## **BEFORE THE PUBLIC UTILITY COMMISSION**

## **OF OREGON**

## LC 68

In the Matter of

IDAHO POWER COMPANY,

2017 Integrated Resource Plan

RENEWABLE ENERGY COALITION'S FINAL COMMENTS

# I. INTRODUCTION

These comments are submitted on behalf of the Renewable Energy Coalition (the "Coalition") in the matter of Idaho Power Company's ("Idaho Power") 2017 Integrated Resource Plan ("IRP") and in response to Idaho Power's Reply Comments. The Coalition recommends that the Oregon Public Utility Commission ("OPUC" or "Commission") should: 1) not acknowledge Idaho Power's 2017 IRP because its use of a low gas price forecast does not evaluate all resources on a consistent and comparable basis and does not adequately consider risk and uncertainty; and 2) require that Idaho Power use a gas price forecast based on more reasonable mid-range assumptions in its next IRP.

## II. <u>COMMENTS</u>

In its 2017 IRP, Idaho Power departs from its past practice of using the Energy Information Administration's ("EIA") Reference Case gas price forecast<sup>1</sup> and instead uses the High Oil and Gas Resource and Technology Case,<sup>2</sup> which forecasts a low natural gas price over

<sup>&</sup>lt;sup>1</sup> The Reference Case is "a business-as-usual estimate, given known market, demographic, and technological trends." EIA, 2016 Annual Energy Outlook report, at MT-1 (available at: <u>https://www.eia.gov/outlooks/aeo/pdf/0383(2016).pdf</u>) (hereafter referred to as 2016 AEO).

<sup>&</sup>lt;sup>2</sup> The High Oil and Gas Resource and Technology Case represents 50% higher rates of recovery and technological improvement, and the Low Oil and Gas Resource and

the planning horizon. Idaho Power's selection of the lowest of the low natural price forecasts has engendered controversy in both Oregon and Idaho. The Idaho Public Utilities Commission Staff characterize this departure as "[t]the most critical difference in this IRP."<sup>3</sup> The Oregon Commission Staff believes "that Idaho Power seems to have used subjective judgment in determining what a likely future was," and should have provided a "more robust justification for the decision to change its planning case from previous IRPs."<sup>4</sup>

Idaho Power started with the idea that it wanted a low natural gas price forecast, and has sought out data to support the conclusion it had already made. Idaho Power says this is because it believes that the recent trend of low prices will "persist."<sup>5</sup> The Coalition believes that a significant motivator of using this low natural gas price forecast may be that Idaho Power can use it to unreasonably lower its avoided costs. Idaho Power may reduce its avoided costs to a point where they no longer accurately represent actual incremental costs Idaho Power would incur from another source if it did not invest in conservation or purchase power from qualifying facilities.

Prior to filing its IRP, Idaho Power filed before the Idaho Public Utilities Commission an application that proposed to change the gas forecast in its Surrogate Avoided Resource ("SAR") avoided cost methodology to the EIA Henry Hub High Oil and Gas Resource and Technology

Technology Case represents 50% lower rates of recovery and technological improvement. 2016 AEO at E-11.

<sup>&</sup>lt;sup>3</sup> <u>Re Idaho Power Company's 2017 Integrated Resource Plan</u>, Idaho Public Utility Commission Case No. IPC-E-17-11, Comments of the Commission Staff at 6 (Nov. 27, 2017) (available at: <u>http://www.puc.idaho.gov/fileroom/cases/elec/IPC/IPCE1711/staff/20171127COMMEN</u> TS.PDF).

<sup>&</sup>lt;sup>4</sup> Staff's Opening Comments at 25-26.

<sup>&</sup>lt;sup>5</sup> Idaho Power Company's Reply Comments at 83.

forecast.<sup>6</sup> After REC and other intervenors objected, Idaho Power withdrew its application. Additionally, while Idaho Power used the 2016 EIA Reference Case forecast in its Energy Efficiency Potential Study (performed by third-party consultant Applied Energy Group), the Coalition believes that Idaho Power will use the High Oil and Gas Resource and Technology Case in its next Energy Efficiency Potential Study.<sup>7</sup> Therefore, if Idaho Power gains acknowledgement of this IRP, REC believes that Idaho Power will use acknowledgement as justification for lowering its already historically low avoided costs even further in both Oregon and Idaho.

