BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE LANGLEY GULCH POWER PLANT.	)	CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

DIRECT REBUTTAL TESTIMONY

OF

MICHAEL MACE

Q. Please state your name, address, and employment.

A. My name is Michael Mace. I am an independent consultant. My address is 3416 Leland Street, Rocklin, California 95765. I have over thirty years experience in the electric utility industry, working for both public and private electric utilities as well as the California ISO. My resume is attached as Exhibit No. 12.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Idaho Power Company. I have been engaged by the Company since February 2009 to assist in their economic and load forecasting process.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to comment and correct some of the assertions made by witnesses Yankel and Mitchell with regards to economic conditions and economic growth in the Idaho Power Company ("Idaho Power" or "Company") service area as well as recent Company load forecasts. I will also evaluate some of their assertions by referencing Idaho Power's recently acquired macroeconomic forecast from Moody's Inc.

Q. What is your response to Mr. Yankel's claim on page 2 of his testimony that the Company's decision to build Langley Gulch is based upon outdated information?

A. Mr. Yankel goes to great lengths to criticize Idaho Power's forecasting process without addressing one of the central issues: The timing of these forecasts with regard to lead time requirements of the planning process. It is quite easy to criticize forecasts that do not include the very most recent information, given that hindsight is an exact science. The issue here is that Idaho Power, like any other utility with significant lead time requirements for power plant construction, is engaged in decision making under uncertainty.

The construction of power plants requires forecasts based on reasonable assumptions and practices. Load forecasts must accommodate the necessary lead times required for the siting and construction of new generation. As per the testimony of Company witness Vern Porter, Idaho Power was required to reserve and pay reservation fees for critical equipment well in advance of when the Company would otherwise choose to commit itself in order to bring Langley Gulch on-line in time to meet the resource requirements that were forecast at that point in time.

My review of the Company's August 2007, August 2008, and May 2009 load forecasts leads me to conclude that these forecasts were reasonable, especially in light of the rapid economic growth experienced in the Idaho Power service area over the last decade. Since the August 2008 load forecast, economic conditions have worsened considerably, but last fall's credit crisis and subsequent shock to the "real" economy were outside the boundaries of "reasonable forecasts," i.e., it was an event that could not have been forecast to occur, not even in a worst case planning scenario. The few economists who did forecast last fall's events were considered extremist or delusional.

Q. Shouldn't Idaho Power have anticipated the economic downturn that occurred last fall?

A. The financial panic that occurred during the fall of 2008 changed everyone's assessment of the short-term economic performance for Idaho, the U.S., as well as most every other country worldwide. Very few professional economists, including the macroeconomic forecasting services such as Global Insight and Moody's, nor the Idaho State Division of Financial Management ("DFM") had forecast the severity of the economic downturn that began last fall. This is demonstrated in Mr. Yankel's testimony in his discussion of the ratcheting down of the DFM economic

forecast for the state of Idaho. To illustrate how recently the DFM forecast has changed, I have prepared Exhibits Nos. 13 and 14, which compare recent DFM forecasts of employment and housing stock additions for the state of Idaho.

Q. What about the assertion that Idaho Power's forecasts did not incorporate the worsening economic conditions?

A. Idaho Power's load forecasts progressively reflected a slowing economy in the Idaho Power service area. Exhibit No. 15 shows a comparison of the different Company forecasts of residential customers over the period of August 2005 through December 2008. Clearly, the Company forecasts were incorporating the most recent information available with regards to the slowing housing market, but do not reflect the severity of the crash that occurred last fall. In fact, the graph demonstrates that the 2006 IRP forecast initially under-forecast the residential customers being added to the system.

Q. What changes were made to the Company's recent May 2009 load forecast revision?

A. The May 2009 forecast revision was based on the December 2008 forecast, which substantially reduced customer growth for both the residential and commercial

classes. In fact, the May 2009 residential customer forecast is currently under-predicting the residential customers recently added to the Idaho Power system. The May 2009 forecast also incorporates the latest changes to Idaho Power's special contract industrial customers and is about 555,000 MWh lower for 2009 than the forecast made in August 2008. It is my understanding that the May 2009 forecast revision is the basis for the load/resource balance presented by Company witness Bokenkamp in this proceeding.

