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COMPANY NAME: Idaho Power Company

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Greenhouse Gas Report

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Print

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June 27, 2016

Public Utility Commission of Oregon
Filing Center
201 High Street SE, Suite 100
P.O. Box 1088
Salem, Oregon 97301

Re: Idaho Power Company's 2016 Greenhouse Gas Report

Attention Filing Center:

Idaho Power Company herewith transmits for electronic filing its 2016 Greenhouse Gas Report pursuant to OAR 860-085-0050. If you have any substantive questions, please call Regulatory Analyst Nicole Blackwell at 208-388-5764.

Very truly yours,

Lisa D. Nordstrom

Lisa D. Nordstrom

LDN:kkt

Enclosure

Idaho Power Company's
2016 Oregon Greenhouse Gas Emissions Report

Summary

Pursuant to OAR 860-085-0050, Idaho Power Company ("Idaho Power" or "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_2 (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 2015 Integrated Resource Plan ("IRP") to determine the 2020 emission levels, which are shown in *Figure 2*.

Figure 2

Year	Total System - CO_2 (tons)
2020 Emission Levels – 2015 IRP	5,834,893

As can be seen in *Figure 2*, the 2020 emission levels determined from the 2015 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 2014 Oregon Greenhouse Gas Report, the Company reported that the estimated 2020 emission levels determined from the 2013 IRP were 6,296,014 tons, also resulting in no additional reductions in carbon emission levels and thus no incremental rate impact. A comparison of the results determined from the two IRPs follows.

Comparison of 2013 IRP and 2015 IRP

Figure 3 presents a comparison of the total system load and resource balance between the 2013 IRP and 2015 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

2020 Total System - Load / Resource Balance (MWh)			
	(A)	(B)	(B - A)
Generation Type	2013 IRP - Energy Sources	2015 IRP - Energy Sources	Difference
Idaho Power - Hydro	8,629,602	8,631,843	2,242
Idaho Power - Coal	5,090,108	4,916,312	(173,796)
Idaho Power - Natural Gas	1,516,882	1,116,049	(400,833)
Idaho Power - Resource Total	15,236,592	14,664,205	(572,388)
PURPA	1,975,515	3,428,266	1,452,752
PPA/Other	536,406	527,226	(9,181)
Market Purchases	914,493	352,632	(561,861)
Surplus Sales	(2,390,464)	(2,612,810)	(222,346)
Load	16,272,542	16,359,518	86,977

Idaho Power - Resource Total

The forecasted hydro generation remains almost identical between the two IRPs while coal generation is reduced by approximately 0.17 million megawatt-hours ("MWh") and natural gas generation is reduced by 0.4 million MWh in the 2015 IRP. The combined result is a net decrease of 0.57 million MWh of company owned generation.

PURPA

The forecasted PURPA generation increased by nearly 1.5 million MWh in the 2015 IRP, which includes 461 megawatts ("MW") of additional PURPA solar projects[1]. The 2013 IRP notes on page 34 that as of March 31, 2013, Idaho Power had 105 PURPA contracts with independent developers for approximately 789 MW of nameplate capacity. This is compared to 133 PURPA contracts for approximately 1,302 MW of nameplate capacity as of March 31, 2015, as noted on page 35 of the 2015 IRP. Idaho Power's practice is to include PURPA projects that are operational or under signed contract as part of system resources.

PPA/Other

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

Market Purchases

The forecasted market purchases decreased by 0.56 million MWh in the 2015 IRP, which offsets the 74 percent increase in forecasted PURPA generation.

[1]Contracts for four solar projects totaling 141 MW of installed capacity were terminated on April 6, 2015. The relatively late termination date precluded the removal of these projects from the load and resource balance analysis for the 2015 IRP. Idaho Power Company 2015 IRP, page 93.

