



Matthew R. Bernier
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Duke Energy Florida, LLC

February 7, 2018

VIA ELECTRONIC FILING

Ms. Carlotta Stauffer, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Duke Energy Florida, LLC's, Petition for approval to terminate qualifying facility power purchase agreement with Florida Power Development, LLC; Docket No. 20170274-EQ*

Dear Ms. Stauffer:

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), in the above-referenced docket, DEF's Response to Staff's First Data Request.

Thank you for your assistance in this matter. Please feel free to call me at (850) 821-1428 should you have any questions concerning this filing.

Sincerely,

/s/ Matthew R. Bernier

Matthew R. Bernier

DMT/mw
Attachment

cc: Parties of record

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished to the following by electronic mail this 7th day of February, 2018, to all parties of record as indicated below.

/s/ Matthew R. Bernier

Attorney

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| <p>Charles Murphy / Rachael Dziechciarz Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 cmurphy@psc.state.fl.us rdziehc@psc.state.fl.us</p> | <p>J. R. Kelly / Charles J. Rehwinkel Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399 kelly.jr@leg.state.fl.us rehwinkel.charles@leg.state.fl.us</p> |
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**Duke Energy Florida, LLC's Response to Staff's First Data Request regarding
DEF's Petition for approval to terminate qualifying facility power purchase agreement with
Florida Power Development, LLC
Docket No. 20170274-EQ**

For the purpose of questions 1-7, please refer to the Direct Testimony of Benjamin M.H. Borsch, attached to DEF's petition (Document No. 10965-2017), as filed in this docket.

1. Please refer to Page 5, Lines 6-8, wherein Witness Borsch notes that "The Termination Agreement is expected to yield environmental benefits," referring to "numerous criteria air pollutants" and Lines 9-13, where Witness Borsch testifies that "DEF anticipates that the retirement of the FPD Facility will reduce DEF's system wide average annual carbon dioxide ("CO₂") emissions of its total resource portfolio in Florida by approximately 136-153 thousand tons per year and 2.3 – 2.6 million tons cumulatively over the remaining FPD QF PPA term..."
 - a. Please identify each of the pollutants (SO₂, NO_x, etc.) included in "numerous criteria air pollutants."
 - b. Please identify all data sources used by DEF in its calculation of these anticipated reductions.
 - c. Please identify all assumptions used by DEF in its calculation of these anticipated reductions.

Response:

- a. According to the FDEP, FPD is a major source of air pollution for NO_x, CO, SO₂, PM/PM₁₀/PM_{2.5}, and CO₂. In addition FPD emits regulated levels of HAPs including acid gasses (SAM and HCL) and mercury.
- b. DEF obtained information regarding the FPD emissions from FPD's current air permit (0530380-14-AV).
- c. DEF did not specify the level of reduction in criteria pollutants from FPD, but did estimate a reduction in CO₂ emissions. DEF modeled a negligible change in NO_x and SO₂ emissions related to the change in the DEF dispatch. DEF's modeling assumes emissions rates for NO_x and SO₂ for all DEF owned units as well as CO₂ emissions rates for both DEF owned and contracted units. DEF assumed a CO₂ emissions rate of 1655 lb. CO₂/MWh for FPD, higher than the DEF fleet emissions rate which is projected to average slightly above 1100 lb./MWh over the period of the contract. In this regard, DEF's estimate of the CO₂ savings is likely to be conservative since the assumed emissions rate for FPD is approximately half of the plant's permitted emissions rate.

2. Please refer to Page 5, Lines 11-13. Please provide the models and data sources employed by DEF in its forecasts of CO2 emissions reductions.

Response:

DEF performs long range dispatch and production cost modeling using the PROSYM module of the ABB Planning and Risk modeling suite. This modeling is performed using the same tools and general approach described in Chapter 3 of DEF's Ten-Year Site Plan (please refer to the most recent version filed April 1, 2017). Included in that modeling are assumptions for the CO2 emissions rates for each of DEF's owned and contracted generation sources. These assumptions are based on permit data, historic and tested heat rate data. DEF uses the dispatch model to project the operation of each unit in the DEF fleet based on the optimal economic generation profile subject to system operating constraints, unit performance characteristics, outage requirements, and contract terms (such as those required for FPD). Each unit's generating profile produces an emissions profile based on the CO2 emissions rate. The emission totals are summed for all units in the fleet on an annual basis. The annual totals are compared between the cases to identify changes in projected emissions and in these case reductions in CO2 emissions resulting from the termination of the contract.

3. Please refer to the tables on Page 7. Please provide data and calculations used by DEF to arrive at annual net costs of CO2 reduction for each scenario incorporated in the tables.

Response:

Please see Excel Spreadsheet *2018-01 FPD-DOCKET 201702740-Q3.xlsx* DEF-20170274-000048 through DEF-20170274-000051.

