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REPORT NAME:	2014 Greenho	ouse Gas Report	
COMPANY NAME:	Idaho Power (	Company	
If yes, please s	submit only the	IDENTIAL INFORMATION cover letter electronically. he terms of an applicable pro	Submit confidential information
If known, please selec	et designation:	RE (Electric) ☐ RG (C	Gas) RW (Water)
Report is required by:	OAR Statute Order Other	860-085-0050	
Is this report associate If Yes, enter de		fic docket/case? 🛛 No	Yes
Key words:			
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LISA D. NORDSTROM Lead Counsel Inordstrom@idahopower.com

June 25, 2014

Attention: Filing Center
Public Utility Commission of Oregon
550 Capitol Street NE, Suite 215
P. O. Box 2148
Salem, OR 97308-2148

Re: Idaho Power Company's 2014 Greenhouse Gas Report

Dear Sir or Madam:

Idaho Power Company herewith transmits for electronic filing its 2014 Greenhouse Gas Report pursuant to OAR 860-085-0050. If you have any substantive questions, please call Scott Wright at 208-388-5493.

Very truly yours,

Lisa D. Nordstrom

Lin D. Madstrom

LDN:kkt

Enclosure

# <u>IDAHO POWER COMPANY'S</u> 2014 OREGON GREENHOUSE GAS REPORT

#### Summary

Pursuant to OAR 860-085-0050, Idaho Power Company ("Company") is required to submit a report that estimates the rate impact for reaching a goal of greenhouse gas emissions in 2020 which are 10 percent less than 1990 levels and 15 percent less than 2005 levels. The Company's total system historical emission levels and 2020 target levels are shown in *Figure 1*.

# Figure 1

Year	Total System - CO <sub>2</sub> (tons)
1990 Emission Levels	7,598,952
2005 Emission Levels	8,067,721
10% below 1990 Emission Levels	6,839,057
15% below 2005 Emission Levels	6,857,563

To perform this analysis, the Company used the results of its 2013 Integrated Resource Plan ("IRP") to determine the 2020 emission levels, which are shown in *Figure 2*.

## Figure 2

Year	Total System - CO <sub>2</sub> (tons)
2020 Emission Levels - 2013 IRP	6,296,014

As can be seen in *Figure 2*, the 2020 emission levels determined from the 2013 IRP are below the target levels shown in *Figure 1*; therefore no additional reductions in carbon emission are required to meet either the 10 percent target or the 15 percent target. In the 2012 Oregon Greenhouse Gas Report, the Company reported that the estimated 2020 emission levels determined from the 2011 IRP were 6,989,568 tons, which would have required a small reduction in carbon emission levels, and a corresponding rate impact to customers. A comparison of the results determined from the two IRPs follows.

### Comparison of 2011 IRP and 2013 IRP

Figure 3 presents a comparison of the total system load and resource balance between the 2011 IRP and 2013 IRP. Figure 3 includes all of the Company-owned generation resources in the resource total, with Public Utility Regulatory Policies Act of 1978 ("PURPA"), Purchased Power Agreements ("PPA")/Other, market purchases and surplus sales used to balance out the system to provide enough generation to meet the Company's forecasted system load.

# Figure 3

202	20 Total System - Load / Re		
	(A)	(B)	(B - A)
	2011 IRP - Energy	2013 IRP - Energy	
Generation Type	Sources	Sources	Difference
IPC - Hydro	8,582,948	8,629,602	46,654
IPC - Coal	6,100,442	5,090,108	(1,010,334)
IPC - Natural Gas	933,766	1,516,882	583,117
IPC - Resource Total	15,617,156	15,236,592	(380,564)
PURPA	1,772,611	1,975,515	202,903
PPA/Other	535,429	536,406	977
Market Purchases	1,526,945	914,493	(612,452)
Surplus Sales	(1,111,375)	(2,390,464)	(1,279,089)
Load	18,340,766	16,272,542	(2,068,225)

#### IPC - Resource Total

The forecasted hydro generation remains almost identical between the two IRPs while coal generation is reduced by over 1 million megawatt-hours ("MWh") and natural gas generation is increased by nearly 0.6 million MWh in the 2013 IRP. The combined result is a net decrease of nearly 0.4 million MWh of Company-owned generation. Because natural gas generation produces approximately 37 percent<sup>1</sup> of carbon emissions as does coal generation, the increase in natural gas generation of nearly 0.6 million MWh produces far less emissions than would the same amount of generation from a coal plant.