Even if Idaho Power has a subjective belief that natural gas prices will remain low, its natural gas price forecast should rely on objective data, and it must be reasonable for Idaho Power to rely on such data. Intercontinental Exchange ("ICE") settled forward contracts data are not a reasonable tool for use in forecasting natural gas prices. This is due to the fact that they will result in more expensive resource acquisitions (because they are not an objectively accurate indicator of future natural gas prices), and will be riskier (because they do not reflect historic or expected natural gas price volatility). Additionally, Idaho Power's attempt to justify its use of a low natural gas price forecast confuses the issues because it provides incomplete, misleading, and contradictory information.

<sup>&</sup>lt;sup>6</sup> See Review of SAR Methodology for Calculating Published Avoided Cost Rates, Idaho Public Utility Commission, Case No. GNR-E-17-02, Application (Jun. 1, 2017) (available at: <u>http://www.puc.idaho.gov/fileroom/cases/summary/GNRE1702.html</u>).

<sup>&</sup>lt;sup>7</sup> See Idaho Power's Response to REC's data request No. 1.9 (Attachment A to the Coalition's Opening Comments) ("[Idaho Power] provides its contractor with the preliminary Demand-Side Management ("DSM") Alternative costs based on the previous IRP preferred portfolio updating those variables that are available at that time.").

#### A. It Is Unreasonable to Rely on ICE Data to Forecast Natural Gas Prices

ICE is not a reasonable tool for forecasting long-term natural gas prices. First, ICE futures contracts are option contracts that buyers and sellers enter into today based on near-term expectations about what they think the price of natural gas will be in the next few years. They do not represent actual prices. The buyers enter into option contracts because they think the price will be higher in the future and/or the product will be scarcer, and they want to ensure they have an option to buy. The sellers enter into option contracts because they think the price will be lower and/or because they want to ensure that at least some of their product sells. As the Idaho Public Utilities Commission Staff articulated, "rather than being a reflection of actual future spot market pricing, ICE futures options are merely a reflection of what today's market is willing to pay now to have that option within the next six years."<sup>8</sup>

Second, ICE futures contracts have a decreasing volume over time, so data that are further in the future are less reliable. While Idaho Power's Figure 7 and Confidential Figure 8 show ICE data out to 2028, the actual volume of contracts and volume of natural gas in the later years is minimal. The Idaho Public Utilities Commission Staff also illustrate this in their comments before the Idaho Commission and Attachment B to their comments, which is reproduced and attached here as Attachment A.<sup>9</sup> Attachment A depicts the trading activity of natural gas futures contracts at one moment in time (July 2017).<sup>10</sup> The actual number of open interest contracts decreases to zero by 2028, but even more telling is the rate at which the volume

Re Idaho Power Company's 2017 Integrated Resource Plan, Idaho Public Utilities Commission Case No. IPC-E-17-11, Comments of the Commission Staff at 8 (Nov. 27, 2017) (available at: http://www.puc.idaho.gov/fileroom/cases/elec/IPC/IPCE1711/staff/20171127COMMEN TS.PDF).

<sup>&</sup>lt;sup>9</sup> <u>Id.</u> at 6-8

<sup>&</sup>lt;sup>10</sup> The current NYMEX trading activity can be viewed here: https://www.barchart.com/futures/quotes/NG\*0/all-futures.

decreases. In the first two years depicted in Attachment A (July 2017 to July 2019), the number of open interest contracts at 2,500 mmBTU decreases by around 75%,<sup>11</sup> the number of open interest contracts at 10,000 mmBTU decreases by over 99%,<sup>12</sup> and, in total, the volume of gas traded decreased by around 98%.<sup>13</sup> Therefore, as the years get further into the future the ICE data become scarcer and less reliable.