4. Please refer to Page 6, Lines 18-23.
 - a. What is DEF's rationale and method for calculating the low and high fuel price forecast sensitivities and why such sensitivities are appropriate in support of DEF's petition?
 - b. What are the probabilities, if any, of DEF's fuel price forecasts sensitivities and what method was used to determine such probability?
 - c. If DEF did not calculate probabilities of its fuel price forecast sensitivities, what weight should be given to DEF's fuel price sensitivities, and why?

Response:

- a. DEF utilized high and low fuel price forecasts to illustrate the value of the

contract termination under a range of potential future circumstances. This information is intended to provide the Commission with confidence that the contract termination will provide benefit to DEF customers even if the price of fuel should vary. In this case, DEF selected recent past fuel forecasts which have encompassed differing assumptions about elements that affect the price of natural gas, and to a lesser extent coal. These assumptions include assumptions regarding future carbon emission regulation, technology developments that would affect the lifting cost of gas, prospects for natural gas export, developments in the international oil market that would affect the value of drilling for wet gas, and future nuclear and coal retirements. While there are a great many different assumptions that underlie the forecast, the key output is a range of forecasts that provide spread of approximately +/- 20% from DEF's base forecast.

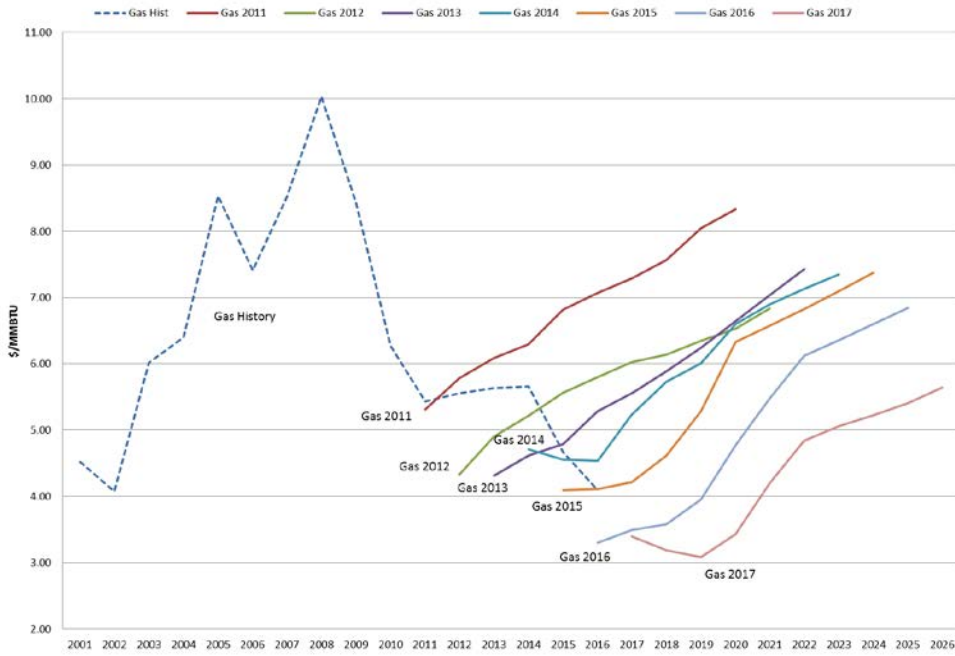
- b. DEF does not assign specific probabilities to the likelihood of one forecast or another. The high and low forecasts are provided to portray a reasonable range of possible outcomes.
 - c. The use of high and low forecasts is not intended to assert a likelihood of a specific price outcome. Rather, it is intended to illustrate that the eventual outcome is likely not to be in exact accordance with DEF's base forecast, but more realistically to be within a range which DEF forecasts will approximate the values in the base forecast.
5. Please refer to Page 6, Lines 18-23.
- a. What are the source(s) and dates of DEF's fuel price forecast used to support its petition was prepared, the anticipated source(s) and date of DEF's next fuel price forecast, and the source(s) dates of DEF's fuel price forecasts prepared in 2015 and 2016?
 - b. Why does DEF rely upon its source of its fuel price forecasts?
 - c. Please comment on the DEF's fuel price forecast source's level of past DEF fuel price forecast accuracy, especially relative to other sources, to the extent such information is available.
 - d. In detail, what is the method used to prepare DEF's fuel price forecast to support its petition and any change in DEF's methodology compared to DEF's method used to produce its 2015 and 2016 fuel price forecasts?
 - e. What are all docketed and undocketed DEF filings submitted to the Florida Public Service Commission based on the fuel price forecast submitted in DEF's instant petition?

- f. If DEF used alternative fuel price forecasts (provided by alternative sources) to test the reasonableness of its fuel price forecast, please provide DEF's analysis of the reasons for any significant deviations which may exist between DEF's forecast and such alternative forecasts.
- g. If DEF used alternative fuel price forecasts (provided by alternative sources) to test the reasonableness of its fuel price forecast, to what extent do such forecasts support the reasonableness of DEF's fuel price forecast?