Q. Do you think that the May 2009 load forecast does a better job of representing the impact of the recession on forecasted loads for Idaho Power?

A. Compared to both the August 2008 forecast and the December 2008 forecast, the May 2009 revision more accurately reflects the short-term impacts of the current recession.

Q. Does the current recession mean that rapid economic growth will no longer occur in southern Idaho?

A. No. There is no doubt that economic conditions are slow right now, but even the most recent DFM forecast, referenced by Mr. Yankel in his testimony, shows a recovery beginning later this year and continuing through 2010, 2011, and 2012.

Q. What is the basis for the expectation of renewed economic growth in southern Idaho?

A. Southern Idaho has many economic advantages compared to many other areas. First and foremost, Idaho has relatively low costs for both consumers and businesses. There are a lot of other amenities in the Idaho Power service area that attract people from all over the country. Boise is regularly feted in national magazines as one of the best places to live. It may be the case that the traditional "people-follow-jobs" thinking is more the case of "jobs-following-people" for Idaho. The result of these differences is that Idaho Power's service area population growth rate has grown at two and one-half times the national average rate over the last twenty years, much of that due to in-migration from other states.

Considering the current economic and legislative troubles in California, there could be a significant increase in out-migration from California. While in-migration has played a significant role in Idaho's growth, the near term could see ever higher in-migration to Idaho, higher than that forecast by the most recent Global Insight forecast cited in Mr. Yankel's and Ms. Mitchell's testimonies.

While Idaho's economy more closely resembles the national economy now as opposed to twenty-five years ago, it is certainly not immune from recession. It is quite possible that the Idaho Power service area could grow rapidly even if the rest of the country is not doing well. Attached as Exhibit No. 16 is a recent article from the Idaho Statesman. The article quotes Addison Franz, a Moody's economist, stating that Idaho may lead the country out of the current recession. Both myself and other Idaho Power personnel have had discussions with Ms. Franz about the Boise MSA and Idaho economic forecasts.

Q. Both Ms. Mitchell and Mr. Yankel criticize the Company's load forecasts for failing to reflect the worsening economic conditions as a result of the national recession. Do their criticisms have merit?

A. In Ms. Mitchell's direct testimony on page 5 she states:

> Without reviewing the underlying key demographic and economic indicators that drive IPCs' PR 84 2009 IRP, it is not possible to determine the extent to which the more current load forecast reasonably reflects the near- and possibly longer-term effects of the current recession. However, on the face of it certainly does not appear that the Company has

> not adjusted its 2009 IRP load forecast per Staff Production Request #84 or any other previous load forecasts to reflect the current recession.

Not only does witness Mitchell admit that she has not reviewed "the underlying key demographic and economic indicators" that drive the 2009 IRP forecast, she has also failed to review and understand some of the key drivers of the individual load forecasts. The conclusions she attempts to develop in her Exhibit No. 207 are misleading and misrepresent facts.

In Exhibit No. 207, Ms. Mitchell tabulates Idaho Power's system average load (70th percentile) and system peak demand (95 percentile) forecasts for the 2006 IRP, August 2007, and August 2008. She also reports the monthly differences between the more recent August 2008 forecast and the August 2007 and August 2006 forecasts. The point she is attempting to make is that Idaho Power has not sufficiently adjusted its load forecasts downward as much as she thinks they should have been due to the economic conditions that have changed over the past several years. What she has failed to consider are the load impacts that one customer, Hoku Materials, Inc., has had on the forecasts of system load and system peak demand that she is reporting in Exhibit No. 207. Prior to making her

suppositions and drawing misleading conclusions concerning the load forecasts, she should have made an effort to understand the composition of the load forecast figures being reported.

