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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF)
IDAHO POWER COMPANY TO IMPLEMENT A)
DEMAND SIDE MANAGEMENT INCENTIVE) CASE NO. IPC-E-06-32
PILOT PROGRAM)
_____)

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

TIMOTHY E. TATUM

1 Q. Please state your name and business address.

2 A. My name is Timothy E. Tatum and my business
3 address is 1221 West Idaho Street, Boise, Idaho.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by Idaho Power Company (Company)
6 as a Senior Pricing Analyst in the Pricing and Regulatory
7 Services Department.

8 Q. Please describe your educational background.

9 A. I received a Bachelor of Business
10 Administration degree in Economics from Boise State University
11 in 2001. In 2005, I earned a Master of Business
12 Administration degree from Boise State University. I have
13 also attended electric utility ratemaking courses including
14 "Practical Skills For The Changing Electrical Industry" a
15 course offered through New Mexico State University's Center
16 For Public Utilities, "Introduction to Rate Design and Cost of
17 Service Concepts and Techniques" presented by Electric
18 Utilities Consultants, Inc. and Edison Electric Institute's
19 "Electric Rates Advanced Course."

20 Q. Please describe your work experience with Idaho
21 Power Company.

22 A. I became employed by Idaho Power Company in
23 1996 as a Customer Service Representative in the Company's
24 Customer Service Center. Over the first two years I handled
25 customer phone calls and other customer-related transactions.
26 In 1999, I began working in the Customer Account Management
27 Center where I was responsible for customer account
28 maintenance in the area of billing and metering.

1 In June of 2003, after seven years in customer
2 service, I began working as an Economic Analyst on the Energy
3 Efficiency Team. As an Economic Analyst, I maintained proper
4 accounting for Demand-Side Management (DSM) expenditures,
5 prepared and reported DSM program accounting and activity to
6 management and various external stakeholders, conducted cost-
7 benefit analyses of DSM programs, and provided DSM analysis
8 support for the Company's 2004 Integrated Resource Plan (IRP).

9 In August of 2004, I accepted a position as a
10 Pricing Analyst in Pricing and Regulatory Services. As a
11 Pricing Analyst, I provided support for the Company's various
12 regulatory activities including tariff administration,
13 regulatory ratemaking and compliance filings, and the
14 development of various pricing strategies and policies.

15 In August of 2006, I was promoted to Senior Pricing
16 Analyst. As a Senior Pricing Analyst my responsibilities have
17 expanded to include the development of complex financial
18 studies to determine revenue recovery and pricing strategies.
19 In my current position, I also provide regulatory support for
20 the Company's DSM programs and other DSM related activities.

21 Q. What is the scope of your testimony?

22 A. My testimony will describe the purpose and
23 structure of a proposed performance-based DSM incentive pilot
24 program (Pilot), detail the proposed mechanisms for providing
25 performance incentives and penalties, and provide an estimate
26 of the financial impact of the proposed mechanisms.

27 Q. Why is the Company proposing to implement a
28 performance-based DSM incentive pilot program?

1 A. Commission Order No. 29558 established Case No.
2 IPC-E-04-15 and approved the use of workshops for the purpose
3 of assessing the financial disincentives to investing in
4 energy efficiency by Idaho Power (Workshop). On January 27,
5 2006, Idaho Power filed an Application in Case No. IPC-E-04-15
6 requesting authority to implement a rate adjustment mechanism
7 that would adjust the Company's rates upward or downward to
8 recover the Company's fixed costs, independent of the volume of
9 Company energy sales (FCA Mechanism). Within Case No. IPC-E-04-
10 15, the Company and other parties have filed a settlement
11 stipulation that would implement an FCA Mechanism on a pilot
12 basis. If the FCA Mechanism is approved by the Commission and
13 operates as expected, it will significantly reduce the
14 financial disincentives to investing in energy efficiency by
15 Idaho Power. However, during the Workshop process the parties
16 that signed the stipulation all agreed that with the FCA
17 Mechanism alone, the Company does not have an incentive to
18 pursue all cost effective DSM; it simply no longer has a
19 disincentive. At the suggestion of the Northwest Energy
20 Coalition and others, the parties agreed that the Company
21 should test a performance-based DSM incentive mechanism on a
22 pilot basis. The performance-based DSM incentive mechanism
23 combined with the FCA Mechanism will create an economic
24 environment that will encourage Idaho Power to aggressively
25 pursue DSM resource acquisition.

26 Q. If a performance-based incentive program is
27 desirable, why is the Company proposing a Pilot program?

28 A. Introducing the performance-based incentive program

1 as a Pilot program will allow the Company to test the effects
2 of the proposed performance-based DSM incentive mechanism on a
3 limited basis. The Company intends to learn from the Pilot
4 with the ultimate goal of developing a broader performance-
5 based DSM incentive mechanism that can be applied to the
6 Company's entire portfolio of DSM programs.

7 Q. How was the proposed Pilot structure developed?

8 A. The proposed Pilot structure is the result of a
9 collaborative effort between the parties involved in the
10 Workshop including representatives from the Company, the Idaho
11 Public Utilities Commission Staff (Staff) and the NW Energy
12 Coalition.

13 Q. Please describe the purpose of the proposed
14 performance-based DSM Pilot.

15 A. The purpose of the Pilot is to test the effects of a
16 performance-based DSM incentive mechanism designed to reward
17 the Company for executing its DSM program at a level that
18 exceeds agreed-upon goals and impose a penalty if the DSM
19 program's performance falls below its 2006 performance level.
20 The Company will not earn an incentive or a penalty for DSM
21 program performance between the goal level and the historical
22 level. In the Pilot, the performance incentive and penalty
23 mechanism will be tested on one of the Company's current DSM
24 Programs.

25 Q. What is the proposed effective period of the Pilot?

26 A. The Pilot is proposed to be in effect for three
27 years beginning January 1, 2007 and continuing through
28 December 31, 2009.

1 Q. For the purposes of determining an incentive or
2 penalty under the Pilot, when will the Company's DSM program
3 operational performance be evaluated?

4 A. The Company's DSM program operational performance
5 will be evaluated annually for the purpose of determining an
6 incentive or penalty under the proposed Pilot structure.

7 Q. Which DSM program does the Company propose to use
8 for the Pilot?

9 A. The Company proposes to use the ENERGY STAR® Homes
10 Northwest program in the Pilot.

11 Q. Please provide a brief description of the ENERGY
12 STAR Homes Northwest program.

13 A. ENERGY STAR Homes Northwest is an incentive-based
14 program that encourages the onsite construction of energy
15 efficient single-family homes. ENERGY STAR Homes Northwest is
16 the program currently operated by the Company to acquire the
17 resources identified in the Residential New Construction
18 Option in the 2004 IRP. This program was developed by the
19 United States Environmental Protection Agency/Department of
20 Energy, the Northwest Energy Efficiency Alliance (NEEA) and
21 Pacific Northwest electric utilities. There are three
22 implementation partners for this program in the Company's
23 service territory; NEEA, Idaho Energy Division (IED) and Idaho
24 Power.

25 The essential feature of this program is a
26 prescriptive building standard, also called a builder option
27 package or BOP that establishes building standards that will
28 result in approximately 30% greater energy efficiency than

1 existing Idaho residential building codes. Under the program,
2 the Company provides an incentive payment of \$750 to the
3 builder for each home built to the higher standard and also
4 provides marketing to encourage participation in the program.
5 IED certifies that homes are built to the standard and
6 conducts a quality assurance process. NEEA provides the
7 builder outreach and training components of the program.

8 Q. What is the estimated annual energy savings of a
9 home built to the ENERGY STAR standard as compared to a home
10 built to existing Idaho residential building codes?