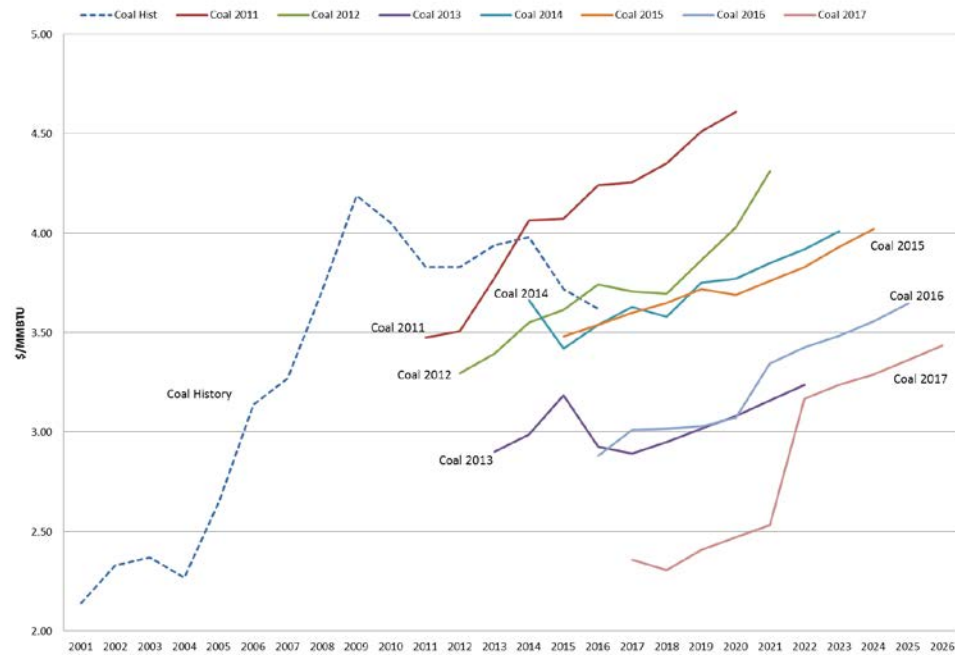
Response:

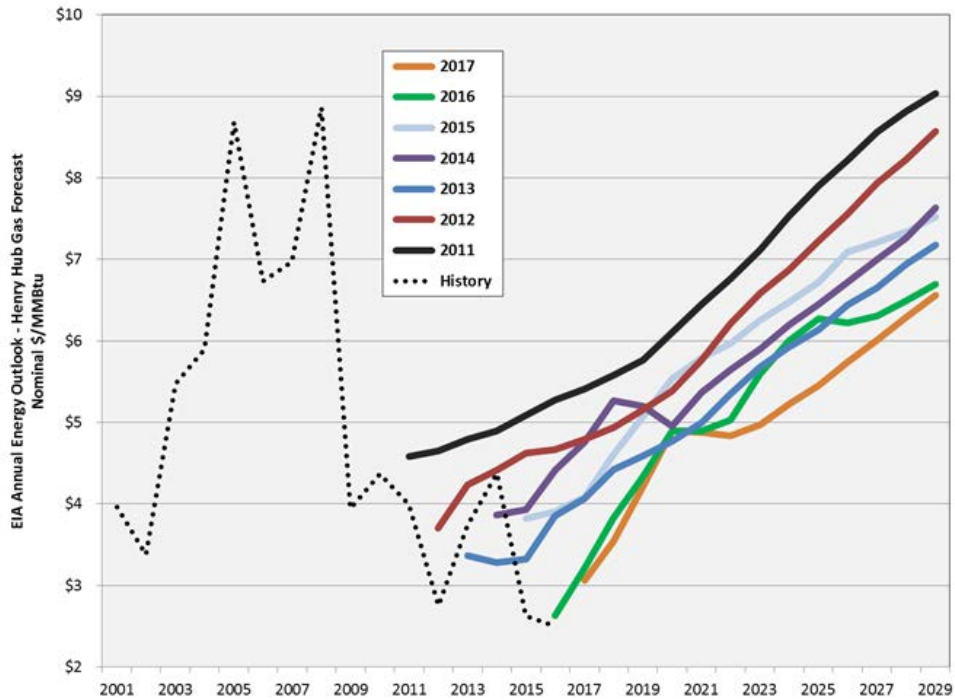
- a. The base fuel price forecast used to support DEF's petition in this docket was prepared in the fall of 2016 and used in the 2017 Ten Year Site Plan ("TYSP"). The high fuel case was DEF's 2016 TYSP case and was prepared in the Fall of 2015. The low fuel case was prepared in the spring of 2017. See the response to (d) below for a detailed discussion of the data sources and preparation methods.
- b. DEF uses industry recognized consultants as well as ongoing monitoring of fuel trading markets and the input of its in-house experts to develop its fuel price forecasts.
- c. The charts below show DEF's historic actual and projected gas and coal prices drawn from DEF's 2011 – 2017 Supplemental Data Request responses associated with those TYSPs. As shown in these data, DEF has continued to incorporate over time the effects of the shale gas revolution in its natural gas price forecast and the price response in the coal price forecast. As a result, DEF's forecast of the price of both commodities has fallen steadily for almost the entire decade, as the price has also fallen. DEF and its consultants have continued to work to incorporate the impacts of changing technology and related market forces into the price forecast. For comparison, 2011 – 2017 gas forecasts from the U.S. Energy Information Administration ("EIA") also are shown. These forecasts demonstrate very similar movement over time, generally for the same reasons.