In sum, because the ICE data are based on option contracts with a rapidly decreasing volume over time, it is not reasonable to rely on this data when selecting a natural gas price forecast. Forecasting, by its definition is long term. The EIA forecasts look out 25-35 years and even the IRP process requires utilities to plan for 20 years. ICE is simply a near-term market for buying and selling option contracts in natural gas. The data is based on current expectations of what will occur in the next few years, and data out beyond the first couple years is less voluminous and less reliable. Therefore, it is unreasonable to rely on the limited near-term ICE data when selecting a long-term natural gas price forecast.

## B. ICE Data Are Not "More Accurate" Indicators of Natural Gas Prices

The ICE data are also not more accurate at forecasting either long- or short-term natural gas prices and cannot predict volatility in the natural gas market. Idaho Power traps itself in a logic loop because it relies on ICE data as both a basis, and as a justification, for selecting the High Oil and Gas Resource and Technology Case.<sup>14</sup> First, it says that a "detailed review" of the ICE data "demonstrated ICE to be *a more accurate indicator* than the EIA Planning Case forecast used in the IRP over the past few years."<sup>15</sup> Then immediately following that statement,

<sup>&</sup>lt;sup>11</sup> Down to 14,334 contracts in July 2019 from 56,517 in 2017.

<sup>&</sup>lt;sup>12</sup> Down to 1,303 contracts in July 2019 from 211,088 in 2017.

<sup>&</sup>lt;sup>13</sup> Down to 48,865,000 mmBTU in July 2019 from 2,252,172,500 in 2017.

<sup>&</sup>lt;sup>14</sup> Idaho Power Company's Reply Comments at 81.

<sup>&</sup>lt;sup>15</sup> <u>Id.</u> (emphasis added); <u>see also</u> Idaho Power Company's Response to REC's Data Request No. 1.1(b) (attached as Attachment A to REC's Opening Comments) ("The natural gas

Idaho Power states that it believes it is appropriate to use ICE data to "validate the gas forecast and doing so in this manner served to confirm the selection of the [High Oil and Gas Resource and Technology] case over the EIA Reference Case."<sup>16</sup> If the ICE data was used as a basis for selecting the High Oil and Gas Resource and Technology Case, then of course the ICE data will also validate that selection. The question then is not whether the ICE data validates the selection of a low natural gas price forecast, but whether ICE really is "a more accurate indicator" and a less risky choice than the EIA Reference Case forecasts used in its IRPs since 2013.

The ICE data are not "more accurate" indicators than the EIA Reference Case forecasts used in the IRP over the past few years. First, Idaho Power contradicts this statement in its analysis of Confidential Figure 8 (reproduced herein as Attachment B) by stating that there is a "strong correlation" between the 2009 to 2012 ICE data and the EIA Reference Case.<sup>17</sup> Idaho Power used the 2012 EIA Reference Case as its planning case in its 2013 IRP.<sup>18</sup> Therefore, according to Idaho Power's own analysis, ICE was not a "more accurate" indicator than the EIA Reference Case used in the 2013 IRP.

Second, the ICE data are also not more accurate than the EIA Reference Case used in the 2015 IRP. Idaho Power used the 2014 EIA Reference Case as its planning case in its 2015

IRP.<sup>19</sup>

price forecast in the last two IRPs have *consistently* overstated the gas price forecast when using the EIA Reference Case") (emphasis added).

<sup>&</sup>lt;sup>16</sup> <u>Id.</u>

<sup>&</sup>lt;sup>17</sup> <u>Id.</u> at 83.

 <sup>&</sup>lt;u>See</u> Idaho Power's 2013 IRP at 62; <u>see also</u> Idaho Power Company's Reply Comments at 83, Confidential Figure 8.

<sup>&</sup>lt;sup>19</sup> See Idaho Power's 2015 IRP at 84; see also Idaho Power Company's Reply Comments at 83, Confidential Figure 8.