#### **PURPA**

The forecasted PURPA generation increased by nearly 0.2 million MWh in the 2013 IRP, which includes nearly 127 MW of additional wind generation.

### PPA/Other

The forecasted PPA/Other generation includes: geothermal, wind, and net metering, which remained relatively unchanged between the two IRPs.

# Market Purchases

The forecasted market purchases decreased by 0.6 million MWh in the 2013 IRP due to lower forecasted loads.

#### Surplus Sales

The forecasted surplus sales increased by nearly 1.3 million MWh in the 2013 IRP, which is attributed to lower forecasted loads (described in more detail below) resulting in more generation available for off-system sales.

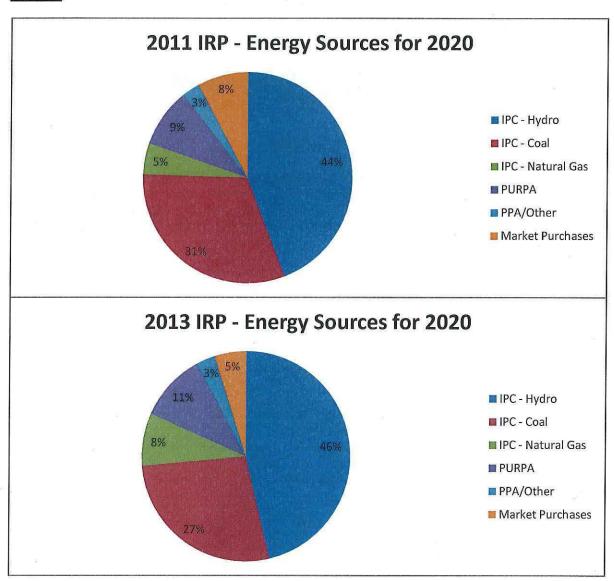
<sup>&</sup>lt;sup>1</sup> Page 64, Idaho Power Company 2013 IRP. (Langley Gulch CO<sub>2</sub> emissions (pound/MWh) as a percent of Idaho Power Coal Plant CO<sub>2</sub> emissions (pound/MWh); 37 percent = 799/((2,063 + 2,182 + 2,293)/3)

### Forecasted Load

The forecasted load decreased by nearly 2.1 million MWh between the 2011 IRP and the 2013 IRP. The decrease in forecasted load enables additional generation that was once required to serve forecasted load to be used to make additional surplus sales described earlier.

The following pie charts shown in *Figure 4* show that the portion of the pie attributable to each resource type remains relatively stable between the 2011 IRP and the 2013 IRP. With respect to greenhouse gas emission levels, it should be noted that the 2013 IRP shows a larger portion of energy being generated by hydro and PURPA (wind), as well as an increase in natural gas generation offsetting a reduction in coal generation. Surplus Sales are not included in *Figure 4*.

Figure 4



# **Oregon Allocation**

As described earlier, the values shown above are based on the Company's total system. The Company applied energy-based allocation factors using actual FERC Form 1 data to derive the Oregon specific values for the years 1990 and 2005 shown in *Figure 5*. The Oregon jurisdictional share of the 2020 forecasted emission levels using the 2013 IRP is based on Oregon's allocable share of the 2020 energy forecast.

#### Figure 5

Year	Oregon - CO <sub>2</sub> (tons)	
1990 Actual Emission Levels	349,552	
2005 Actual Emission Levels	403,386	
10% below 1990 Actual Emission Levels	314,597	
15% below 2005 Actual Emission Levels	342,878	

Year	Oregon - CO <sub>2</sub> (tons)
2020 Forecasted Emission Levels - 2013 IRP	283,231

### Conclusion

The Oregon jurisdictional emission levels based on the 2013 IRP estimated carbon emissions for the year 2020 are expected to be 283,231 tons. This amount of carbon emissions is well below the target levels of 10 percent below 1990 levels and 15 percent below 2005 levels. Based on these results, the Company estimates that no rate impact associated with reducing carbon emissions will be required.