Natural Gas Price History and Forecasts \$/MMBTU



Coal Price History and Forecasts \$/MMBTU





- d. DEF has both a short-term fuels forecast and a long-term forecast. The short-term forecast is based on observed market prices and is used mainly for operational purposes. The long-term forecast is a fundamentals-based forecast and it reflects Duke Energy’s long-term outlook for resource planning purposes. All of the long-term fundamental commodity prices are developed within the context of a comprehensive, internally consistent modeling process. The short-term fuel forecast is based on available futures market prices, spot market prices, and short-term contract prices for the fuels used by the utility. The short-term natural gas price forecast, for instance, is based on the New York Mercantile Exchange (“NYMEX”) futures contract prices for United States natural gas. The NYMEX natural gas futures market is an electric utility industry standard index of future market prices for United States natural gas. The Company blends these forecasts from its short-term forecasts to the Duke Energy Fundamental Forecast to create a long term fuels forecast.

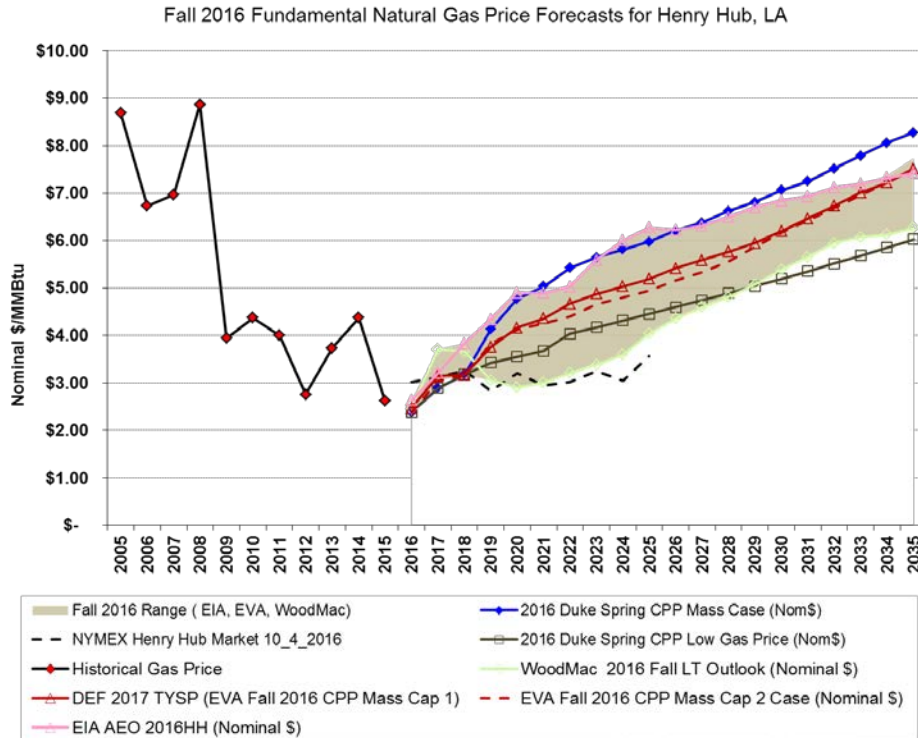
Duke Energy starts its Fundamental Forecast with the assistance of an expert energy consultancy in the field of fuels forecasting in the industry. Duke Energy’s industry consultant for the forecasts used in the instant petition was Energy Ventures Analysis, Inc. (“EVA”). EVA was selected based on, among other factors, its expertise, modeling processes and tools, and market and regulatory expertise. EVA is an industry expert in fuel price forecast modeling and analysis.

Duke Energy relied on EVA to employ its industry leading modeling processes and

databases to develop a long-term energy commodity price forecast that EVA provided Duke Energy. Duke Energy subject matter experts reviewed the EVA assumptions and data inputs in the long-term energy commodity price forecast for consistency with Duke Energy's own internal planning assumptions and data inputs. Duke Energy worked in a collaborative manner with EVA to discuss the input assumptions, model results, and corresponding conclusions in the EVA reference case. Following this review, Duke developed a list of input assumption changes to be considered for the next iteration of the Duke reference case and then works with EVA to facilitate the changes within the constraints of the modeling process. This process continued until both Duke Energy and EVA were satisfied that the data inputs and assumptions in the long-term commodity price forecast are credible and that the results of modeling the assumptions in the forecast are valid.

Duke Energy has employed this process since 2005 and has worked with leading energy consultants like Wood Mackenzie, CERA, ICF, Global Energy/Ventyx, and EVA.