11 A. On average, a home constructed to the ENERGY STAR
12 standard in Idaho will save 2,078 kilowatt-hours (kWh)
13 annually as measured at the meter or 2,305 kWh including line
14 losses. This estimate is based on an engineering simulation
15 study, conducted for the Company in early 2004 by Ecotope
16 Consulting to determine the program's savings potential in
17 Idaho.

18 Q. What are the Company's performance goals for ENERGY
19 STAR Homes Northwest for each of the years 2007 - 2009?

20 A. The performance goal for ENERGY STAR Homes Northwest
21 is a market-share percentage goal that compares the number of
22 new ENERGY STAR Homes built to the total number of new homes
23 built in the Company's Idaho service area. The market-share
24 goals for 2007 through 2009 are equal to NEEA's market-share
25 goals for utility incentive-funded ENERGY STAR Homes built in
26 the Pacific Northwest for those same years. NEEA's market-
27 share goals for ENERGY STAR Homes are detailed in Exhibit 1;
28 the RSI New Construction Renewal Proposal dated June 26, 2006.

1 The following Table 1 details the market-share goal for
2 ENERGY STAR Homes Northwest during the Pilot period:

Year	ENERGY STAR Homes Market- share
2007	7.0%
2008	9.8%
2009	11.7%

3

4 Q. Idaho Power normally establishes cost-effective
5 energy savings targets for its DSM programs through the IRP
6 process. Why has the Company adopted a different goal setting
7 method for the Pilot?

8 A. The Company's IRP process establishes long-term
9 energy savings goals for DSM programs based on assessments of
10 DSM potential and load forecasts. The long-term nature of the
11 IRP energy targets does not allow for annual adjustments to
12 account for economic variability from year to year. The
13 Workshop parties all agreed that, for the purpose of the
14 Pilot, a goal based on a percentage of new homes built would
15 be more appropriate for an annual evaluation of program
16 performance. A market-share goal allows for the targeted
17 number of ENERGY STAR Homes built each year to adjust in
18 proportion to the new home construction market conditions in
19 each year.

20 Q. Why is the Company proposing to use the NEEA market-
21 share goals for ENERGY STAR homes to establish the Pilot
22 goals?

1 A. It was suggested by Staff during the Workshop that
 2 the NEEA market-share goals for 2007 through 2009 would
 3 establish a good target for the Pilot, as it would align Idaho
 4 Power's program targets with NEEA's goals for ENERGY STAR
 5 Homes in the region. Furthermore, by achieving NEEA's market-
 6 share goals for utility funded ENERGY STAR Homes, the Company
 7 will also meet its IRP energy savings targets for ENERGY STAR
 8 Homes.

9 Q. What is the total number of new homes estimated to
 10 be constructed in the Pacific Northwest during 2007 through
 11 2009 and how many of those new homes are expected to be
 12 utility-funded ENERGY STAR Homes?

13 A. Table 2 has been prepared according Exhibit 1;
 14 NEEA's RSI New Construction Renewal Proposal dated June 26,
 15 2006. Table 2 details NEEA's projected market-share for 2007
 16 through 2009 for homes built to the ENERGY STAR standard
 17 receiving utility incentives:

Table 2: NEEA Market-Share Goals			
Year	Total Homes Estimate	ENERGY STAR Homes	ENERGY STAR Homes Market-share (Receiving Utility Incentives)
2007	89,461	6,306	7.0%
2008	92,905	9,087	9.8%
2009	96,482	11,273	11.7%

NEEA RSI New Construction Renewal Proposal dated June 26,
 2006, Page 15.

18

19 Q. How will the Company determine the number of new
 20 homes constructed in its service area for use in the

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 Idaho Power Company

1 computation of its market-share achievement?

2 A. I propose that the Wells Fargo Bank Idaho
3 Construction Report be used to determine the number of new
4 homes constructed in Idaho Power's service area. The report
5 will be adjusted to include only homes served by Idaho Power.

6 Q. Is the tracking of building permits as a determinant
7 of the single-family home construction totals consistent with
8 NEEA's method for deriving its market-share projections?

9 A. Yes. NEEA states on page 3 of its RSI New
10 Construction Renewal Proposal dated June 26, 2006 that single
11 family home construction permits form the basis of its market-
12 share projections.

13 Q. At what performance level will the Company incur a
14 penalty under the proposed Pilot?

15 A. The Company will be subject to a penalty when the
16 ENERGY STAR Homes Northwest program fails to reach the market-
17 share percentage achieved by the program in 2006. The program
18 is expected achieve a market-share of 4.9% in 2006. The 2006
19 market-share percentage is calculated as the number of Idaho
20 Power-funded ENERGY STAR Homes constructed in 2006 divided by
21 the number of single family home building permits recorded
22 within Idaho Power's service area in 2006 as reported in the
23 Wells Fargo Bank Idaho Construction Report (400 ENERGY STAR
24 Homes ÷ 8,185 Total Homes = 4.9%).

25 Q. How does the Company propose to compute the
26 incentive and performance penalty through the Pilot?

27 A. Whenever the Company's DSM program operational
28 performance is at a level that triggers an incentive or

1 penalty, both the incentive and penalty dollar amounts will be
2 derived as a percentage of the present value life-cycle net
3 benefits of the DSM program from a Total Resource Cost
4 perspective. A program's net benefit represents the dollar
5 difference between the present value life-cycle gross benefits
6 of the efficiency measures installed and the Total Resource
7 Cost. If program performance falls between the penalty
8 threshold and the performance goal, the Company will not earn
9 a penalty or incentive.

10 Q. What is the Company's preferred method for
11 quantifying the gross benefits of a DSM program?

12 A. Idaho Power calculates the gross benefits of a DSM
13 program as the present value life-cycle energy savings
14 resulting from a DSM program based on the avoided energy cost
15 of the next best generation alternative as reported in the
16 most recent IRP.

17 The DSM Alternative Costs in Table 3 below represent the
18 present value of the cost of energy from the next best
19 resource alternative per MWh based on the expected load
20 profile for ENERGY STAR Homes Northwest. Exhibit 2 details the
21 calculation of the DSM Alternative Costs. The DSM Alternative
22 Cost per unit of energy varies depending upon the load profile
23 associated with the efficiency measures encouraged by a
24 particular program. The Alternative Energy Costs listed in
25 Table 3 are applicable only to energy savings associated with
26 ENERGY STAR Homes built in 2007 and should not be used as
27 avoided costs for any other resource valuation applications.

1 The DSM Alternative Costs are the same as those used to pre-
2 screen DSM programs for the Company's 2006 IRP. A detailed
3 description of the DSM Alternative Costs can be found on pages
4 65-68 of the 2006 IRP Technical Appendix.

Table 3: 2005 DSM Alternative Costs*
(Present value based on a 25 Year Measure Life)

	Alternative Energy Cost (\$/annual MWh)	
ENERGY STAR® Homes NW	\$	1284.6
* Costs include line losses of 10.9%.		

5

6 Q. Does the Company plan to use the energy savings per
7 home estimates from the Ecotope Consulting study to quantify
8 the energy savings achieved each year under the Pilot?

9 A. No. The energy savings per home estimate of 2,078
10 kWh annually as measured at the meter or 2,305 kWh including
11 line losses has been used only in analyses of potential
12 effects of the Pilot. The Company or a third-party consulting
13 firm will conduct an updated evaluation of ENERGY STAR Homes
14 Northwest program energy savings during 2007. The updated
15 evaluation results will serve as the basis for the
16 quantification of the energy savings achieved by the program
17 throughout the remainder of the Pilot.

18 Q. What are the expected program costs for ENERGY STAR
19 Homes Northwest required to achieve the 7.0% market-share goal
20 for 2007?