Surplus Sales

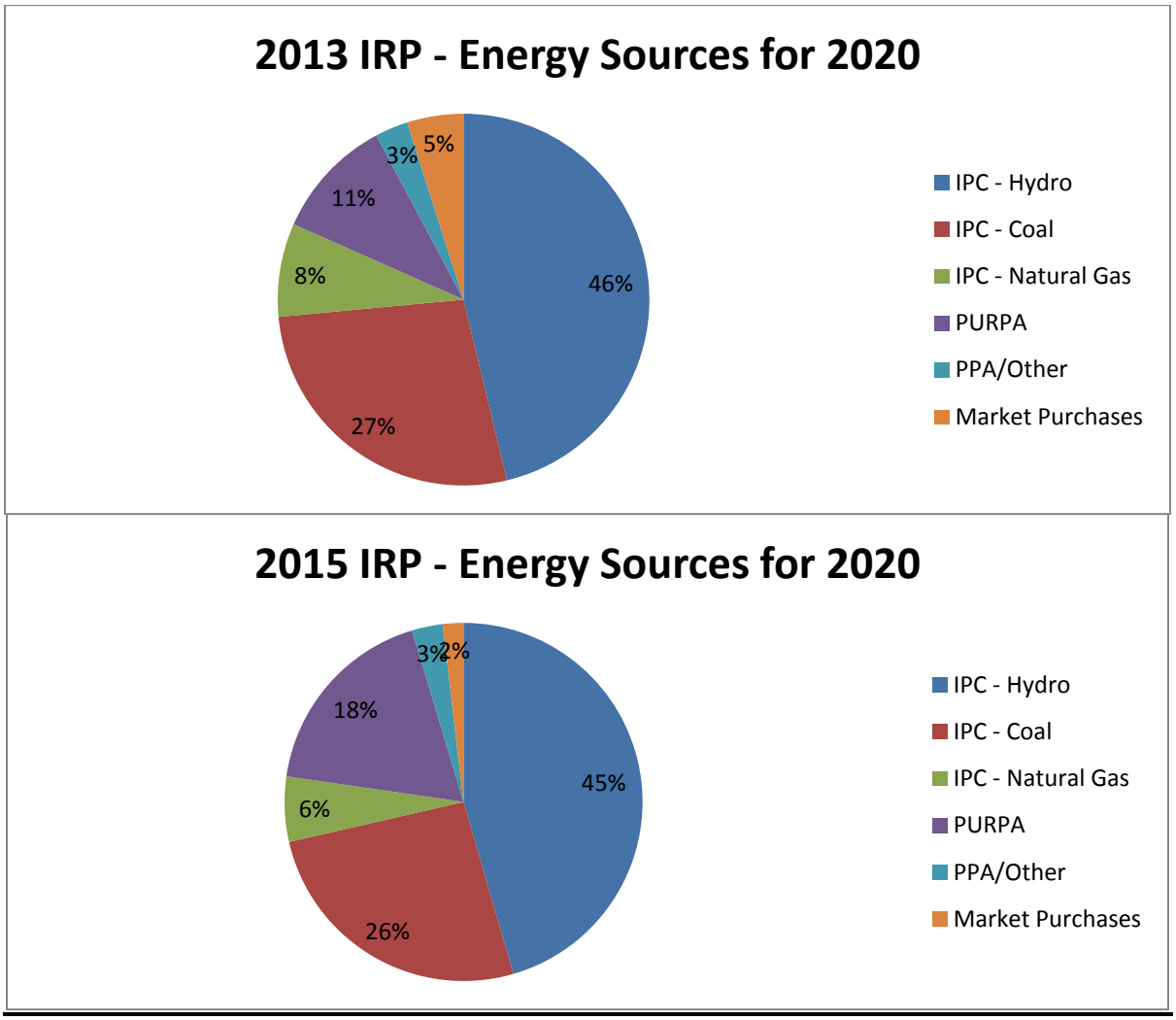
The forecasted surplus sales increased by 0.22 million MWh in the 2015 IRP, which is also attributed to the increase in forecasted PURPA generation.

Forecasted Load

The forecasted load was relatively stable between the 2013 IRP and 2015 IRP, increasing by 86,977 MWh or 0.53 percent.

The following pie charts shown in *Figure 4* reveal that the portion of the pie attributable to each resource type remains relatively stable between the 2013 IRP and the 2015 IRP. With respect to greenhouse gas emission levels, it should be noted that the 2015 IRP shows a larger portion of energy being generated by PURPA projects, offsetting the reduction in coal and natural gas 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 2015 IRP is based on Oregon's allocable share of the 2020 energy forecast.

Figure 5

Year	Oregon - CO_2 (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_2 (tons)
2020 Forecasted Emission Levels – 2015 IRP	275,990

Conclusion

The Oregon jurisdictional emission levels based on the 2015 IRP estimated carbon emissions for the year 2020 are expected to be 275,990 tons. This amount of carbon emissions is below the target levels of 10 percent below 1990 levels and 15 percent below 2005 levels. Based on these results, the Company estimates no incremental rate impact associated with reducing carbon emissions at this time.