- e. The base fuel forecast was used for the 2017 TYSP. The filings submitted to the Florida Public Service Commission based on the base fuel price forecast submitted in DEF's instant petition includes DEF's 2017 Ten-Year Site Plan, 2017 Standard Offer Contract, and QF Coal Proxy Substitution. However, the fuel price forecasts used in these filings have had no rate impact. The high fuel forecast was used in the DEF's 2016 Ten-Year Site Plan, and 2016 Standard Offer Contract. The low fuel forecast used in this instant petition was not used in any other filing with the Commission.
- f. The chart below shows a range of alternative forecasts along with the long-term fundamental forecast used by DEF in this filing. The long-term DEF forecast is within the range of similar vintage forecasts from industry recognized third parties. Differences among vendors' long-term gas forecasts typically include: basin production cost estimates and extrapolated technological improvements, policy expectations, new gas generation, renewables, new pipelines, and oil prices via associated oil-gas production.



6. Please refer to Page 6, Lines 18-23, and provide the following:
- a. DEF's base fuel price forecast used to support its petition, including commodity, transport and delivered prices, including all related development of the forecast.
 - b. All alternative fuel price forecasts (provided by alternative sources) which DEF used to test the reasonableness of its selected fuel price forecast.
 - c. DEF's high and low fuel price forecasts.
 - d. All publications relied upon to develop DEF's fuel price forecasts used to support its petition.

Response:

- a. See the Excel workbook *2018-01 FPD-DOCKET 20170274-Q6a.xlsx* bearing bates numbers DEF-20170274-000052 through DEF-20170274-000062.
- b. See the response to Question 5f.
- c. See the Excel workbook *2018-01 FPD-DOCKET 20170274-Q6c.xlsx* bearing bates numbers DEF-20170274-000063 through DEF-20170274-000084.
- d. See the response to Question 5d.

7. Please provide DEF's emission price forecast (base case) for 2018 through 2034 (in nominal and real terms) used to determine the CPVRR appearing on Page 7.

Response:

Please see *DEF Attachment Q7* bearing bates numbers DEF-20170274-000085.

For the purpose of question 8, please refer to the Direct Testimony of Christopher A. Menendez, attached to DEF's petition (Document No. 10965-2017), as filed in this docket.

8. Please refer to Page 4, Lines 3-5, which states that DEF will earn a "return on the unamortized balance of the regulatory asset at DEF's retail weighted average cost of capital (WACC)." Please provide a copy of the capital structure and WACC calculation used in the revenue requirement calculations.

Response:

Please see *DEF Attachment Q8 – WACC (as filed in 20170001).pdf* bearing bates numbers DEF-20170274-000086.

Consistent with Order No. PSC-12-0425-PAA-EU, DEF used the May 2017 Surveillance Report capital structure and cost rates, as filed in DEF's Actual /Estimated Filing in Docket 20170001-EI on July 27, 2017. That schedule was filed as Exhibit CAM-2, Part 1, Page 2 of 2 in Docket 20170001-EI.

For the purpose of question 9, please refer to Exhibit No. CAM-1, sponsored by Witness Menendez, and attached to DEF's petition (Document No. 10965-2017), as filed in this docket.

9. Please refer to Page 1 of 2, Line F.
 - a. What is the source and date of the retail MWH sales forecast shown here?
 - b. Is it correct that DEF's retail MWH sales forecast as shown is the same forecast appearing in DEF's 2017 Ten Year Site Plan, Schedule 2.2.1, Column (8), "Total Sales to Ultimate Customers"? If there are any differences, please explain.
 - c. When will DEF's load forecast supplanting the load forecast appearing in DEF's 2017 Ten Year Site Plan be finalized?

Response:

- a. The sales forecast used in DEF's FPD petition is the same sales forecast used to support DEF's 2017 TYSP filed on April 1, 2017.
- b. Yes. There are no differences.
- c. DEF is currently preparing the 2018 TYSP, which will be filed on April 2, 2018;

the load forecast will be finalized with the 2018 TYSP.

For the purpose of questions 10-12, please refer to Exhibit No. BMHB-3, sponsored by Witness Borsch, and attached to DEF's petition (Document No. 10965-2017), as filed in this docket.

10. Please provide example calculations for each category, and detail all assumptions for the following:
- a. Regulatory Asset Amortization
 - b. Interest Expense
 - c. Return on Equity
 - d. Income Tax
 - e. Total Cost of FPD Buyout
 - f. DEF System impact
 - g. Avoided Energy Payment of PPA
 - h. Net System Impact from Termination and Net Customer (Savings)/Cost

Response:

Please refer to DEF Attachment Q10_378GWh and DEF Attachment Q10_421GWh bearing bates numbers DEF-20170274-000087 through DEF-20170274-000094 for the calculations of each report line. DEF has updated the results to reflect the reduction in the Federal Corporate Income Tax Rate from 35% to 21%.