1 A. The ENERGY STAR Homes Northwest program costs for
2 2007 are estimated at \$850,000 and will be funded through the
3 Idaho Energy Efficiency Rider (Rider). Program costs funded by
4 the Rider include the cost of planning, developing,
5 implementing, monitoring and evaluating DSM programs included
6 in the Pilot. Evaluation costs of the programs in the Pilot
7 are not to exceed 5% of program costs and will be included in
8 the cost-effectiveness calculation. The Total Resource Cost,
9 which includes the cost to a customer for participating in the
10 program, is estimated to be approximately \$1,100,000 in 2007.

11 Q. Will a portion of the costs associated with NEEA's
12 regional ENERGY STAR Homes initiative be included in the
13 calculation of Total Resource Costs in the Pilot?

14 A. No. While NEEA's regional ENERGY STAR Homes
15 initiative contributes to the success of the Company's current
16 program, NEEA's ultimate goal for its current expenditures is
17 a transformed market where ENERGY STAR homes are constructed
18 without receiving utility incentives. In order to achieve its
19 market transformation goal, NEEA is making investments today
20 to develop a support network for the construction of ENERGY
21 STAR homes. These investments include, but are not limited to,
22 the training of ENERGY STAR home builders and inspectors,
23 energy efficiency research and supporting improvements in
24 building codes and efficiency standards. Each of these
25 activities benefits the Company's current program while
26 building a foundation for future energy savings. Since it is
27 difficult to determine what share of the NEEA expenditures
28 benefit utility programs and what share results in market

1 transformation savings, NEEA and its members have agreed to
 2 keep the accounting of costs and savings associated with NEEA
 3 initiatives separate from the accounting of utility program
 4 activities.

5 Q. If the Company's ENERGY STAR Homes Northwest program
 6 exceeds its market-share goal during the Pilot, how will the
 7 Company's percentage share of the program's net benefits
 8 (incentive) be determined?

9 A. The proposed performance incentive design uses a
 10 sliding scale approach that increases the incentive amount as
 11 program performance increases. As can be seen from the detail
 12 in Table 4 below, a performance incentive would be awarded
 13 when the market-share achieved exceeds 100% of the target
 14 level. The incentive amount awarded increases for each whole
 15 percentage point over the market-share goal and will be capped
 16 at 110% of the goal.

Table 4: Performance Incentive Thresholds											
Percent of Market-share Goal Achieved	100% or less	101%	102%	103%	104%	105%	106%	107%	108%	109%	110% and Greater
Share of Program Net Benefits (TRC)	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%

17

18 Q. If the Company's ENERGY STAR Homes Northwest program
 19 fails to achieve its minimum market-share threshold of 4.9%
 20 during the Pilot, how will the Company's penalty amount be
 21 determined?

22 A. Like the incentive determination, the penalty will
 23 be calculated as a share of the program's life-cycle net
 24 benefits from the Total Resource Cost perspective. However, in

1 the penalty calculation, the Company will pay a fixed 50%
2 share of the "lost" net benefits resulting from the
3 unsatisfactory performance level. Lost net benefits are
4 equivalent to the difference in the net benefit amount that
5 would have occurred had the program performed to the minimum
6 market-share level and the actual net benefits at the lower
7 performance level. For example, if the ENERGY STAR Homes
8 Northwest program achieves a 2.5% market-share level in 2007
9 resulting in net benefits of \$100,000 and the net benefits at
10 4.9% market-share threshold are equal to \$150,000, the penalty
11 amount would be \$25,000 or 50% of the difference in net
12 benefits.

13 Q. What is the range of potential incentive and penalty
14 payouts at various program performance levels?

15 A. Table 5 details the possible effects of the proposed
16 Pilot as applied to the Company's ENERGY STAR Homes Northwest
17 program market-share goals for 2007. The estimated incentive
18 and penalty amounts shown in Columns E and F of Table 5 are
19 for illustrative purposes only. Actual incentive and penalty
20 amounts will vary depending upon actual program costs and
21 benefits. Table 5 provides the potential incentive amount or
22 penalty amount associated with various levels of market-share
23 attained through the program. For example, to find the
24 estimated performance incentive amount for 2007 if the Company
25 achieves a 7.7% market-share, 110% of its goal, refer to Table
26 5, Column D, Row 6.

27
28

Table: 5 Pilot Analysis Potential Incentive/Penalty Amounts At Various Performance Levels					
ENERGY STAR® Homes NW					
2007 Market Share Target 7%, Penalty Threshold 4.9%					
	A	B	C	D	E
	Market Share	% of Market Share Target Achieved	% of Penalty Threshold Met	Company Incentive (10% Cap)	Company Penalty (50% share)
1	2.80%	40%	57%	\$0	\$127,344
2	4.20%	60%	86%	\$0	\$42,396
3	5.60%	80%	100%	\$0	\$0
4	7.00%	100%	100%	\$0	\$0
5	7.35%	105%	100%	\$30,960	\$0
6	7.70%	110%	100%	\$66,168	\$0
7	8.74%	125%	100%	\$78,910	\$0
8	10.49%	150%	100%	\$100,147	\$0

1

2 Q. If Company earns an incentive or incurs a penalty
3 during the Pilot, how will the amount of the incentive or
4 penalty be transferred between the Company and its customers?

5 A. Should the Company earn an incentive or incur a
6 penalty under the Pilot, the dollar amount of the incentive or
7 penalty will be determined by the Company and submitted for
8 Commission review no later than March 15 of each year. Upon
9 Commission approval, any incentive amount will be applied as
10 an additional energy rate to all customer classes over a 12-
11 month period beginning June 1. Conversely, any penalty amount
12 will be applied as a reduction to the energy rate over the
13 same period. The resulting dollar amount applied to customers'
14 bills will not appear as a separate line item on each bill.
15 For the purpose of bill presentment, the dollar amount will be
16 combined with the existing "Conservation Program Funding
17 Charge" line item.

1 Q. Is it your opinion that the implementation of the
2 proposed Pilot is in the public interest?

3 A. Yes. The proposed Pilot will provide an environment
4 where the incentive mechanism can be tested on a limited basis
5 to determine its potential to encourage the Company to
6 aggressively pursue cost-effective energy efficiency.

7 Furthermore, the Pilot is consistent with the National
8 Action Plan for Energy Efficiency introduced last summer and
9 endorsed by many entities including the National Association
10 of Regulatory Commissions and the Edison Electric Institute.

11 Q. Does this conclude your testimony?

12 A. Yes it does.

BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-06-32

IDAHO POWER COMPANY

EXHIBIT NO. 1

TIMOTHY E. TATUM

DIRECT TESTIMONY



June 26, 2006

TO: Board of Directors
FROM: Anne Brink
SUBJECT: RSI New Construction Renewal Proposal

SUMMARY:

Project Name: RSI New Construction

Sector: Residential

Market: New single-family residential construction

Description: Residential new construction includes promoting a market-based component called *ENERGY STAR Homes Northwest* as well as efforts to demonstrate emerging products and improve codes and code implementation. *ENERGY STAR Homes Northwest* is based on EPA's ENERGY STAR brand for new homes, adapted to meet the unique needs of the Northwest. The ENERGY STAR label serves as the mechanism to both differentiate builders and the homes they build as well as to provide consumers with an easy way to identify the home as efficient. Marketing and home certification and labeling efforts are designed to increase the market share of ENERGY STAR homes.

