

e-FILING REPORT COVER SHEET

REPORT NAME: 2018 Greenhouse Gas Report

COMPANY NAME: Idaho Power Company

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation: RE (Electric) RG (Gas) RW (Water)
 RO (Other)

Report is required by: OAR 860-085-0050
 Statute
 Order
 Other

Is this report associated with a specific docket/case? No Yes
If Yes, enter docket number: RE 92

Key words:

If known, please select the PUC Section to which the report should be directed:

- Corporate Analysis and Water Regulation
- Economic and Policy Analysis
- Electric and Natural Gas Revenue Requirements
- Electric Rates and Planning
- Natural Gas Rates and Planning
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LISA D. NORDSTROM
Lead Counsel
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June 28, 2018

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

Re: Docket No. RE 92
Idaho Power Company's 2018 Greenhouse Gas Report

Attention Filing Center:

Idaho Power Company herewith transmits for electronic filing its 2018 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,

A handwritten signature in black ink that reads "Lisa D. Nordstrom". The signature is written in a cursive, flowing style.

Lisa D. Nordstrom

LDN:kkt

Enclosure

**Idaho Power Company's
2018 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 2017 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 – 2017 IRP	3,581,342

As can be seen in *Figure 2*, the 2020 emission levels determined from the 2017 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 2016 Oregon Greenhouse Gas Report, the Company reported that the estimated 2020 emission levels determined from the 2015 IRP were 5,834,893 tons, also resulting in no additional reductions in carbon emission levels and thus no rate impact. A comparison of the results determined from the two IRPs follows.

Comparison of 2015 IRP and 2017 IRP

Figure 3 presents a comparison of the total system load and resource balance between the 2017 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, and 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	2015 IRP - Energy Sources	2017 IRP - Energy Sources	Difference
IPC - Hydro	8,631,843	8,457,924	(173,920)
IPC - Coal	4,916,312	2,590,361	(2,325,951)
IPC - Natural Gas	1,116,049	1,736,786	620,737
IPC - Resource Total	14,664,205	12,785,070	(1,879,135)
PURPA	3,428,266	2,952,746	(475,520)
PPA/Other	527,226	550,997	23,771
Market Purchases	352,632	997,094	644,462
Surplus Sales	(2,612,810)	(877,159)	1,735,651
Load	16,359,518	16,408,747	49,229

IPC - Resource Total

Forecasted hydrogeneration remained relatively stable between the two IRPs, while coal generation decreased by approximately 2.33 million megawatt hours (“MWhs”), or 47 percent, and natural gas generation increased by 0.62 million MWhs, or 56 percent, in the 2017 IRP. The combined result is a net decrease of 1.88 million MWhs of Company-owned generation. The decrease in coal-fired generation is primarily viewed as being driven by low natural gas prices and the expansion of renewable generation across the region and nation. Due to low natural gas prices and expanded renewable generating capacity, wholesale market prices for electricity in recent years have frequently been too low to merit economic dispatch of coal-fired plants.

PURPA

Forecasted PURPA generation decreased by approximately 0.48 million MWh, or 14 percent, in the 2017 IRP. The 2015 IRP notes on page 35 that as of March 31, 2015, Idaho Power had 133 PURPA contracts with independent developers for approximately 1,302 megawatts (“MW”) of nameplate capacity.¹ In comparison, the 2017 IRP includes 133 PURPA contracts for approximately 1,135 MW of nameplate capacity as of April 1, 2017, as noted on page 31 of the 2017 IRP. Idaho Power’s practice is to include PURPA projects that are operational or under signed contract as part of system resources.

PPA/Other

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

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.

Market Purchases

Forecasted market purchases increased by 0.64 million MWhs, or approximately 183 percent, in the 2017 IRP. As mentioned previously, wholesale market prices for electricity have been relatively low in recent years, and continue to remain relatively low, resulting in increased reliance on regional power markets to supply energy and capacity.