- a. The Regulatory Asset Amortization reflects the annual amortization expense of the \$105 million through the end of the contract period. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.
- b. Interest Expense reflects the interest return on the average regulatory asset balance at DEF's Retail WACC for debt. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.
- c. Return on Equity reflects the equity return on the average regulatory asset balance at DEF Retail WACC for equity. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.
- d. Income Tax reflects gross-up for income taxes on DEF's Return on Equity, reported on line c. In DEF's attached calculation response, the Return on Equity is grossed-up by DEF's corporate income tax rate of 25.345%. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.
- e. Total Cost of FPD Buyout is the sum of lines a – d. This represents the Annual

Revenue Requirement. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.

- f. DEF System Impact reflects the net system cost to replace the energy previously provided by FPD. This cost is more than offset by the elimination of energy payments to FPD; this is reflected below on line h. This is shown on page 2 of 3 in each of DEF's Q10 Attachments, respectively.
 - g. Avoided Energy Payment of PPA reflects the system savings to customers by terminating the FPD contract and avoiding the energy payments. This is calculated by multiplying the energy provided by FPD (MWhs) times the contractual energy rate (\$/MWh). This is shown in on page 3 of 3 in each of DEF's Q10 Attachments, respectively.
 - h. Net System Impact from Termination and Net Customer (Savings)/Cost reflect the net (savings) or cost to customers as a result of terminating the FPD contract. As shown in DEF's attached calculation, after adjusting for the reduction in the Federal Corporate Income Tax Rate, DEF now expects this transaction to generate between \$90 - \$125 million in customer savings. This is shown on page 1 of 3 in each of DEF's Q10 Attachments, respectively.
11. Please provide a modified version of Exhibit No. BMHB-3 with Emissions Costs (CO₂) shown separately. This should be done for all 12 sensitivities done shown on Witness Borsch's direct testimony, Page 7. Please provide in electronic (Excel) format. Please detail all assumptions made in this evaluation.

Response:

See the Excel workbook *2018-01 FPD-DOCKET 20170274-Q11.xlsx* bearing bates numbers DEF-20170274-000095 through DEF-20170274-000106.

12. Please provide the modified version of EXH BHMB-3 that assumes an annual output (GWh) that would result in a Net Customers (Savings)/Cost of zero. Please do this for both Base Case with CO₂ and No CO₂. Please provide this in electronic (Excel) format. Please detail all assumptions made in this evaluation.

Response:

DEF did not perform the detailed modeling of a "breakeven" case as described in this

question, but modeled selected scenarios that are consistent with the historic and projected operation of the FDP facility, as provided in the petition. In consideration of this question, DEF extrapolated from the data provided in the instant petition the approximate annual output that would result in a net customer savings of zero. The Base Case with CO2 results in approximately 300 GWh per year; and the Base Case without CO2 results in approximately 310 GWh per year. When adjusting for the expected impacts of the recent tax changes (see also Question 13), the Base Case with CO2 results in approximately 279 GWh per year; and the Base Case without CO2 results in approximately 296 GWh per year.

13. Did DEF incorporate the recent tax changes in its revenue requirement in this petition? If not, please provide an updated calculation that incorporates the tax changes.

Response:

Please refer to the Excel spreadsheet *DEF Attachment Q13.xlsx* bearing bates numbers DEF-20170274-000107 through DEF-20170274-000110.

DEF has provided updated version of both BMH-3 (Attachment Pages 1-2) and CAM-1 (Attachment Pages 3-4) to reflect the impact. With the reduction in the Federal Corporate Income Tax rate, the Termination Agreement is now projected to save customers between \$90 - \$125 million over the FPD QF PPA term.

14. Please identify the assumptions used by DEF in its CO2 price forecast.
- a. Please identify the model or methods used by DEF to forecast the price of CO2
 - b. Please identify all data sources used by DEF in its forecast of the price of CO2.
 - c. Please explain why DEF considers the data sources identified in 14.b. credible.
 - d. Please identify any other FPSC dockets where the assumptions, methods, or data sources cited in 14.a. or 14.b were used.

Response:

- a. The CO2 price forecast used in the 2017 TYSP and in this filing was prepared in 2016 and based on the anticipated effects of the Clean Power Plan promulgated by USEPA in 2015. To create this price forecast, DEF estimated the CO2 reductions that would be required by the Clean Power Plan and used DEF's production cost modeling tools to create an estimate of the costs that would be incurred to meet those reduction targets. In the absence of actual market information, DEF assumed that the DEF cost reduction costs would be representative of the market and that these costs could be used as a proxy for CO2 emission prices. Based on the reduction targets specified by the CPP,

DEF and its customers could incur these costs either through increased operating costs to achieve the reductions or through market purchases. From the standpoint of total system cost and CPVRR, these would yield the same result.

- b. As noted in the response to a) above, DEF used the requirements stated in the CPP along with analysis of the potential impacts of that rule and DEF's modeled projections of the DEF system performance and costs.
 - c. DEF's projections were based on a promulgated EPA regulation and DEF's well established models of DEF's system performance and costs.
 - d. This data was used in DEF's 2017 TYSP filings.
15. Please provide a summary of all existing federal, state, and local government policies and rules that regulate CO₂ emissions, and specify each such policy's or rule's economic impacts and associated compliance cost.