3 Year Budget: \$8,040,000 (\$7,240,000 implementation, \$800,000 eval.)

Timeframe: 1/1/07-12/31/09

CRITERIA FOR PROJECT SELECTION:

Projected electricity savings

Renewal period (2007-2009): 6.1 aMW Regional Total: 5.4 aMW Utility, 0.6 aMW Alliance

Long Term 2007-2015: 35 aMW Regional Total: 19 aMW Utility, 14 aMW Alliance

Cost Effectiveness:	CE Index ¹ : 1.8 Levelized Cost ² : \$-0.02/kWh
Geographic Balance:	Yes – all four states
Customer Class Reach:	Addresses residential sales of new homes
Private Sector Co-Investment:	Yes – Cooperative marketing with builders and trade allies at a \$2 to every \$1 of Alliance funding.

IMPLEMENTATION: Strategy and Approach

Status through 2005:

The first two years of the Residential New Construction component has been focused on bringing ENERGY STAR Homes to the market. The market actors are largely relying on the Alliance, its contractors and utilities to achieve success in the market. We have been focused on building the market infrastructure, signing on builders and moving homes through the certification process.

During that time period the following has been accomplished:

- Established a solid infrastructure of verifiers and performance testing technicians.
- Established processes for certification and quality assurance that are working and are continuously examined for improvement in efficiency and effectiveness.
- Signed 305 builders total in 2004 and 2005. Market Progress Evaluation Report 2 indicates participating builders are currently satisfied with the initiative.
- Certified 988 homes in 2005 and 57 homes in 2004.
- Developed and implemented key components of the marketing elements and gained participation from builders, HVAC contractors and verifiers.
- Established relationships with national market players such as the EPA and RESNET (Residential Energy Services Network – a national organization of professionals providing energy analysis and consulting for existing and new residential construction).

Progress Planned for 2006

In 2006 the new construction component will add to this success in the following ways:

- Fill in the gaps that exist in some geographic areas for performance testing and verification infrastructure.
- Gain more participation from the existing builder base in co-marketing and selling Energy Star homes to the consumers.
- Begin to engage the HVAC community in selling the ENERGY STAR Homes brand.
- Leverage the federal tax credit program to establish a higher bar for potential future ENERGY STAR Homes Northwest specifications and gain incremental savings. Utilize demonstration projects to assist with this effort.
- Begin to establish manufacturer relationships in lighting and HVAC and develop co-investment opportunities with these players.
- Engage the Realtor community in selling ENERGY STAR Homes.

¹ Total Resource Perspective

² Total Resource Perspective

- Leverage EPA funding and local utility efforts for increased consumer marketing.
- Support builders in successfully meeting the lighting requirement through builder and verifier trainings and showroom support.

Objectives and Strategies for 2007-2009

The objective for the renewal period will be to achieve 14% market share by the end of 2009³ and to have the marketplace take ownership of the ENERGY STAR Homes initiative’s success. Encouraging the verifiers and builders and other market actors to take ownership of the success of this effort is a critical step in market transformation and the first step of a long-term exit strategy. The new homes team will continue to recruit ENERGY STAR builders but increase efforts to enable HVAC contractors and verifiers to recruit the builders. In addition, more emphasis will be placed on engaging the lighting and HVAC channel in promoting ENERGY STAR Homes.

**ENERGY STAR Homes Northwest
Projected Market Share**

Year	Total Homes Estimate*	ENERGY STAR Homes	ENERGY STAR Market Share
2007	89,461	6,710	7.5%
2008	92,905	10,220	11.0%
2009	96,482	13,508	14.0%

* Total Homes Estimated are derived as follows: 2004 single family permits pulled from the 2004 Census. 2005 numbers assumed a 10% increase based on data through mid year. 2006 through 2009 assumes a 3.85% growth based on Northwest Power Plan. ENERGY STAR market share is for certified ENERGY STAR homes only.

The following strategies will be pursued to achieve this objective:

Homebuyer Market

- Leverage Alliance funds to obtain co-investment from EPA and utilities for consumer advertising.
- Continue to focus marketing efforts primarily on reaching current homebuyers vs. broad based consumer marketing.

³ The 14% market share goal has been reduced from the original 20% goal (as indicated in the Project Description for ENERGY STAR Home Northwest dated July 10, 2003) as a result of 2 years of program start up experience. This adjustment is due to full program roll out completing approximately 10 months later than anticipated and the sales cycle to bring a builder on board and fully transition their building practices to the ENERGY STAR standard is longer than first anticipated.

Builders, Realtors, Lenders and Appraisers

- Move beyond the recruitment of builders who are early adopters, those who use the brand to differentiate themselves, to the early majority, those builders who begin to sign on because they want to be a part of the success.
- Increase builder participation in marketing ENERGY STAR homes to consumers.
- Continue to engage the Realtor community in selling ENERGY STAR Homes.
- Engage the lending and appraisal industry to recognize the increased value of ENERGY STAR Homes.

Heating and Cooling (HVAC)

- Fully engage the HVAC contractors in proactively selling ENERGY STAR Homes Northwest as a means to improve their profitability. Primary focus will be dedicated to their support of the ENERGY STAR Homes specification, however these efforts will also support component improvements in the new homes market place.
- Dramatically increase participation and co-investment from HVAC equipment manufacturers. Participation might include sponsoring training for builders and HVAC contractors, providing manufacturer rebates on equipment or co-investing in consumer marketing or builder marketing activities.

Lighting⁴ and Appliances

- Continue to work with builders and verifiers to ensure quality installations of ENERGY STAR lighting.
- Continue to work with manufacturers, lighting showrooms and electrical distributors to ensure quality products are available for builders.
- Engage manufacturers and showrooms in proactively supporting ENERGY STAR lighting in new homes.
- Work with builders and manufacturers on promoting ENERGY STAR appliance packages to new homeowners.
- Support the use of lighting fixtures to meet the specifications of ENERGY STAR Homes Northwest in those markets where utilities are supporting the sales of lighting fixtures.
- Work with the Puget Sound area utilities on a fixture pilot that works with lighting showrooms and distributors to improve their support of ENERGY STAR fixtures sales.⁵

Verification, Certification and Quality Assurance

- Develop the verifier network to be professional, proactive, self-sustaining businesses.
- Move to a point where certification fees, training fees and HVAC manufacturer support fully fund the training, QA and certification aspects of the initiative.
- Incorporate quality assurance results into builder, verifier and HVAC training to ensure continuous improvements in the quality of ENERGY STAR Homes.

⁴ See appendix B, "Lighting Strategy in ENERGY STAR Homes NW," for more details.

⁵ See appendix C, "ENERGY STAR Fixture Pilot in New Construction" for more details.

Goals:

Original Goal:	Progress through 2005	2006 anticipated progress	2007 - 2009
Increase the market share of ENERGY STAR Homes in the NW from effectively 0% to ~20% within 5 years of project start-up.	988 homes certified in 2005- an estimated 1.1% market share. 57 homes certified in 2004	3500 homes certified - an anticipated 4.1% share.	Achieve 14% market share by end of 2009.
Increase inclusion of key ENERGY STAR products (windows, lighting, appliances) in new homes	NW BOP developed— includes 50% lighting and dishwasher spec	National BOP spec developed compatible with the NWBOP, includes min. lighting req.	Potential spec revision in late 2009 for 2010 Option appliance packages
Develop sufficient infrastructure for building ENERGY STAR homes (ie., performance testing, verification, certification)	Total 305 signed builders, 130 performance testing technicians and 79 verifiers.	Fill in geographic gaps in HVAC and verifier infrastructure.	Infrastructure services become successful business model to sustain brand support.
Demonstrate emerging energy efficiency products and services to foster wide-spread adoption of promising products and construction approaches.		Oregon and Washington demo projects begin	Idaho and Montana demo projects are completed
Facilitate improvements in energy codes and compliance linking energy efficiency programs and building energy code upgrades.		ENERGY STAR inspections for energy code compliance in Idaho jurisdictions supporting this strategy.	Support the NW Best effort (regional guidelines for voluntary residential initiatives and future code change proposals)
Other market actors and trade allies are spending their own resources marketing ENERGY STAR homes.		Estimate \$100,000 in market funds support the initiative	Estimate \$500,000 cumulative in market funds support the initiative

Budget:

The budget for the 2007 through 2009 cycle is \$7,120,000 broken out by category in the chart below.