To show that one is a better <i>forecast</i> , we would need data over a
longer period of time; a couple years of actual Henry Hub prices to compare these datasets
against is not enough.
Idaho Power states that "[s]tarting in 2013, the futures begin
to diverge with EIA continuing to show a much larger increase in the forecast and ICE contracts
showing a much flatter future. <sup>21</sup>
However, note

that Idaho Power did not include in its graph any data points from the 2015 EIA Reference Case

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- 20
- <sup>21</sup> Idaho Power Company's Reply Comments at 83.

prior to 2017.<sup>22</sup> The EIA prepared the 2015 AEO in 2014 for publication in early 2015, so the missing 2014, 2015, and 2016 data points are actually near-term forecasts, not actual Henry Hub prices. Please refer to Attachment C for a graph showing the complete EIA data-sets. The 2014 and 2015 data points from the 2015 EIA Reference Case (green dotted line) show a near-term forecast with at least some drop in prices from 2014 to 2015 consistent with what actually occurred. This is significant because the ICE data can be collected later and closer in time to the actual prices, with access to more current information.

Additionally, as actual Henry Hub prices have remained low, the EIA forecasts have also gotten lower because each year more current and better information becomes available. The most recently released 2017 EIA Reference Case forecasts lower natural gas prices than the 2016 Reference Case.<sup>24</sup>

<sup>&</sup>lt;sup>22</sup> It is unclear whether this was inadvertent or intentional, but also note that the 2011 and 2012 EIA data points both begin in 2013, and the 2016 EIA data points begin in 2017, but the 2009, 2010, and 2014 EIA data points all begin in 2009, 2010, and 2014 respectively.

<sup>&</sup>lt;sup>23</sup> This is also illustrated by the 2012 EIA Reference Case forecast (red dashed line in Attachment C and Confidential Figure 8). Idaho Power's Confidential Figure 8 left off the 2011 and 2012 data points which, in Attachment C, show that the EIA correctly forecasted some degree of a near-term price drop from 2011 to 2012 (compare to Actual Henry Hub price, black solid line).

<sup>&</sup>lt;sup>24</sup> Please refer to Attachment C for a comparison of the 2017 EIA Reference Case (blue dashed line).

<sup>&</sup>lt;sup>25</sup> Idaho Power Company's Reply Comments at 83.

This is yet another loop in reasoning (because ICE lines up with the High Oil and Gas Resource and Technology Case, ICE is accurate; therefore, because ICE is accurate and the High Oil and Gas Resource and Technology Case lines up with ICE, we should select that High Oil and Gas Resource and Technology Case). This again illustrates Idaho Power's forced justification for selecting what it wanted from the beginning: a low price forecast.

In sum, there are simply not enough years of ICE data, EIA forecasts, and actual Henry Hub prices to conclude that ICE is better at *forecasting* long-term prices, and ICE is not even that much better at forecasting near-term prices. The price of natural gas is historically volatile as illustrated in the very short-term by a steep decline from 2014 to 2015 that no one predicted. Therefore, it is not reasonable to rely solely on the ICE data when forecasting natural gas prices or selecting a long-term price forecast.

### III. <u>CONCLUSION</u>

The EIA's High Oil and Gas Resource and Technology forecast relies on aggressive estimates in oil and gas recovery and technology. It is an extreme case. To rely on such an aggressive forecast ignores the risk and uncertainty that gas recovery and technological improvement will not keep pace, and reliance upon this forecast will favor portfolios that rely on natural gas. This has the impact of making natural gas portfolios appear less costly than portfolios that rely on other resources including energy from conservation and qualifying facilities. ICE is not a more accurate forecasting tool. It is also not more able to predict the short-term prices, is not immune to volatility in the natural gas industry, and is not the least risky forecasting tool. The option contracts depicted by the ICE data reflect near-term market expectations and the data become more limited and less reliable beyond the first couple years. As such, ICE is not a good indicator of long-term prices and it is unreasonable to rely on such data in selecting a gas price forecast. Therefore, the Commission should not acknowledge Idaho Power's IRP and require Idaho Power to use a more reasonable, mid-range gas price forecast in its next IRP.

