2019	Total
2277	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
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0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -

Mandate Excerpt (if applicable):

NERC reliability standards are being continually changed. New and changed standards are expected which will address emergency operations, transmission operations, critical infrastructure protection, communications, and balancing authority operations. Gas Control Room Management

Additional Justifications:

This program replaces and/or upgrades existing control center telecommunications and computing systems for a number of reasons including, end of useful life, increased capacity requirements, and new operational and regulatory requirements. Cuts to this program need to be closely evaluated to assure that reliable and compliant operations are not impacted.

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity

Contract Labor: ☐ YES ☑ NO

Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required

Facilities: ☐ YES - attach form ☑ NO or Not Required

Capital Tools: ☐ YES - attach form ☑ NO or Not Required

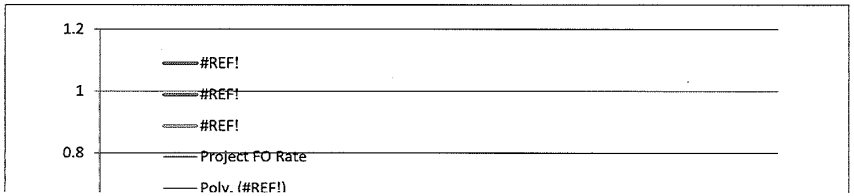
Fleet: ☐ YES - attach form ☑ NO or Not Required

Check the appropriate box. The internal and contract labor boxes should be checked to indicate if the resource owners have been contacted and to provide a general sense of how likely staff will be provided (this does not require a firm committment).

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



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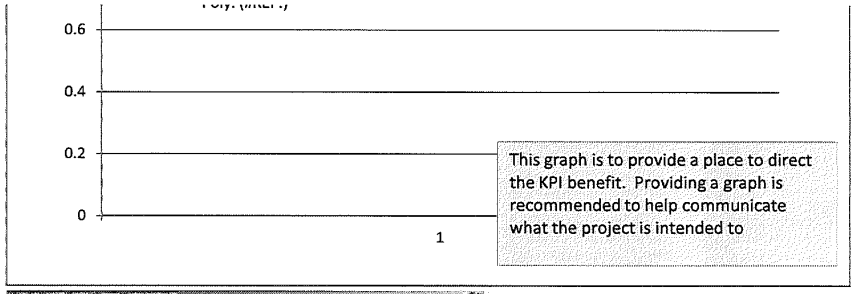
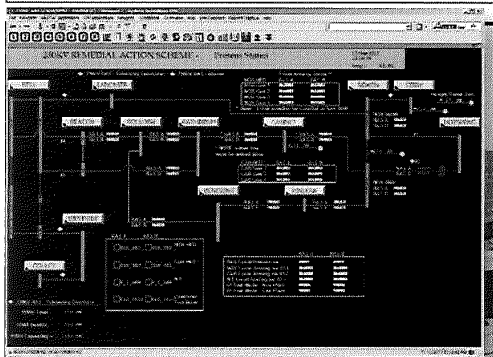
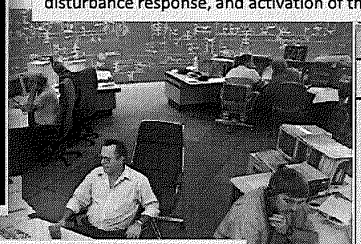
AVISTA



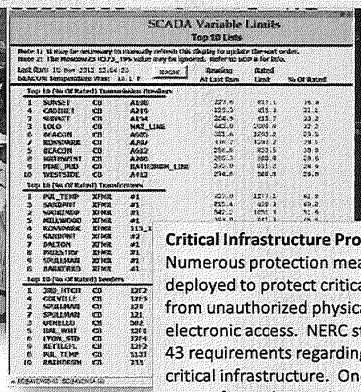
This graph is to provide a place to direct the KPI benefit. Providing a graph is recommended to help communicate what the project is intended to