ENERGY STAR Homes NW Budget

Year	Market Outreach	Coordination	Marketing	Technical Support	Lighting	Total Budget
2007	\$ 941,500	\$ 542,300	\$ 536,200	\$ 350,000	\$ 240,000	\$ 2,610,000
2008	\$ 921,250	\$ 529,250	\$ 524,500	\$ 175,000	\$ 240,000	\$ 2,390,000
2009	\$ 909,000	\$ 500,250	\$ 515,750	\$ 125,000	\$ 190,000	\$ 2,240,000
						\$ 7,240,000

Market Outreach, Coordination and Marketing are currently elements of the new construction component. Market Outreach includes staff dedicated to selling, educating and supporting builders and HVAC contractors as well as travel expenses associated with the outreach activities. 6 FTE is currently budgeted for this category.

Coordination expenses include staff dedicated to managing the new construction component, database support, internal builder support and utility coordination.

Marketing expenses included co-op ad funds, public relations support, advertising dollars, builder training materials and merchandising materials. The team will work to maintain as much marketing funding as possible to address the need for additional consumer education as recommended by the Market Progress Evaluation Report 2.

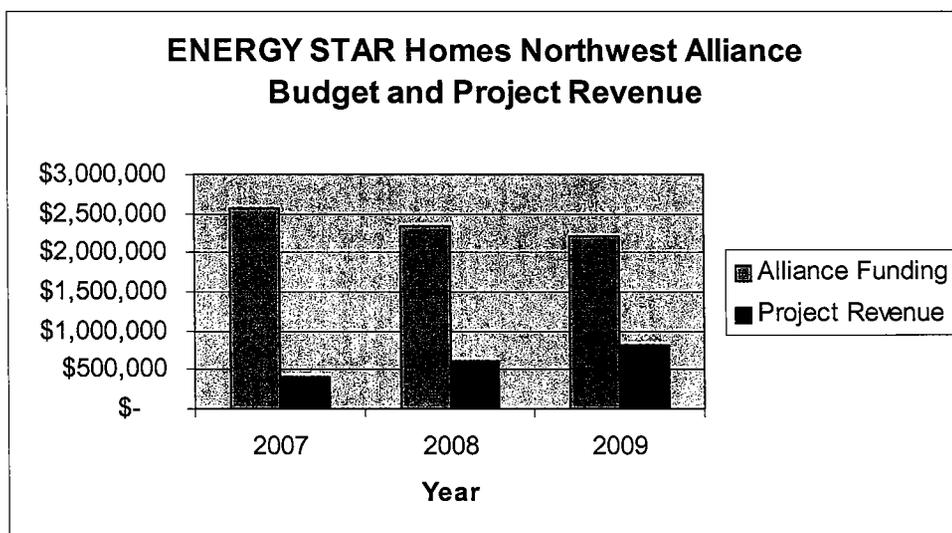
Technical support services are provided by the State Certification Organizations: Oregon Department of Energy (ODOE), Washington State University Energy Services (WSU), Idaho Energy Division (IED) and National Center for Appropriate Technology (NCAT) in Montana. These services include quality assurance, certification, verifier training and support and HVAC performance testing training and support. This budget category also includes demonstration projects in Idaho and Montana for the 2007 time period. (Oregon and Washington are scheduled for 2006.) This is the net Alliance funding after revenues from certification fees for each home certified ENERGY STAR are netted out.

Lighting budget includes lighting support for builders; showroom, distributor and manufacturer engagement⁶; and the promotion of appliance packages to homebuyers' purchasing appliances beyond the built in appliance spec for ENERGY STAR Homes Northwest. It also includes \$40,000 allocated to the ENERGY STAR Fixture Pilot in New Construction in 2007 and 2008.⁷

⁶ See appendix B, "Lighting Strategy in ENERGY STAR Homes NW" for more details.

⁷ See appendix C, "ENERGY STAR Fixture Pilot in New Construction" for more details.

The new construction component of the RSI initiative brings in certification fees as project revenue offsetting the costs of technical support, quality assurance and certification from the State Certification Organizations. Over the course of the 3 year period Alliance funding support is reduced and certification revenue increases to offset reduced Alliance expenditures as pictured in the chart below.



Cost Effectiveness

Energy Savings. The RSI Energy Star New Homes project was modeled for cost-effectiveness on the basis of a weighted average cost and savings across three different building types (1,800 ft², 2,200 ft² and 3,300 ft²), five climate zones (Portland, Seattle, Spokane, Boise, and Missoula) and four heating system types (heat pump, zonal electric, gas with air-conditioning, gas without air conditioning). Table 1 below indicates the average electric and gas savings by heating system type. It also indicates the amount of savings allocated to lighting in each of the homes.

Table 1. Energy Savings by Heating System

	Heat Pump ⁸	Zonal Electric	Gas + AC ⁹	Gas (No AC)
Total Electric (kWh)	3,970	3,839	1,108	992
Lighting (w/o hvac)	992	992	992	992
Gas (therms)	NA	NA	153	153
Weighting	9.5%	4.8%	35.9%	49.8%

Using the data and weights in Table 1, the regional average savings per home amount to 1,533 kWh/year¹⁰ and 131.4 therms/year.

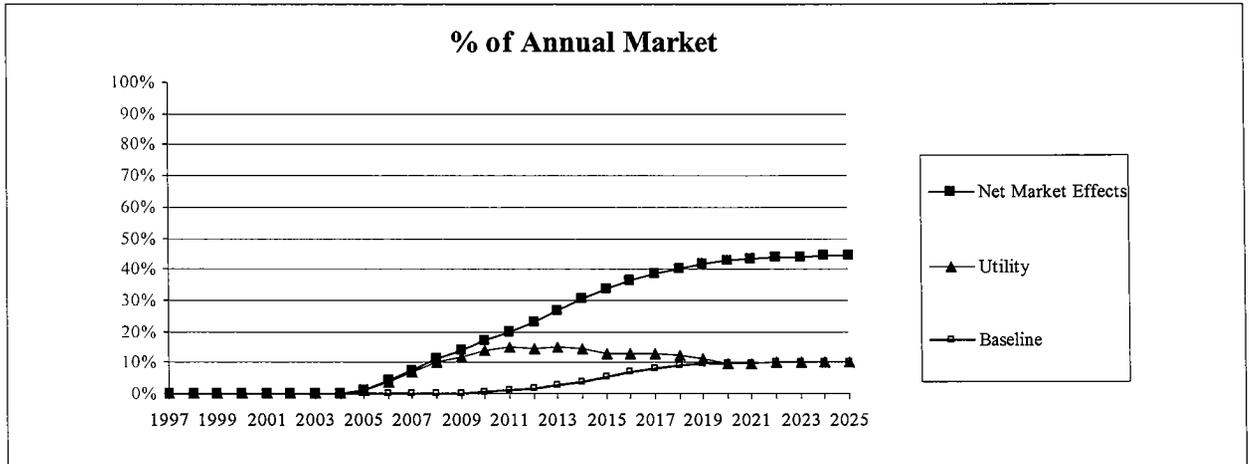
Costs. Using the same weighting and incremental first costs, the weighted regional average incremental first cost of the Energy Star Home is \$1,349 per home. Because the home represents a package of measures, some of which will last for the life of the home and others with much shorter life, the cost of replacements are modeled and then computed as a present value which is added to the incremental first cost of the home in the ACE model. Including this present value of replacement costs raises the total cost of the weighted average home to \$2,373.78.