Mr. Yankel, in his testimony, makes the same mistakes as witness Mitchell. In his table on page 19 of his testimony labeled "Ave MW Forecasted at Different Times," Mr. Yankel reports the monthly differences in 2009 between the 2006 IRP, 2008 IRP Update, 2009 IRP, and December 2008 forecasts and compares the difference between the December 2008 and 2006 IRP forecasts. The conclusions he attempts to develop in his table are also misleading and misrepresent facts.

Like Ms. Mitchell, Mr. Yankel does not include the loads of Hoku Materials, Inc., in the 2006 IRP load forecast; however, in the August 2007 forecast, Hoku's forecast for 2013 was 40 aMW and 46 MW peak demand. In the August 2008 forecast, Hoku's average load and peak demand forecast nearly doubled from the August 2007 forecast and for 2013 was 77 aMW and 87 MW peak demand. Hoku's impact on the consecutive load forecasts is significant, representing approximately one and one-half years of typical Idaho Power system load and peak demand growth.

I have prepared Exhibit No. 17 which is a table showing how the Hoku forecast has changed over successive load forecasts. This table illustrates how the inclusion of Hoku energy sales (in aMW) and peak demand (MW) figures impacted the consecutive system forecasts. When the Hoku figures are subtracted from the sales forecasts, it is evident that each of the consecutive load forecasts is lower than the previous forecast (see Exhibit No. 18).

Exhibit No. 18 illustrates another point - that the August 2008 load forecast did incorporate a near-term recession. The load forecast that was prepared in August 2008 forecasts that 2009 system electricity sales (in MWh), excluding Hoku, would only be 0.3 percent higher than 2008.

Q. You described the load impact of Hoku as a new customer. Are there other new customers that influence the forecast?

A. Generally speaking, new potential customers contact Idaho Power as part of a larger site location process, whereby many locations, including locations outside of the Idaho Power service territory are under consideration. This process can take many years and can be influenced by many intervening factors, including market conditions and operational requirements which are the drivers of microeconomic forecasting. Thus, while

representing significant potential load increase, it is uncertain load.

A key determinant for significant large-load customers is power availability and reliability. This is illustrated in Exhibit No. 19, which is a presentation made on September 10, 2008, by Mr. Don Dietrich, Director, Idaho Department of Commerce, to the Integrated Resource Planning ("IRP") Advisory Council. A key issue salient to economic development and power supply made by Mr. Dietrich was as follows:

> Adequate power is not always available in the company's timelines.

The "company" referred to by Mr. Dietrich is a prospective new large load customer for Idaho Power. This "Catch-22" of power availability represents uncertainty not only to prospective customers but to Idaho Power forecasts of future load. The ironic nature of such a "Catch-22" is inherent in Ms. Mitchell's and Mr. Yankel's testimonies. Through the misapplication via a broad brush of macro-economic doom and gloom they have concluded that future growth is negative, yet, by constraining the obvious impacts of the microeconomic elements such as the need for adequate new power supply, their forecast becomes a self-

fulfilling prophecy by driving new customers to locations outside of southern Idaho.

Given the uncertainty of new power supply, Idaho Power forecasters have excluded over 700 MW of active new customers' potential load inquiries in its forecast.

Q. Have all classes of Idaho Power customers experienced declines over the recent past?

A. While most customer classes have declined in either customer growth and/or energy use, weather adjusted electricity sales to the irrigation class have surged over the last two years. I have prepared Exhibit No. 20 which presents the historical and weather-adjusted sales as well as the May 2009 forecast for 2009 irrigation sales. As can be seen from the table, sales for the 2009 forecast year are substantially lower than 2008 actual sales and may need to be revised considerably upwards.

Q. Please respond to Ms. Mitchell's argument that recent economic conditions have worsened in the Idaho Power service area.

A. I have no disagreement with Ms. Mitchell's short-term observations. But I believe that she needs to be careful in the manner in which she cites the types of statistics she uses in her testimony. Ms. Mitchell also makes some questionable assumptions for the economic

recovery of the Idaho Power service area and continued load growth therein.