Response:

The United States Environmental Protection Agency, (EPA) regulates greenhouse gases, (GHGs) under the Clean Air Act. Generally, this regulation is generally evident in DEF's compliance with air emissions standards, CEMS, and projects that may fall under the environmental cost recovery clause. In addition, the American Recovery and Reinvestment Act of 2009 indirectly impacts CO₂ emissions utilizing direct spending and tax credits for clean energy advancement throughout the U.S. Finally, the Public Utility Regulatory Policies Act of 1978 requiring purchases from renewable qualifying facilities indirectly impacts CO₂ emissions by avoiding or deferring DEF fossil fueled generation.

Local clean energy policies and subsidies continue to reflect the public's expectation and sentiment of advancing a low carbon future for the long-term.

16. Please provide a summary of the current status of the United States' CO₂ emission market.
- e. Has the CO₂ emission cost been actively charged/traded in the United States?
 - f. What was the average CO₂ emission cost in 2013, 2014, 2015 and 2016, respectively, in the United States' emission market?
 - g. What is the current CO₂ emission cost in the United States' emission market?

Response:

- e. There is no national CO₂ emissions market applicable to utility emissions. Several regions of the country have launched regional trading markets including a group of nine northeastern states spearheaded by New York which formed the Regional Greenhouse Gas Initiative (RGGI) and the state of

California which has implemented a state based cap and trade program and has been active within the Western Climate Initiative which also includes trading programs in Quebec and Ontario. Each of these programs issues CO2 emissions allowances for which there is a trading price. None of these programs directly affects DEF.

- f. As noted in a) above, there is not currently a nationally established US emissions market for CO2.
 - g. As noted in a) above, there is not currently a nationally established US emissions market for CO2.
17. Historically, has DEF ever incurred any CO2 emission costs?
- h. If your response to question 17 is affirmative, please provide details about the transaction(s), as well as the corresponding cost recovery.
 - i. If your response to question 17 is negative, when does DEF expect that it will be affected by a CO2 emission regulation/rule in the near future?

Response:

- h. DEF has never incurred direct costs related to its CO2 emissions.
- i. It is uncertain if or when DEF might be directly affected by a CO2 emission rule in the near future. The status of the U.S. EPA's Clean Power Plan (CPP) rule, which would affect DEF if it were to take effect, remains on hold. The stay of the rule that was issued by the U.S. Supreme Court in February 2016 remains in effect, litigation in the D.C. Circuit is on hold, and in October 2017, the EPA proposed a rule to formally repeal the rule. The EPA has issued an advance notice of proposed rulemaking in which it solicits public feedback on numerous aspects of a possible replacement rule for the CPP.

While DEF cannot predict how this issue will unfold, one possible outcome would be a repeal of the CPP along with EPA developing a new rule to regulate CO2 emissions from electric generating units. While such a rule would likely have an impact on DEF, because DEF does not know what the requirements of such a rule might be, DEF cannot assess at this time what the impact might be. While the timing of the impact of any such rule on DEF is unknown, it seems reasonable that if such a rule were to be implemented, it could take effect sometime within the next five years.

DEF does not expect there to be significant federal or state legislation enacted that would result in the regulation of CO2 emissions from electric generating units under the current administration.

Despite the ongoing uncertainty, DEF continues to believe that the public pressure to control greenhouse gas emissions will in time lead to the establishment of regulations placing an explicit or implicit cost on CO2 emissions from power plants. DEF continues to represent this potential outcome in its planning scenarios.

18. Given President Trump's announcement that the U.S. will leave the Paris Climate Accord, what is the expected impact on future U.S. CO2 emission costs?

Response:

As discussed in DEF's response to question 16, there are regional programs in place that regulate air emissions, including CO2 emissions from electric generating units and have resulted in a price being placed on CO2 emissions; however, none of those programs have a direct impact on DEF. President Trump's announcement that the U.S. will leave the Paris Accord will not change this situation. The Paris Climate Accord does not currently impose any regulatory requirements on the U.S.

19. Please provide in spreadsheet form the anticipated annual reductions in CO2 and the cumulative CO2 emissions over the remaining term of the FPD QF PPA (May 2018-May 2034).

Response:

Please see DEF's response to Question 3.

20. Please provide any alternative emission price forecasts that DEF used to assess the reasonableness of its base case emission price forecasts.