⁸ Savings for heat pumps are based on the increment between HSPF 8.5/SEER 13 and the new federal standard of HSPF 7.7/SEER 13.

⁹ Air-conditioners in gas homes are modeled as SEER 13 units in both Energy Star and base case; savings result only from reduced internal gains from lighting and lower fan energy from reduced fan run time due to reduced leakage in ducts.

¹⁰ CFLs contribute to savings at 992 kWh/year/home with HVAC Interactions that result in net savings of 795 to 1052 kWh depending on the HVAC system type.

Market Penetration. The market for Energy Star homes is one and two family homes built at the location. The graph below indicates the share of new home construction counted towards baseline, utility incented and net market effect units.



Market penetration of all homes built to ENERGY STAR Homes Northwest standards (including baseline homes) is estimated to grow from just over 1% in 2005 to 14% by 2009 and to 34% by 2015. Utility and baseline units make up the majority of the units in 2007-2009. Utility units are forecasted to level off as the market share increases beyond 20%.

A more detailed summary of the cost-effectiveness analysis is included in Appendix A.

Evaluation

The RSI Energy Star New Homes project evaluation for 2007 – 2009 will include three MPEs and an Impact Evaluation report. The evaluation will measure the project’s progress toward the goals stated above.

In addition, the following measurable progress indicators will be tracked as indicators of market progress:

- Builders use the ENERGY STAR label to differentiate themselves in the marketplace.
- Consumers, builders, and other market actors link ENERGY STAR homes and home quality/value.
- Builders are convinced of the long-term cost savings from reductions in call-backs that should result from performance testing and quality assurance practices;
- Increased awareness by builders and subcontractors of key efficiency and quality issues.
- Other market actors and trade allies are spending their own resources marketing ENERGY STAR Homes and matching Alliance investments.
- Builders and their subcontractors have expanded knowledge and skills necessary to treat key energy efficiency and quality issues, particularly performance testing of HVAC ducts and equipment.
- Increasing recognition of the ENERGY STAR label and understanding what it means for new homes.

- Multiple Listing Services include whether a home is certified ENERGY STAR in their listings.
- The value of efficiency upgrades is automatically included in the appraisal process.
- Residential energy codes are upgraded to incorporate some or all of the current ENERGY STAR requirements.
- A new level of efficiency for ENERGY STAR is adopted based on successful demonstration of new and emerging technologies.
- ENERGY STAR home purchasers are highly satisfied with their homes and recommend them to others

Evaluation Components

The ENERGY STAR Homes evaluation for 2007-2009 will include the following components. Table 2 shows the anticipated schedule for conducting each of these components.

Process Evaluation/Assessment: The evaluator will summarize project activities since the previous MPER based on status reports, in-depth interviews with key market actors (such as builders, verifiers etc); contractor staff and project contractors. Findings will be incorporated into each MPER.

Market Characterization: Evaluation reports will include a review of current conditions in the new home market including potential market size and market share; and forecasted market growth. Data from the tracking database will be analyzed in conjunction with the market characterization to estimate ENERGY STAR current and projected market share.

Homebuyer Survey: A third wave of the homebuyer survey previously conducted in 2004 and 2006 will be conducted in 2008. The survey will track progress on homebuyer awareness, knowledge, understanding, attitudes, and purchasing behavior surrounding ENERGY STAR homes. This includes general awareness and understanding of the ENERGY STAR home label and its meaning, and the value placed on the various benefits offered by ENERGY STAR homes.

Builder Survey: A third wave of the builder survey previously conducted in 2004 and 2006 will be conducted in 2008. The survey will track builder knowledge, attitudes, and sales behavior regarding ENERGY STAR Homes as reflected in their attitudes and perceptions of the ENERGY STAR homes label, marketing efforts, and individual efficiency components such as duct testing and sealing. Satisfaction with the ENERGY STAR Homes Northwest component will also be measured.

Market Actor Interviews: In-depth interviews with builders, contractors, verifiers, lighting market channels, and project staff will be conducted each year in order to gain an in-depth understanding of ongoing market barriers and opportunities. This information will be used to inform the process evaluation and adaptive management process.

Post-Occupancy Survey: A post-occupancy survey will be conducted in 2007 to assess purchaser satisfaction with ENERGY STAR homes and to determine the retention rate of CFLs, which are a

critical component of electricity savings. The evaluator will attempt to conduct these surveys on-site to allow the most reliable possible measurement of CFL retention.

Impact Evaluation: The evaluator will initiate an impact evaluation in 2007 that will provide an analysis of actual realized savings per ENERGY STAR new home, based on homes constructed in 2006-2007. This effort will include a field survey to characterize the building and occupant characteristics of ES new homes in the region, and may include sub-metering of homes with heat pumps. It is assumed that the Residential New Construction Building Characteristics Study will serve as a baseline for this impact evaluation.

Table 2

	2007	2008	2009
Process Evaluation/ Market Characterization	X	X	X
Homebuyer Survey		X	
Builder Survey		X	
Market Actor Interviews	X	X	X
Post-Occupancy Survey	X		
Impact Evaluation	X→→	→X	

For the funding period of 2007 through 2009, the estimated evaluation budget for ES New Homes is \$800,000.

	2007	2008	2009	Total 2007-2009
ES Homes				
Market Progress	\$125K	\$125K	\$50K	\$300K
Impact	\$250K	\$250K		\$500K
Total	\$375K	\$375K	\$50K	\$800K

Contracts.

This project is part of the Residential Project Management Contract (PMC) which was competitively bid in late 2003 and awarded to PECI in 2004 and extended through 2006. While implementation of a majority of the project is through the PMC contract, the Alliance contracts with each of the state energy offices (ODOE, WSU, IED and NCAT) to implement the certification and quality assurance components. Current contracts run through 12/31/06. The Fixture Pilot Program funding for 2007 and 2008 of \$80,000 will be combined with Bonneville funding and competitively bid separately.¹¹

Contractor Qualifications.

¹¹ See page 2 of Appendix C: ENERGY STAR Fixture Pilot in New Construction.

Staff recommends a competitive bid of the PMC work through 12/31/09. Staff recommends extending the sole source contracts of the state certification organizations (ODOE, WSU, IDWR and NCAT) on an annual basis. These state agencies are uniquely qualified to provide credible quality assurance and local technical expertise and code integration. The nature of these contracts is such that fees collected from market actors for certification and QA of homes and for training are supplementing and will eventually replace Alliance funding.

Alliance Internal Resource Requirements.

Internal resources required to manage this project are estimated to be approximately 1.0 FTE. These resources are assumed to be available within current staffing levels approved by the Board.

Local Utility Coordination.

This initiative assumes a high degree of coordination with local utilities and is designed accordingly. It is also designed to work with the full range of potential utility interest from full implementation to complete lack of participation. There are a number of areas of utility interaction with this initiative. These include, but are not limited to the following:

Component Element	Potential Utility Interaction
ENERGY STAR [®] Home Verification	Utility could provide inspection services to builders and consumers as desired
ENERGY STAR [®] cooperative marketing & promotion	Utilities can cooperatively fund marketing with local builders and Alliance activities
Builder/contractor training and certification	Utilities could co-fund, or incent builders and/or HVAC contractors to attend training and purchase equipment necessary to do PTCS
Builder/Consumer Incentives	Utilities could employ financial incentives based on the energy savings to encourage participation from builders and increase demand from consumers.

Coordination with Other Stakeholders.

There are a number of stakeholders engaged in this market. First, the state energy offices and similar entities (Idaho Department of Water Resources Energy Division (IDWR), Montana Department of Environmental Quality, National Center for Appropriate Technology, Oregon Department of Energy, and Washington State University Energy Program,) have been working with the national level Energy Star program as well as the regional Energy Star manufactured housing.