Both Ms. Mitchell and Mr. Yankel use the April 2009 DFM State of Idaho forecast as a proxy for economic conditions in the Idaho Power service area. This is not an "apples-to-apples" comparison. The significant majority of economic growth in Idaho over the last twenty years took place within the Idaho Power service area and, in particular, in the Boise Metropolitan Statistical Area ("MSA"). The DFM analysis is for the entire state, which includes many slow-growing rural areas outside the Idaho Power service area which have significantly different economic characteristics.

I have included Exhibit No. 21 which demonstrates this growth differential as well as various population statistics. It shows various geographic aggregations as well as population totals. Most importantly, it shows that the Boise MSA has doubled over the 1988-2008 time period and represents nearly 80 percent of the Idaho population growth for that period. This has resulted in very rapid load growth. Energy use for the Idaho Power service area averaged over 2.5 percent per year for the 1988-2008 period, well above the national average of 1.8 percent per

year for energy for the same period according to the Energy Information Administration ("EIA").

Q. Does Idaho Power have an economic forecast comparable to the April 2009 DFM forecast cited in both Mr. Yankel's and Ms. Mitchell's testimonies?

A. Yes. Idaho Power contracted with Moody's in April 2009 to provide macroeconomic forecast data for Idaho counties as well as the two major MSAs in the Idaho Power service area - Boise and Pocatello. The Boise MSA is responsible for a significant portion of the population growth in the Idaho Power service area and, excluding the irrigation sector, represents 50 percent of the Company energy sales. I will therefore focus on the results of the May 2009 Moody's forecast for the Boise MSA and compare that to the assertions of a slow economic recovery made by Ms. Mitchell and Mr. Yankel.

Q. How does the Moody's forecast for the Boise MSA compare to Ms. Mitchell's claims of a very slow economic recovery?

A. Ms. Mitchell chooses her economic statistics very carefully to paint a very slow recovery for the Idaho Power service area economy. For example, she states on page 14 of her testimony that the construction sector is the "greatest contributor to Idaho's stagnant GSP (Gross

State Product)" without mentioning that this sector represents only 5-6 percent of the entire Idaho GSP in 2007-08. She goes on to state that housing starts contribute to load growth without connecting the relationship between housing starts, housing stock, residential customers, households, and residential energy sales. Many of these housing starts during recent years became, in fact, unoccupied houses, which Idaho Power still counts as residential customers. Empty housing units generally use considerably less electricity than occupied ones.

As far as the forecast of housing starts, she states on page 12 of her testimony "the levels (of housing starts) recorded in 2006 are not expected to return by the end of 2011." Besides my earlier comments on unoccupied housing units, the problem here is that she uses one of the years considered to be part of the "housing bubble," a year where the housing market was characterized by rampant speculation and over-building. I have attached Exhibit No. 22 that shows a graph of housing starts for the Boise MSA that clearly demonstrates the "housing bubble." It is unlikely that the Idaho Power service area will see a return to speculative building of large numbers of unoccupied housing units for quite some time. Yet the graph, based on the

Moody's forecast for the Boise MSA, shows a return to a robust level of residential customer growth similar to that which existed before the "bubble" years of this decade.

Q. Does this mean that there will not be increases in residential energy sales over the next few years because there will be many fewer housing starts?

A. Not necessarily. Idaho Power estimates that there are a substantial number of residential customer accounts which are actually unoccupied housing units with very little energy use. As a result, the weather-adjusted residential use per customer has declined recently. However, it is likely that residential energy use will increase over the near term even without new houses being built. Due to occupation by native and in-migration household growth, the present vacant housing units will shift from minimal maintenance level of use to occupied consumption levels and the average residential use per customer will increase. This will increase residential energy sales over the next few years without an equivalent increase in housing stock/starts, all of this the result of over-building from the housing bubble.

Q. What about the income per capita graph shown on page 13 of Ms. Mitchell's testimony that shows a rather flat economic recovery for Idaho?