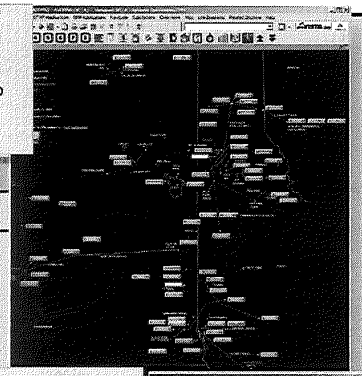
Other Party Review signature Margie Stevens
(if necessary) Director/Manager



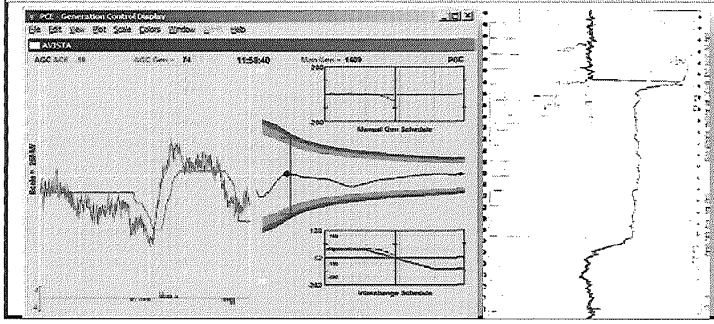


Transmission Operations – Certified System Operators monitor system conditions round-the-clock. They perform switching operations, maintain system voltage, and respond to abnormal conditions. Constant communication occurs with neighboring systems and regional authorities to assure system reliability. Operators are trained to respond to emergency situations such as black start restoration, load shedding, disturbance response, and activation of the Backup Control Center.

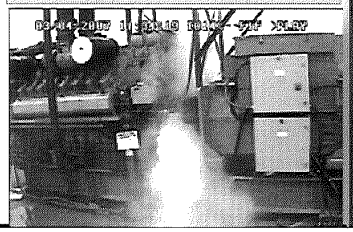


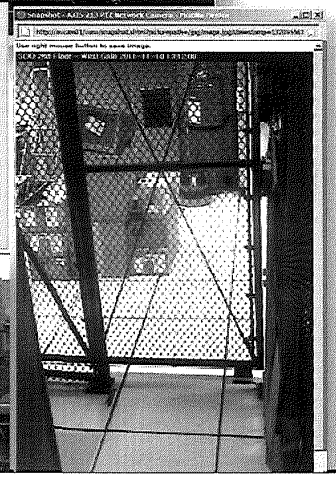


Balancing Authority – To maintain the balance between load, interchange, and generation, automated calculations occur every four seconds which determine our megawatt obligation based on our customer load, contracted purchase & sales, and the system frequency at that instant. Controls are automatically issued to generators to adjust generation to meet our obligation. Control algorithms are optimized to minimize



Critical Infrastructure Protection – Numerous protection measures are deployed to protect critical systems from unauthorized physical and electronic access. NERC standards have 43 requirements regarding protection of critical infrastructure. Onerous audits are performed every 3 years. Potentially significant financial penalties result from any instances of non-





Capital Program Business Case

AVISTA

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: South Region Voltage Control

ER No: **ER Name:**
2580 South Region Transmission Voltage Control

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 4,900 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	4,900	-	-	-	-	-	-	4,900	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:
Avista's south region 230 kV transmission lines, primarily around Lewiston-Clarkston, experience excessive high voltage during light load periods. Voltages exceed equipment ratings over 35% of the time. Operation of equipment outside of equipment ratings imposes potential legal and regulatory risks to the Company on top of increasing large scale outage possibilities. The ability to control MVAR flow at our BPA interconnection will also reduce power factor penalty charges. The expected IRR, including effects, is 6.38%. With automatic control, existing overvoltages can be reduced, if not eliminated, on the 230kV buses at Dry Creek, Lolo, and N.Lewiston, as well as Moscow and Shawnee.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

AVISTA

Capital Project Business Case

Investment Name:	S. Region Voltage Ctrl
Requested Amount	$5,500,000
Duration/Timeframe	2 Year Project
Dept.., Area:	Substation Engineering
Owner:	Heather Rosentrater
Sponsor:	Don Kopczynski
Category:	Project
Mandate/Reg. Reference:	n/a

Assessments:

Financial:	7.00%
Strategic:	Life-cycle asset management
Business Risk:	Business Risk Reduction >5 and <= 10
Project Risk:	High certainty around cost, schedule and resources
Assessment Score:	94

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Avista's south region 230 kV, primarily around Lewiston-Clarkston, experiences excessive high voltage during light load periods. Voltages exceed equipment ratings over 35% of the time. Operation of equipment outside of equipment ratings imposes potential legal and regulatory risks to the Company on top of increasing large scale outage possibilities. The ability to control MVAR flow at our BPA interconnection will also reduce power factor penalty charges. The expected IRR, including effects, is 6.38%. With automatic control, existing overvoltages can be reduced, if not eliminated, on the 230kV buses at Dry Creek, Lolo, and N.Lewiston, as well as Moscow and Shawnee.	Control of overvoltages in the south region	$ 5,702,511	$ 13,809	$ 351,822	4

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Voltage currently exceeds equipment rated voltage over 35% of the time, resulting in legal and even regulatory risks. The company incurs BPA leading power factor charges at the Hatwai interconnection. Estimated IRR, including effects, is 7.65 %.	n/a	$ 438,469	$ 55,526	$ 361,996	12
Alternative 1: South region reactor station	The project, as proposed by Transmission Operations, would consist of two 50 MVAR reactor banks, similar to the proposed Noxon project.	Capability to compensate for transmission capacitance	$ 5,702,511	$ 13,809	$ 351,822	4
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name : Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ 3,500,000	$ -	$ -	$ -
2015	$ 2,000,000	$ -	$ -	$ 900,000
2016	$ -	$ -	$ -	$ 4,000,000
2017+	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ 4,900,000

Associated Ers (list all applicable):

2580			

ER	2013	2014	2015	2016	2017+	Total
2580	$ -	$ 3,500,000	$ 2,000,000	$ -	$ -	$ 5,500,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 3,500,000	$ 2,000,000	$ -	$ -	$ 5,500,000

Mandate Excerpt (if applicable):

provide brief citation of the law or regulation and a reference number if possible

Additional Justifications:

Any supplementary information that may be useful in describing in more detail the nature of the Project, the urgency, etc.

Milestones (high level targets)

January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open
January-00	open	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

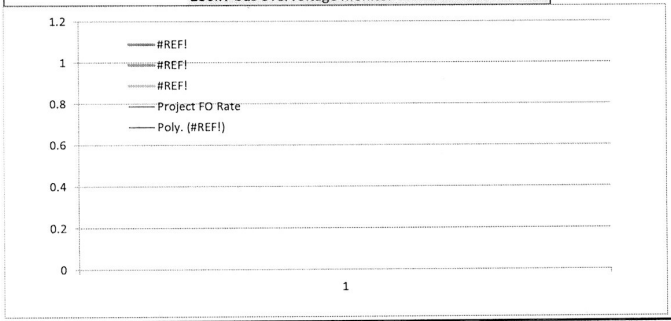
Internal Labor Availability: ☐ Low Probability ☑ Medium Probability ☐ High Probablity
Contract Labor: ☐ YES ☑ NO
Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required
Facilities: ☐ YES - attach form ☑ NO or Not Required
Capital Tools: ☐ YES - attach form ☑ NO or Not Required
Fleet: ☐ YES - attach form ☑ NO or Not Required

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	South region 230kV buses are not to exceed overvoltage, with the reactors in service and under automatic control
	230kV bus overvoltage monitor



Prepared Mike Magruder, T&D - Substation Engineering Mgr.

Reviewed Heather Rosentrater, Director - ENSO

Other Party Review (if necessary) Margie Stevens Director/Manager

Reference Document: April 9, 2013 Memo from Dean Spratt/Rip Divis to Substation Engineering
Reference Document: July 3, 2013 South Region Reactor Study Presentation from Rob Gray

To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

AVISTA UTILITIES
2015-2017 CAPITAL PROJECTS

Functional Group: Electric Transmission / Distribution

Business Case Name: Westside Rebuild Phase One

ER No: **ER Name:**
2531 Purchase Westside Property

Approved Business Case Spend Amount 2015-2017 ($000s - System): $ 1,750 [1]

Transfer to Plant Amounts ($000s - System):

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	1,780	-	-	-	-	-	-	-	-	-	-	1,780	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-

Business Case Description:

This business case is for the purchase of property at Westside. The purchase was made for the anticipated reconstruction of the existing 115 kV and 230/115 kV Autotransformer bus arrangement anticipated to being in 2017 or 2018.