Additionally, the Alliance is coordinating with the EPA and RESNET (Residential Energy Services Network) to ensure the Northwest is aligned with national programs and is up to date on new national developments. Each of the State Certification Organizations are RESNET approved providers. The Alliance and CSG are RESNET members as well.

Appendix A. Cost-
Effectiveness

Energy Star New Site-built Single Family Homes

Project Number:	C04-XXX
Sector:	Residential
Market:	Residential
Stage:	Converted
Analysis Unit:	Weighted Avg. Estar Home

Creation Date: March 3, 2006

ProCost Ver. ProCost 1.72

Run Date: 6/23/06 7:45 AM

Analyst: Jeff Harris

Project Start: 2003

Project End: 2015

Energy Efficiency Measures			Weighting in 2015	Load Shape
Measure 1:	Heat Pump	Site-Built Home	24.8%	ResSHNEW
Measure 2:	Zonal Elec	Site-Built Home	12.1%	ResSHNEW
Measure 3:	Gas + AC	Site-Built Home	26.2%	ResSHNEW
Measure 4:	Gas (No AC)	Site-Built Home	32.5%	ResSHNEW
Measure 5:	MEF-1.86 (Regio	ES Clotheswasher	1.4%	ResSHNEW
Measure 6:	Package	100% CFL	2.9%	ResSHNEW
Measure 7:	0	0	100.0%	ResSHNEW

Summary		
TOTAL RESOURCE COST	Project End	2015
CE Index	1.8	1.8
Levelized Cost (cents/KWh)	(1.93)	(1.93)
CUMULATIVE ENERGY SAVINGS	Project End	2015
Alliance aMW	13.7	13.7

Breakeven Results (Total Resource Cost)	2015
Maximum Alliance Investment	

Unit First Cost (NPV First Cost)	First Year (avg)	Project End (avg)	2015 (avg)	Weighted
First Year Cost (\$/Unit)	\$ 1,349.26	\$ 1,349.26	\$ 1,349.26	\$ 1,349.26
Replacement Cost (\$/Unit)	\$ 1,349.26	\$ 1,349.26	\$ 1,349.26	
NPV First Cost (\$/Unit)	\$ 2,373.78			

Annual Benefits & Costs	Per Year	
Annual Non-Energy Benefits (\$/Unit-year)	\$ 126.20	Includes natural gas
Annual T&D Benefits (\$/Unit-year)	\$ 22.32	
Annual O&M Costs (\$/Unit-year)	\$ 3.20	

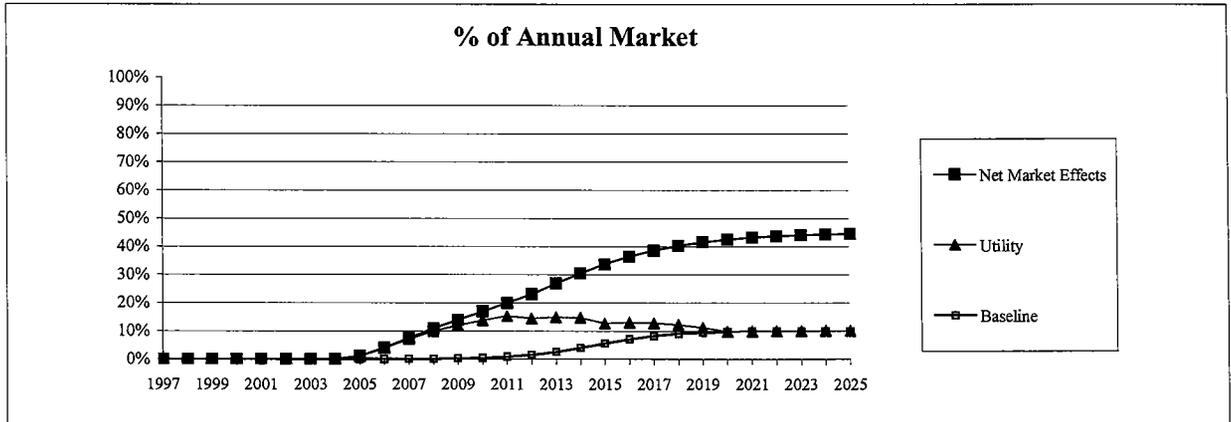
Unit Energy Savings (Weighted 2015)		
Electric	Energy	1,532.9 kWh/year
	Cost	\$ 99.97 @ \$0.065 /kWh
Natural Gas	Energy	132.755 Therms/year
	Cost	\$ 123.478 @ \$0.93 /Therm

Consumer Perspective	Ann. Savings	First Year	Project End	2015
Payback (years) (electric)	\$ 99.967	13.50	13.50	13.50
w/Non-Energy-O&M	\$ 222.961	6.05	6.05	6.05

Energy Star New Site-built Single Family Homes

Summary Page 2

Market: Residential



New Efficient Units Installed Each Year & Total Regional Energy Savings

Year	Market Units/year	Total Efficient Units/year	Retired Efficient Units/year	Net Efficient Units/year	Net Energy Savings aMW/year	Cumulative Regional Energy Savings aMW
1997	60,547	-	-	-	-	-
1998	57,342	-	-	-	-	-
1999	56,810	-	-	-	-	-
2000	52,336	-	-	-	-	-
2001	54,587	-	-	-	-	-
2002	60,547	-	-	-	-	-
2003	65,907	-	-	-	-	-
2004	75,410	57	-	57	0.0	0.0
2005	82,951	988	-	988	0.2	0.2
2006	86,145	3,500	-	3,500	0.6	0.8
2007	89,461	6,700	-	6,700	1.2	2.0
2008	92,905	10,220	-	10,220	1.8	3.8
2009	96,482	13,505	-	13,505	2.4	6.1
2010	100,197	17,033	-	17,033	3.0	9.1
2011	104,054	20,811	-	20,811	3.6	12.7
2012	108,061	24,946	-	24,946	4.3	17.1
2013	112,221	30,258	-	30,258	5.2	22.3
2014	116,541	35,642	-	35,642	6.1	28.5
2015	121,028	40,882	-	40,882	7.0	35.4

Cumulative Net Units & Energy Savings by Participant

Year	Baseline		Utility, PBA & Others		Net Market Effects	
	Cumulative Units	aMW/year	Cumulative Units	aMW/year	Cumulative Units	aMW/year
1997	-	-	-	-	-	-
1998	-	-	-	-	-	-
1999	-	-	-	-	-	-
2000	-	-	-	-	-	-
2001	-	-	-	-	-	-
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	8	0.0	48	0.0	1	0.0
2005	24	0.0	1,014	0.2	7	0.0
2006	55	0.0	4,310	0.8	180	0.0
2007	117	0.0	10,616	1.9	512	0.1
2008	240	0.0	19,703	3.4	1,522	0.3
2009	483	0.1	30,976	5.4	3,511	0.6
2010	955	0.2	44,225	7.7	6,823	1.2
2011	1,855	0.3	59,158	10.4	11,801	2.1
2012	3,513	0.6	73,131	12.8	21,116	3.7
2013	6,405	1.1	86,814	15.1	34,799	6.1
2014	11,060	1.9	99,209	17.2	53,391	9.3
2015	17,841	3.1	107,734	18.7	78,967	13.7