A. Once again, Ms. Mitchell uses a number for the entire state of Idaho as a proxy for the Idaho Power service area. A more representative number for the Idaho Power Service area would be the Moody's forecast of income per capita growth for the Boise MSA. My Exhibit No. 23 shows the May 2009 Moody's forecast of income per capita for the Boise MSA and Idaho. The Moody's forecast for the state of Idaho shows a pattern similar to Ms. Mitchell's exhibit. However, the Boise MSA shows a robust recovery that significantly exceeds the state growth rate conveyed by Ms. Mitchell's exhibits (1.5 percent growth for the state of Idaho vs. 4.4 percent for the Boise MSA). I might also add that there is a noticeable difference between the level of income per capita for the Boise MSA versus the level for Idaho as a whole. If one were to remove the contribution of the higher Boise MSA income per capita to the state of Idaho numbers, the difference would be even more pronounced. Here I agree with Ms. Mitchell's testimony; energy use is clearly correlated with incomes and is something to be considered in load forecasts.

Q. Are there other relevant economic variable comparisons from the recent Moody's forecast?

A. Yes. Ms. Mitchell discusses the slow recovery from this recession to previous employment levels

as per the DFM forecast. On page 16 of her testimony, the graph shows Idaho employment in 2011 substantially below the levels of 2007. It is common knowledge that employment is a lagging indicator in the business cycle. Once again, there is a significant difference between the state of Idaho numbers and the Idaho Power service area. My Exhibit No. 24 shows the Moody's forecast of total non-agricultural employment for the Boise MSA. While there are certainly lingering effects on employment from this recession, the forecast for the Boise MSA once again is much more robust than that for the state of Idaho as per the DFM forecast.

A better indicator of economic recovery and associated growth in demand for energy would be the Gross Output measure or what is referred to as Gross State Product ("GSP") on page 14 of Ms. Mitchell's testimony. I have attached as Exhibit No. 25 a graph of the Moody's forecast of Gross Output for the Boise MSA. This demonstrates an earlier recovery to the current recession followed by a continuation of the growth trend prior to the current recession.

Q. Does the Moody's forecast fall within the reasonable consensus of economic forecasters?

A. Yes. In many ways the Moody's and the DFM forecasts for Idaho as a whole are very similar. Many

economists expect a recovery to begin in the latter half of 2009. Moody's is not forecasting anything radically different for the state of Idaho compared to the DFM forecast. However, broad generalizations for the entire state can lead to faulty conclusions when looking at the Idaho Power service area economy.

Q. How do you respond to Ms. Mitchell's concerns regarding Idaho Power's winter peak?

A. It is my understanding that Idaho Power is capacity constrained in the summer and is not adding resources to meet winter peak. This is exemplified in the fact that in 2008, Idaho Power's all-time system winter peak was exactly 750 MW lower, roughly 25 percent, than its all-time summer peak. Idaho Power had a much more pronounced winter peak 20-30 years ago when a much larger share of the service area housing stock relied on electric space heating. In fact, Idaho Power had annual system peaks in the winter for both 1989 and 1993. With the increasing share of natural gas space heating and water heating in homes, it is doubtful that Idaho Power will experience a winter peaking problem in the future.

Q. Why will natural gas space heating continue to dominate the Idaho Power service area in the future?

A. It appears that the predominance of gas space heating in the Idaho Power service area will continue for the foreseeable future. Given the significant additions to domestic natural gas reserves over the last few years, natural gas should maintain the cost advantage that it currently enjoys over electric space heating. When natural gas prices reached $15/MMbtu in the forward gas markets in late 2005, many people assumed that this indicated "peak gas" and that these types of prices would continue into the indefinite future due to the lack of reserves. This now appears unlikely.