Offsets:
There are no anticipated offsets with this business case.

[1] The business case amount reflects approved capital expenditures for the years indicated and not transfers to plant.

Capital Project Business Case

Investment Name:	**Westside Rebuild One**		
Requested Amount	**$2,800,000**	**Assessments:**	
Duration/Timeframe	2 Year Project	Financial:	7.00%
Dept.., Area:	T&D - Substations/Transmission	Strategic:	Life-cycle asset management
Owner:	Heather Rosentrater	Business Risk:	Business Risk Reduction >5 and <= 10
Sponsor:	Don Kopczynski	Project Risk:	High certainty around cost, schedule and resources
Category:	Project		
Mandate/Reg. Reference:	n/a	Assessment Score:	94

Recommend Project Description:	Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Phase I: Extend the existing Westside Substation 115 kV and 230 kV buses to allow for a new 250 MVA Autotransformer 3 installation to eliminate overloads for credible bus outages and tie breaker failure contingencies in the Spokane area. Phase II: Replace Autotransformer 1 with a new 250 MVA unit and remove Autotransformer 2 when the new unit is installed. Phase III: Continue extension of the 230 kV yard to double-breaker, double-bus configuration and review design alternatives for the 115 kV configuration to either breaker-and-a-half or double-breaker, double-bus.	Improved performance, upgraded equipment, better status & control, new life cycle.	$ 2,800,000	$ -	$ -	1

Alternatives:		Performance	Annual Cost Summary - Increase/(Decrease) Capital Cost	O&M Cost	Other Costs	Business Risk Score
Unfunded Project:	Outages causing loss of 230/115 kV transformer at Bell or Beacon Stations cause the Westside #1 & #2 230/115 kV Transformers to exceed their facility ratings. The overload mitigation may require the shedding of load to maintain an acceptable operating condition.	n/a	$ 120,000	$ 75,000	$ -	10
Alternative 1: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	1
Alternative 2: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0
Alternative 3 Name: Brief name of alternative (if applicable)	Describe other options that were considered	describe any incremental changes in operations	$ -	$ -	$ -	0

Program Cash Flows

	Capital Cost	O&M Cost	Other Costs	Approved
Previous	$ -	$ -	$ -	$ -
2013	$ -	$ -	$ -	$ -
2014	$ -	$ -	$ -	$ -
2015	$ 1,000,000	$ -	$ -	$ 750,000
2016	$ 1,800,000	$ -	$ -	$ 1,000,000
2017	$ -	$ -	$ -	$ -
2018	$ -			$ -
2019	$ -			$ -
Total	$ 2,800,000	$ -	$ -	$ 1,750,000

Associated Ers (list all applicable):			
2531			

ER	2013	2014	2015	2016	2017	Total
2531	$ -	$ -	$ 1,000,000	$ 1,800,000	$ -	$ 2,800,000
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
0	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 1,000,000	$ 1,800,000	$ -	$ 2,800,000

Mandate Excerpt (if applicable):

Completion of Phase I of the Project will eliminate overload of the existing Autotransformers under certain contingencies. This will meet our Compliance obligations to not exceed facility ratings.

Additional Justifications:

Analysis of the Spokane Area Transmission System is documented in the Spokane Area Regional Assessment identifying several performance issues in the five and ten year planning horizon.The observed overloads occur in the 2014 base cases making the issues an operations concern. Westside #1 230/115 kV Transformer will overload by 2017 for an outage of Westside #2 230/115 kV Transformer.