Totals

6/23/2006

Energy Star New Site-built Single Family Homes

Summary Page 3

Cum. Energy Savings, Peak, & Carbon				
Baseline		Project End	2015	2025
aMW		3.1	3.1	26.7
MWpeak (Local only)	.3872 kWp/Unit	0.1	6.9	61.4
Carbon Dioxide (tons)	4,012 tons/aMW	12,403	12,403	106,990
Local Utilities		Project End	2015	2025
aMW		18.7	18.7	21.4
MWpeak (Local only)	.3872 kWp/Unit	7.6	41.7	49.4
Carbon Dioxide (tons)	4,012 tons/aMW	74,897	74,897	86,027
Alliance		Project End	2015	2025
aMW		13.7	13.7	92.6
MWpeak (Local only)	.3872 kWp/Unit	0.6	30.6	213.3
Carbon Dioxide (tons)	4,012 tons/aMW	54,898	54,898	371,491

Cum. Energy Savings Regional Total		Project End	2015	2025
aMW (Regional savings)		35.4	35.4	140.7
MWpeak (Local only)	.3872 kWp/Unit	8.3	79.2	324.2
Carbon Dioxide (tons)	4,012 tons/aMW	142,198	142,198	564,507

Cost Effectiveness Metrics		Project End	2015
Total Resource Cost			
CE Index		1.8	1.8
Levelized Cost (Cents/kWh)		(1.93)	(1.93)
Alliance Perspective			
C/E Index		13.9	13.9
Levelized Cost (Cents/kWh)		(0.99)	(0.99)

Levelized Cost based on 4% & 15 yrs, T&D & non-energy benefits negative costs.

6/23/2006

Energy Star New Site-built Single Family Homes

Summary Page 4

Year	Period	Alliance costs				Utility, PBA & Other Costs				Other Supporting Organizations	Consumer Costs Net of Utility Incentives	Total Region Costs
		Administration	Distribution Incentives	Contract	Other	Evaluation	Direct Utility Incentives	Utility Admin				
1997		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1998		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1999		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2001		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2002		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2003	Venture	\$ 50,000	\$ -	\$ 325,000	\$ -	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ -	\$ 2,384,771
2004	Venture	\$ 100,000	\$ -	\$ 1,879,812	\$ 150,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 138,785	\$ 4,278,368
2005	Venture	\$ 100,000	\$ -	\$ 2,392,207	\$ 100,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 2,322,192	\$ 6,924,170
2006	Venture	\$ 100,000	\$ -	\$ 2,565,000	\$ 300,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 8,226,389	\$ 13,201,160
2007	Venture	\$ 100,000	\$ -	\$ 2,610,000	\$ 375,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 15,747,659	\$ 20,842,429
2008	Venture	\$ 100,000	\$ -	\$ 2,390,000	\$ 375,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 24,021,055	\$ 28,895,826
2009	Venture	\$ 100,000	\$ -	\$ 2,240,000	\$ 50,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 31,742,109	\$ 36,141,880
2010	Venture	\$ 100,000	\$ -	\$ 2,000,000	\$ 75,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 40,034,309	\$ 44,219,080
2011	Venture	\$ 100,000	\$ -	\$ 1,750,000	\$ 50,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 48,914,108	\$ 52,823,879
2012	Venture	\$ 100,000	\$ -	\$ 1,500,000	\$ 350,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 54,736,041	\$ 58,695,812
2013	Venture	\$ 100,000	\$ -	\$ 1,000,000	\$ 300,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 64,320,959	\$ 67,730,730
2014	Venture	\$ 100,000	\$ -	\$ 1,000,000	\$ 50,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 72,831,746	\$ 75,991,517
2015	Venture	\$ 100,000	\$ -	\$ 1,000,000	\$ 50,000	\$ -	\$ 2,009,771	\$ -	\$ -	\$ 2,009,771	\$ 80,150,882	\$ 83,310,652
	Totals	\$ 1,250,000	\$ -	\$ 22,652,019	\$ 2,225,000	\$ -	\$ 26,127,019	\$ -	\$ -	\$ 26,127,019	\$ 443,186,233	\$ 495,440,271

* Market Penetration Data Year

BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-06-32

IDAHO POWER COMPANY

EXHIBIT NO. 2

TIMOTHY E. TATUM

DIRECT TESTIMONY

Idaho Power Company
DSM Alternative Cost Calculation
ENERGY STAR® Homes Northwest 2007

Inputs					
Discount Rate	6.930%				
Escalation Rate	3.00%				
Line Losses	10.90%				
	<u>Summer (Jun. 1 - Aug. 31)</u>			<u>Non-summer (Sept. 1 - May 31)</u>	
Costing Periods	<u>On-Peak</u>	<u>Mid-Peak</u>	<u>Off-Peak</u>	<u>Mid-Peak</u>	<u>Off-Peak</u>
Hours per Costing Period	512	960	736	3616	2936
Energy Savings per Costing Period					
ENERGY STAR® Homes NW	14.13%	23.38%	11.47%	32.82%	18.19%

DSM Alternative Cost

Combined Capacity and Energy \$/kWh

Year	<u>Summer (Jun. 1 - Aug. 31)</u>			<u>Non-summer (Sept. 1 - May 31)</u>		
	<u>On-Peak</u>	<u>Mid-Peak</u>	<u>Off-Peak</u>	<u>Mid-Peak</u>	<u>Off-Peak</u>	
2006	\$0.218	\$0.069	\$0.052	\$0.078	\$0.066	
2007	\$0.222	\$0.070	\$0.052	\$0.079	\$0.066	
2008	\$0.216	\$0.066	\$0.048	\$0.069	\$0.056	
2009	\$0.215	\$0.066	\$0.049	\$0.068	\$0.055	
2010	\$0.194	\$0.050	\$0.037	\$0.053	\$0.042	
2011	\$0.195	\$0.056	\$0.041	\$0.054	\$0.043	
2012	\$0.196	\$0.068	\$0.051	\$0.065	\$0.052	
2013	\$0.198	\$0.072	\$0.054	\$0.068	\$0.054	
2014	\$0.200	\$0.074	\$0.056	\$0.070	\$0.056	
2015	\$0.203	\$0.078	\$0.059	\$0.074	\$0.060	
2016	\$0.206	\$0.082	\$0.062	\$0.079	\$0.064	
2017	\$0.209	\$0.090	\$0.067	\$0.086	\$0.070	
2018	\$0.212	\$0.092	\$0.071	\$0.090	\$0.073	
2019	\$0.216	\$0.098	\$0.075	\$0.095	\$0.077	
2020	\$0.219	\$0.103	\$0.079	\$0.100	\$0.080	
2021	\$0.213	\$0.097	\$0.076	\$0.094	\$0.077	
2022	\$0.216	\$0.104	\$0.081	\$0.101	\$0.081	
2023	\$0.220	\$0.109	\$0.085	\$0.106	\$0.086	
2024	\$0.223	\$0.114	\$0.090	\$0.111	\$0.090	
2025	\$0.226	\$0.120	\$0.096	\$0.118	\$0.096	
2026	\$0.220	\$0.124	\$0.099	\$0.122	\$0.098	
2027	\$0.224	\$0.128	\$0.102	\$0.125	\$0.101	
2028	\$0.228	\$0.132	\$0.105	\$0.129	\$0.104	
2029	\$0.231	\$0.135	\$0.108	\$0.133	\$0.108	
2030	\$0.236	\$0.140	\$0.111	\$0.137	\$0.111	
25-Year Present Value (Mid-Year)	\$2.563	\$1.000	\$0.761	\$0.999	\$0.809	
Weighted* DSM Alt. Cost in \$/kWh (includes losses)						<u>Total</u>
ENERGY STAR® Homes NW	\$0.402	\$0.259	\$0.097	\$0.364	\$0.163	<u>\$1.2846</u>

Notes:

* DSM Alternative Costs are weighted by the percentage of energy that is expected to occur within each costing period according to the values shown in the Inputs section under the heading "Energy Savings per Costing Period."