Dated this 18th day of January, 2018.

Respectfully submitted,

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Of Attorneys for the Renewable Energy Coalition

Open interest as of: June 12, 2017 Henry Hub Natural Gas Last Day Financial Volume

Contract size= 2,500 mmBtu

## ATTACHMENT A

#### Henry Hub Natural Gas Futures

Contract	size=	10.000	mmBtu
Contract	3120-	10,000	minibita

Contract size= 2,500 mmBtu		Contract size=	10,000 mmBtu		
	Open		Open		Total Open Interest in
Month	Interest	Total mmBtu	Interest	Total mmBtu	mmBtu
JUL 17	56,517	141,292,500	211,088	2,110,880,000	2,252,172,500
AUG 17	52,128	130,320,000	193,740	1,937,400,000	2,067,720,000
SEP 17	49,427	123,567,500	169,951	1,699,510,000	1,823,077,500
OCT 17	62,089	155,222,500	184,150	1,841,500,000	1,996,722,500
	47,450	118,625,000	72,670	726,700,000	845,325,000
NOV 17	48,653	121,632,500	67,213	672,130,000	793,762,500
DEC 17	64,155	160,387,500	112,080	1,120,800,000	1,281,187,500
JAN 18	35,064	87,660,000	45,083	450,830,000	538,490,000
FEB 18		103,682,500	73,996	739,960,000	843,642,500
MAR 18	41,473		88,466	884,660,000	1,011,350,000
APR 18	50,676	126,690,000	39,935	399,350,000	487,545,000
MAY 18	35,278	88,195,000		219,880,000	302,700,000
JUN 18	33,128	82,820,000	21,988		339,655,000
JUL 18	34,738	86,845,000	25,281	252,810,000	287,145,000
AUG 18	35,146	87,865,000	19,928	199,280,000	259,315,000
SEP 18	33,322	83,305,000	17,601	176,010,000	
OCT 18	46,051	115,127,500	41,946	419,460,000	534,587,500
NOV 18	31,355	78,387,500	20,692	206,920,000	285,307,500
DEC 18	33,445	83,612,500	22,788	227,880,000	311,492,500
JAN 19	19,929	49,822,500	10,716	107,160,000	156,982,500
FEB 19	16,547	41,367,500	3,528	35,280,000	76,647,500
MAR 19	18,857	47,142,500	4,810	48,100,000	95,242,500
APR 19	14,321	35,802,500	5,680	56,800,000	92,602,500
MAY 19	14,497	36,242,500	1,558	15,580,000	51,822,500
JUN 19	14,078	35,195,000	1,432	14,320,000	49,515,000
JUL 19	14,334	35,835,000	1,303	13,030,000	48,865,000
AUG 19	14,297	35,742,500	1,257	12,570,000	48,312,500
SEP 19	13,962	34,905,000	1,214	12,140,000	47,045,000
OCT 19	14,777	36,942,500	3,397	33,970,000	70,912,500
NOV 19	14,180	35,450,000	1,444	14,440,000	49,890,000
DEC 19	15,015	37,537,500	1,452	14,520,000	52,057,500
JAN 20	11,147	27,867,500	942	9,420,000	37,287,500
FEB 20	10,177	25,442,500	532	5,320,000	30,762,500
MAR 20	10,785	26,962,500	595	5,950,000	32,912,500
APR 20	9,877	24,692,500	761	7,610,000	32,302,500
MAY 20	10,344	25,860,000	639	6,390,000	32,250,000
JUN 20	9,976	24,940,000	543	5,430,000	30,370,000
JUL 20	10,465	26,162,500	526	5,260,000	31,422,500
	10,506	26,265,000	490	4,900,000	31,165,000
AUG 20	10,167	25,417,500	490	4,900,000	30,317,500
SEP 20	10,397	25,992,500	514	5,140,000	31,132,500
OCT 20	10,085	25,212,500	521	5,210,000	30,422,500
NOV 20		25,037,500	819	8,190,000	33,227,500
DEC 20	10,015		138	1,380,000	14,372,500
JAN 21	5,197	12,992,500	129	1,290,000	13,270,000
FEB 21	4,792	11,980,000	129	1,170,000	14,075,000
MAR 21	5,162	12,905,000	82	820,000	13,075,000
APR 21	4,902	12,255,000		680,000	13,342,500
MAY 21	5,065	12,662,500	68 68	680,000	13,120,000
JUN 21	4,976	12,440,000			13,477,500
JUL 21	5,127	12,817,500	66	660,000	13,580,000
AUG 21	5,164	12,910,000	67	670,000	
SEP 21	4,948	12,370,000	74	740,000	13,110,000
OCT 21	4,975	12,437,500	69	690,000	13,127,500
NOV 21	4,856	12,140,000	68 103	680,000 1,030,000	12,820,000 13,575,000
DEC 21	5,018	12,545,000			