Surplus Sales

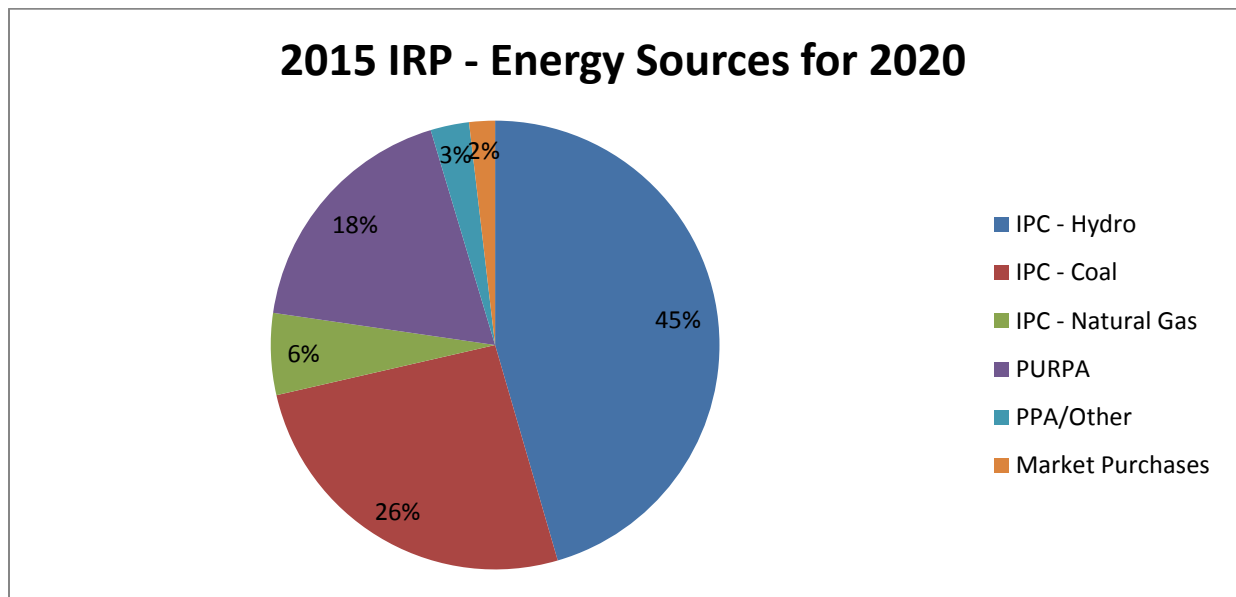
Forecasted surplus sales decreased by 1.74 million MWhs, or 66 percent, in the 2017 IRP, which is also attributed to low market electric prices. When market prices are low, it is economic for Idaho Power to serve load through increased market purchases, while the ability to sell surplus energy is reduced.

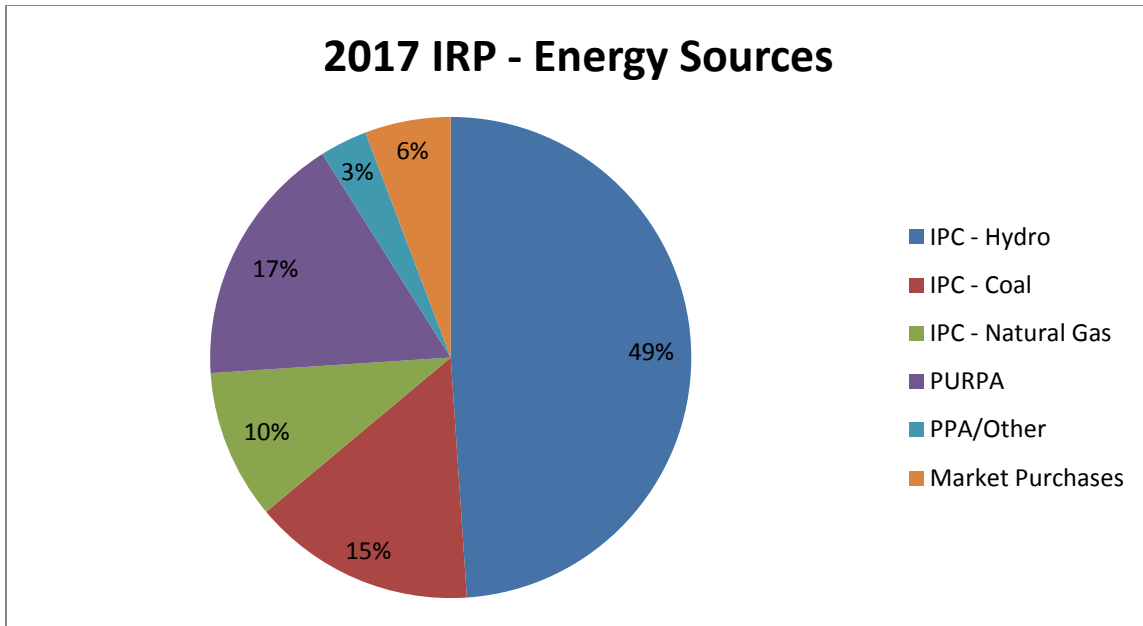
Forecasted Load

Forecasted load was relatively stable between the 2015 IRP and 2017 IRP, increasing by 49,229 MWh or 0.30 percent.

The charts shown in *Figure 4* illustrate the portion of generation attributable to each resource type for the 2015 IRP and 2017 IRP. With respect to greenhouse gas emission levels, it should be noted that the portion of energy being generated by coal-fired plants decreased from 26 percent in the 2015 IRP to 15 percent in the 2017 IRP. This was partially offset by increased natural gas generation, which increased from 6 percent in the 2015 IRP to 10 percent in the 2017 IRP. 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, as shown in *Figure 5*. The Oregon jurisdictional share of the 2020 forecasted emission levels using the 2017 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 – 2017 IRP	164,384

Conclusion

The Oregon jurisdictional emission levels based on the 2017 IRP estimated carbon emissions for the year 2020 are expected to be 164,384 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.