Milestones (high level targets)

January-15	Sub Design Begins	September-16	Receive new Auto 3 on Pad	January-00	open
August-15	Grading, grounding, fence	October-16	Test, Commission, Energize	January-00	open
October-15	Start Foundations/Steel	January-00	open	January-00	open
January-16	XFMR Relaying/Indication/Control	January-00	open	January-00	open
April-16	Begin buswork & breaker installs	January-00	open	January-00	open
May-16	Install Foundation for Auto 3	January-00	open	January-00	open

Milestones should be general. Use your judgement on project progress so that progress can

Resources Requirements: *(request forms and approvals attached)*

Internal Labor Availability: ☐ Low Probability ☐ Medium Probability ☑ High Probablity ☐ YES

Enterprise Tech: ☐ YES - attach form ☑ NO or Not Required

Capital Tools: ☐ YES - attach form ☑ NO or Not Required ☐ YES - attach form ☑ NO or Not Required

Printed: 03-11-2015
http://sharepoint/departments/budget/Business Cases/Transmission and Distribution/Westside Rebuild Phase One

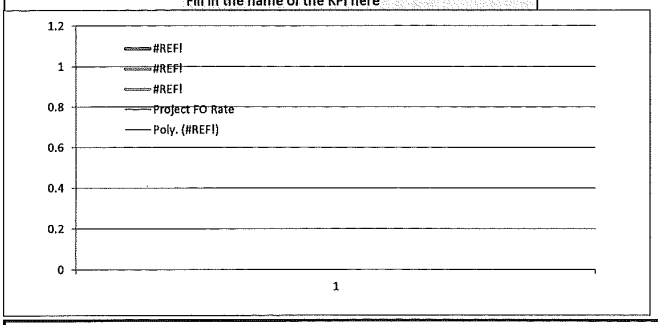
☐ YES - attach form

AVISTA

Key Performance Indicator(s)

Expected Performance Improvements

KPI Measure:	Fill in the name of the KPI here
	Fill in the name of the KPI here



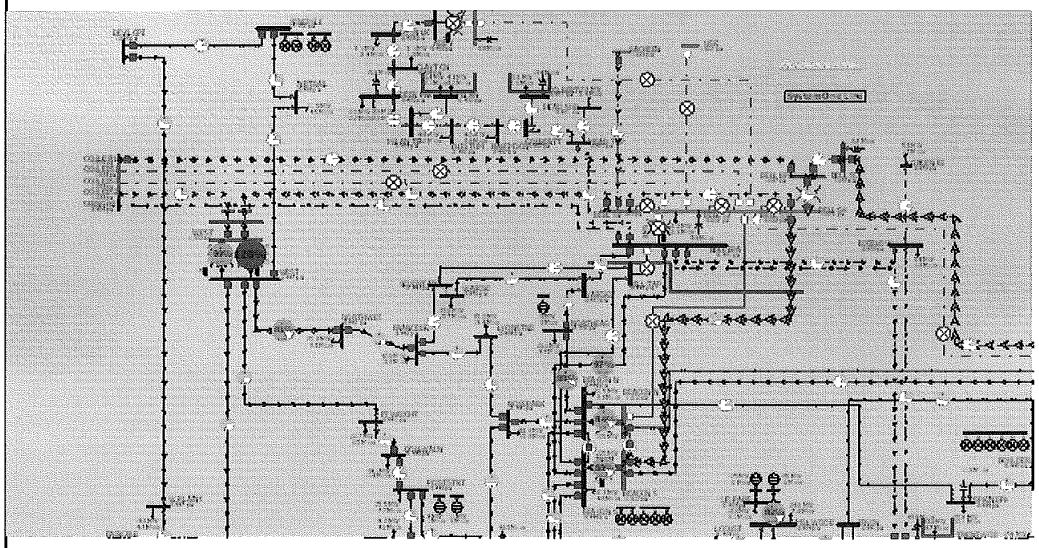
Prepared _____ Mike Magruder - Substation Engineering Manager

Reviewed _____ Heather Rosentrater - Director - ENSO

Other Party Review (if necessary) _____ Andy Vickers - Director - GPSS

Margie Stevens

Below is a visual of the Westside autotransformer overload for a Bell 230 kV bus tie failure.



To be completed by Capital Planning Group

Rationale for decision	Review Cycles 2012-2016	
	Date	Template

Printed 11-05-2014
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