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#### Open inte June 12, 2

Month

**JAN 22** 

FEB 22

**MAR 22** 

APR 22

MAY 22

JUN 22

JUL 22

AUG 22

SEP 22

OCT 22

**NOV 22** 

DEC 22

JAN 23

FEB 23

**MAR 23** 

APR 23

MAY 23

JUN 23

JUL 23

AUG 23

SEP 23

OCT 23

**NOV 23** 

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JAN 24

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JUN 25

JUL 25

AUG 25

SEP 25

OCT 25

NOV 25

DEC 25

JAN 26

**FEB 26** 

**MAR 26** 

APR 26

MAY 26

**JUN 26** 

#### ATTACHMENT A

erest as of: 2017	Henry Hub N Day Financia	atural Gas Last al Volume	Henry Hub Na		
	Contract size	e= 2,500 mmBtu	Contract size=	10,000 mmBtu	
	Open Interest	Total mmBtu	Open Interest	Total mmBtu	Total Open Interest in mmBtu
	3,749	9,372,500	5	50,000	9,422,500
	3,388	8,470,000	5	50,000	8,520,000
	3,757	9,392,500	6	60,000	9,452,500
	3,701	9,252,500	13	130,000	9,382,500
	3,805	9,512,500	14	140,000	9,652,500
	3,672	9,180,000	13	130,000	9,310,000
	3,777	9,442,500	14	140,000	9,582,500
	3,773	9,432,500	14	140,000	9,572,500
	3,663	9,157,500	13	130,000	9,287,500
	3,891	9,727,500	13	130,000	9,857,500
	3,509	8,772,500	13	130,000	8,902,500
	3,621	9,052,500	2	20,000	9,072,500
	2,478	6,195,000	3	30,000	6,225,000
	2,360	5,900,000			5,900,000
	2,595	6,487,500			6,487,500
	2,516	6,290,000	11	110,000	6,400,000
	2,595	6,487,500	13	130,000	6,617,500
	2,516	6,290,000	11	110,000	6,400,000
	2,571	6,427,500			6,427,500
	2,571	6,427,500			6,427,500
	2,492	6,230,000			6,230,000
	2,571	6,427,500	4	40,000	6,467,500
	2,492	6,230,000			6,230,000
	2,571	6,427,500			6,427,500
	1,740	4,350,000			4,350,000
	1,636	4,090,000			4,090,000
	1,740	4,350,000			4,350,000
	1,688	4,220,000			4,220,000
	1,740	4,350,000	2	20,000	4,370,000
	1,688	4,220,000	1	10,000	4,230,000
	1,740	4,350,000			4,350,000
	1,740	4,350,000			4,350,000
	1,688	4,220,000			4,220,000
	1,740	4,350,000			4,350,000
	1,688	4,220,000			4,220,000
	1,740	4,350,000			4,350,000
	1,092	2,730,000			2,730,000
	984	2,460,000			2,460,000
	1,092	2,730,000			2,730,000
	1,056	2,640,000			2,640,000
	1,092	2,730,000	1	10,000	2,740,000
	1,056	2,640,000			2,640,000
	1,092	2,730,000			2,730,000
	1,092	2,730,000			2,730,000
	1,052	2,100,000			2 640 000