The Idaho Power service area cannot be compared to most utilities in the Pacific Northwest. Those utilities located west of the Cascades have a significantly different climate that results in winter peaks. These winter peaks are the result of high saturations of electric space heating and much less use of summer air conditioning. Since Idaho Power is not building capacity to satisfy winter peak and natural gas space heating is likely to dominate the Idaho Power service area for the foreseeable future, it is very likely that programs targeted at winter peak would not be cost-effective for Idaho Power.

Q. Does this conclude your testimony?

A. Yes it does.

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CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

MACE, DI REB
TESTIMONY

EXHIBIT NO. 12

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Education:

1975 B.A. Economics, University of California, Berkeley
1977 M.A. Economics, University of California, San Diego

Professional Experience

1977-1979 Economic Analyst, Pacific Gas & Electric, San Francisco, Ca
Electricity and Natural Gas Forecasts, California Economic forecasts

1979-1986 Senior Economic Analyst, Idaho Power Company, Boise, Idaho
Electricity and economic forecasts for Southern Idaho, consumer survey/market research, expert witness in avoided cost and rate regulation hearings

1981-1982 Adjunct Instructor in Economics – Boise State University

1986-1999 Senior Economist, Northern California Power Agency, Roseville, Ca
Long term and operational electricity forecasts, demand side and conservation analysis, Super Efficient Refrigerator Program (SERP), customer marketing surveys, regional macroeconomic assessments, California electric deregulation policy evaluation

1999-2000 Market Monitoring Analyst , California ISO, Folsom, Ca
Analysis of market participant bidding behavior, market power evaluations for the energy, capacity, and transmission markets

2000-2006 Senior Economist, Northern California Power Agency, Roseville, Ca
Economic analysis of wholesale electricity and natural gas markets, recommendations for the buying/selling of long-term and short-term electricity and natural gas contracts. Analysis of regional power markets, macroeconomic conditions, and national/regional natural gas markets. Risk management.

2002-present Professor of Economics, Sierra College, Rocklin, Ca

February 2009 to Present: Consultant, Idaho Power Company

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CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

MACE, DI REB TESTIMONY

EXHIBIT NO. 13

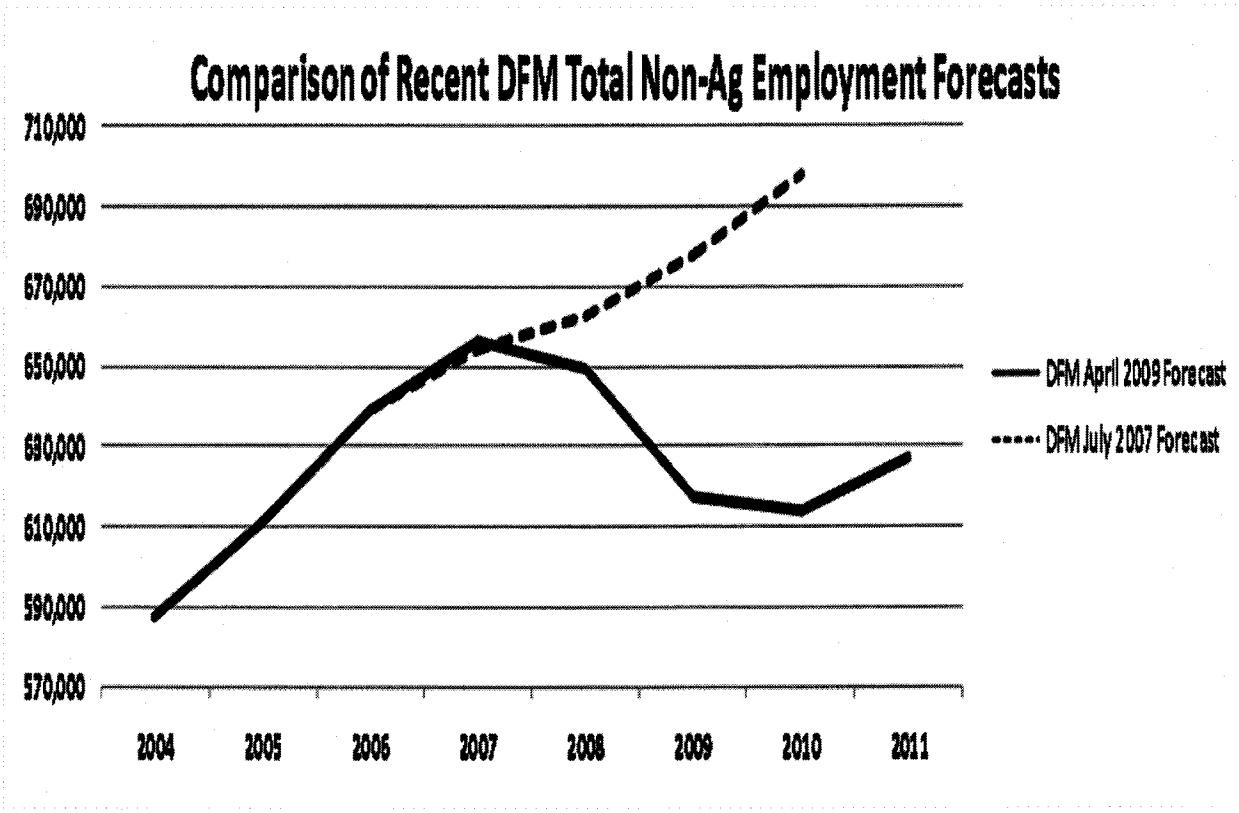

Exhibit No. 13
Case No. IPC-E-09-03
M. Mace, IPC
Page 1 of 1

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

MACE, DI REB TESTIMONY

EXHIBIT NO. 14

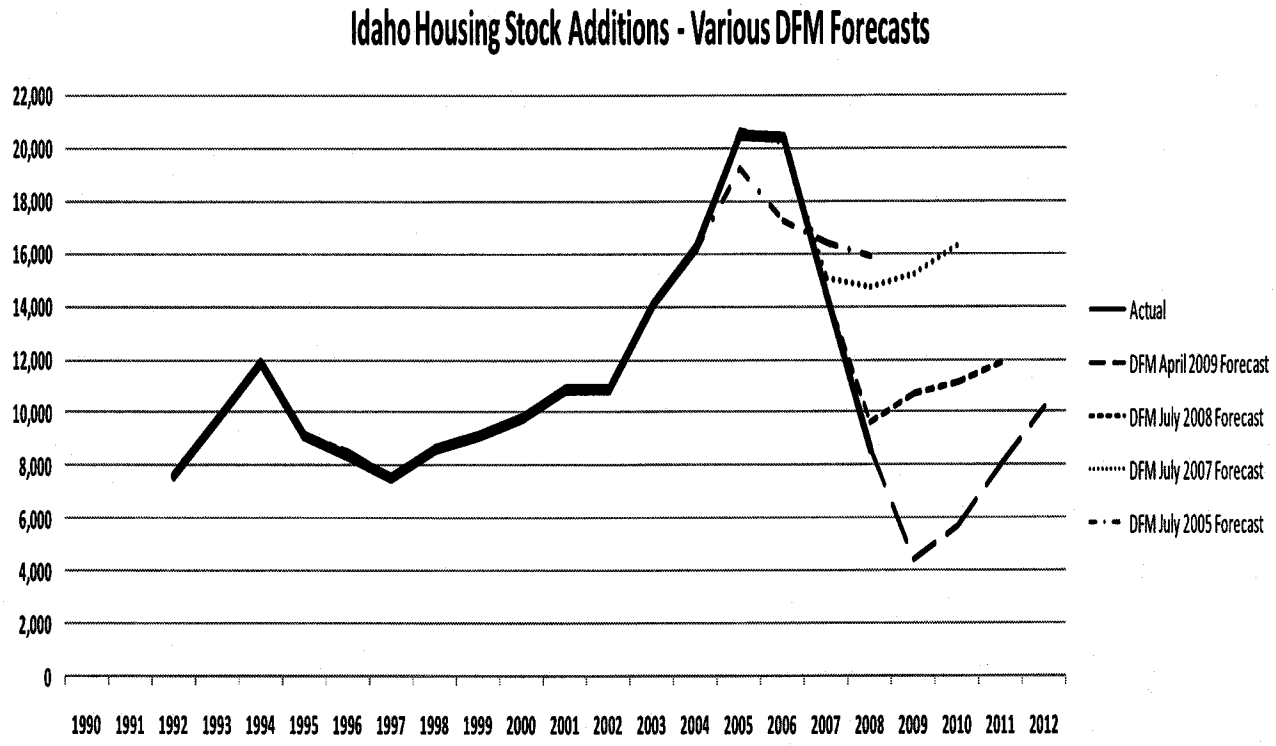

Exhibit No. 14
Case No. IPC-E-09-03
M. Mace, IPC