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2,640,000

2,730,000

2,640,000

2,730,000

1,340,000

1,220,000

1,340,000

1,300,000

1,340,000

1,300,000

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**REC's Final Comments** Attachment A Page 2 Open interest as of: June 12, 2017 Henry Hub Natural Gas Last Day Financial Volume

### ATTACHMENT A

#### Henry Hub Natural Gas Futures

	Contract size= 2,500 mmBtu		Contract size	= 10,000 mmBtu	
	Open		Open		Total Open Interest in
Month	Interest	Total mmBtu	Interest	Total mmBtu	mmBtu
JUL 26	536	1,340,000			1,340,000
AUG 26	536	1,340,000			1,340,000
SEP 26	520	1,300,000			1,300,000
OCT 26	536	1,340,000			1,340,000
NOV 26	520	1,300,000			1,300,000
DEC 26	536	1,340,000			1,340,000
JAN 27					-
Feb 27					-
Mar 27					-
Apr 27					
May 27					-
Jun 27					-
Jul 27					-
Aug 27					-
Sep 27					
Oct 27					-
Nov 27					-
Dec 27					-
JAN 28	217	542,500			542,500
FEB 28	203	507,500			507,500
MAR 28	217	542,500			542,500
APR 28	210	525,000			525,000
MAY 28	217	542,500			542,500
JUN 28	210	525,000			525,000
JUL 28	217	542,500			542,500
AUG 28	217	542,500			542,500
SEP 28	210	525,000			525,000
DCT 28	217	542,500			542,500
NOV 28	210	525,000			525,000
DEC 28	217	542,500			542,500

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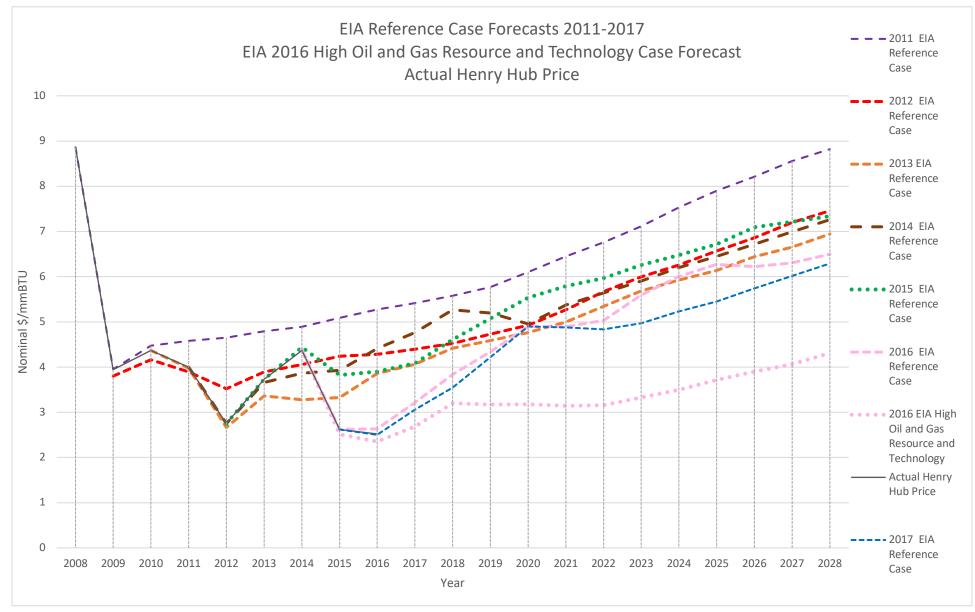
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# ATTACHMENT B



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# ATTACHMENT C



Colors and formatting in this Attachment C are consistent with Idaho Power's Confidential Figure 8 to avoid confusion. The 2009 and 2010 EIA forecasts were not included because they are complete in Confidential Figure 8.

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