Page 1 of 1

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

MACE, DI REB TESTIMONY

EXHIBIT NO. 15

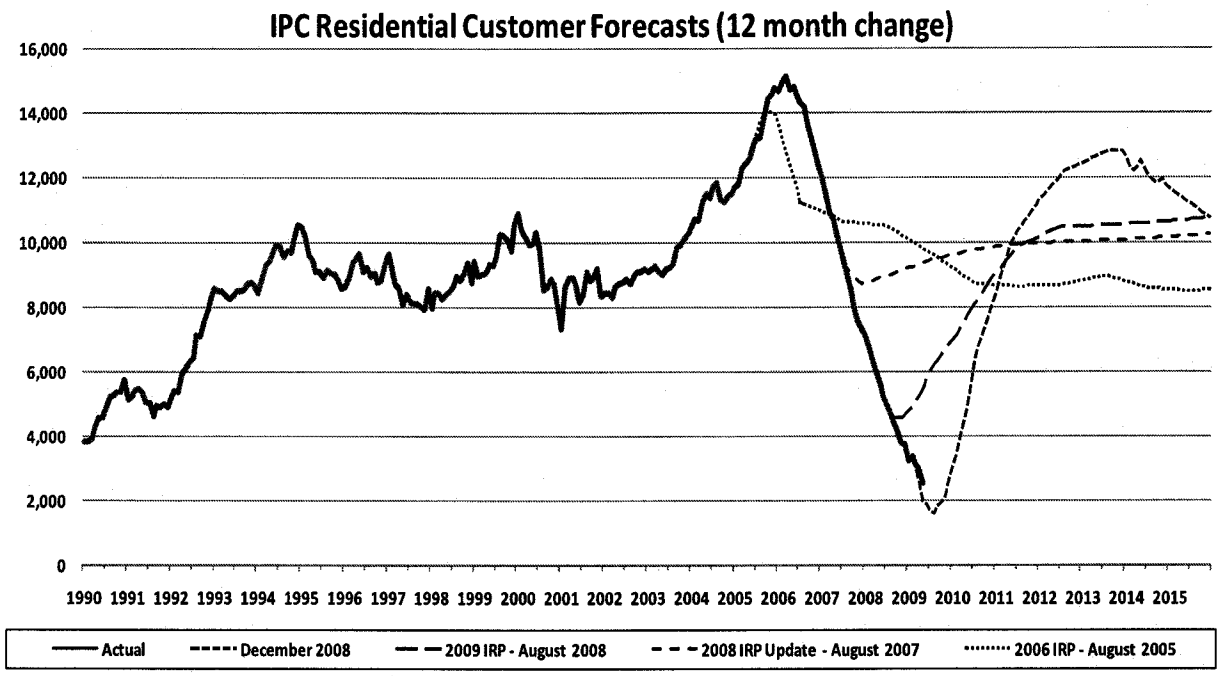

Exhibit No. 15
Case No. IPC-E-09-03
M. Mace, IPC
Page 1 of 1

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-09-03

IDAHO POWER COMPANY

MACE, DI REB TESTIMONY

EXHIBIT NO. 16