Response:

Please refer to the response to question 14a. DEF calculated the CO2 price used in the 2017 TYSP and in this instant petition based on the anticipated effects of the Clean Power Plan on the DEF utility. While DEF referred to estimates and documents published at the time by the EPA, DEF did not specifically benchmark its forecast against other forecasts.

| CO2 Ktons - With CO2 Costs | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Average | Cumulative |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------------|
| Base 378 Gwh | 25,239 | 22,774 | 24,184 | 26,047 | 25,743 | 26,004 | 26,008 | 22,890 | 23,481 | 22,862 | 22,630 | 22,549 | 22,806 | 23,774 | 24,367 | 24,866 | 25,104 | | |
| BuyOut 378 Gwh | 25,146 | 22,601 | 24,074 | 25,911 | 25,640 | 25,884 | 25,881 | 22,827 | 23,419 | 22,709 | 22,463 | 22,284 | 22,596 | 23,561 | 24,206 | 24,778 | 25,035 | | |
| CO2 Ktons reduction | 93 | 173 | 110 | 136 | 103 | 119 | 127 | 64 | 63 | 153 | 167 | 265 | 210 | 213 | 161 | 88 | 70 | 136 | 2,314 |
| Base 378 Gwh High Fuel | 23,811 | 23,104 | 25,336 | 26,070 | 26,192 | 26,335 | 26,220 | 25,610 | 25,824 | 25,266 | 25,376 | 25,447 | 25,385 | 25,704 | 25,734 | 25,813 | 25,879 | | |
| BuyOut 378 Gwh High Fuel | 23,710 | 23,040 | 25,199 | 25,930 | 26,050 | 26,192 | 26,078 | 25,514 | 25,710 | 25,125 | 25,225 | 25,299 | 25,259 | 25,566 | 25,527 | 25,665 | 25,802 | | |
| CO2 Ktons reduction | 101 | 64 | 136 | 140 | 143 | 143 | 143 | 96 | 114 | 142 | 150 | 149 | 126 | 138 | 208 | 149 | 77 | 130 | 2,217 |
| Base 378 Gwh Low Fuel | 26,253 | 24,735 | 24,659 | 24,985 | 23,787 | 22,566 | 22,412 | 21,084 | 20,997 | 20,293 | 20,340 | 20,213 | 20,070 | 20,349 | 20,553 | 21,052 | 21,186 | | |
| BuyOut 378 Gwh Low Fuel | 26,177 | 24,610 | 24,543 | 24,870 | 23,680 | 22,418 | 22,288 | 20,853 | 20,902 | 20,275 | 20,233 | 20,005 | 19,991 | 20,259 | 20,430 | 20,956 | 21,163 | | |
| CO2 Ktons reduction | 77 | 125 | 116 | 115 | 107 | 148 | 123 | 231 | 96 | 18 | 107 | 208 | 80 | 90 | 123 | 96 | 23 | 111 | 1,883 |

| CO2 Ktons - No CO2 Costs | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Average | Cumulative |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------------|
| Base 378 Gwh | 25,239 | 22,774 | 24,184 | 26,047 | 25,743 | 26,004 | 26,008 | 26,017 | 26,190 | 25,610 | 25,688 | 25,761 | 25,680 | 25,927 | 25,943 | 25,945 | 25,979 | | |
| BuyOut 378 Gwh | 25,146 | 22,601 | 24,074 | 25,911 | 25,640 | 25,884 | 25,881 | 25,873 | 26,059 | 25,466 | 25,528 | 25,591 | 25,549 | 25,750 | 25,749 | 25,792 | 25,906 | | |
| CO2 Ktons reduction | 93 | 173 | 110 | 136 | 103 | 119 | 127 | 144 | 131 | 144 | 160 | 170 | 131 | 177 | 195 | 153 | 74 | 138 | 2,339 |
| Base 378 Gwh High Fuel | 23,811 | 23,104 | 25,336 | 26,070 | 26,192 | 26,335 | 26,220 | 26,164 | 26,292 | 25,742 | 25,803 | 25,827 | 25,728 | 25,968 | 25,968 | 25,949 | 25,996 | | |
| BuyOut 378 Gwh High Fuel | 23,710 | 23,040 | 25,199 | 25,930 | 26,050 | 26,192 | 26,078 | 26,011 | 26,154 | 25,571 | 25,631 | 25,660 | 25,593 | 25,795 | 25,773 | 25,798 | 25,911 | | |
| CO2 Ktons reduction | 101 | 64 | 136 | 140 | 143 | 143 | 143 | 153 | 138 | 171 | 171 | 168 | 135 | 173 | 195 | 151 | 84 | 142 | 2,409 |
| Base 378 Gwh Low Fuel | 26,253 | 24,735 | 24,659 | 24,985 | 23,787 | 22,566 | 22,412 | 22,277 | 22,203 | 21,405 | 21,269 | 20,992 | 21,631 | 22,009 | 22,959 | 24,822 | 25,434 | | |
| BuyOut 378 Gwh Low Fuel | 26,177 | 24,610 | 24,543 | 24,870 | 23,680 | 22,418 | 22,288 | 22,187 | 22,070 | 21,309 | 21,112 | 20,750 | 21,488 | 21,949 | 22,693 | 24,750 | 25,367 | | |
| CO2 Ktons reduction | 77 | 125 | 116 | 115 | 107 | 148 | 123 | 90 | 134 | 96 | 156 | 242 | 143 | 60 | 266 | 72 | 67 | 126 | 2,138 |

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|------------------|------|------|------|------|------|------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| CO2 Costs \$/Ton | | | | | | \$ - | \$ - | \$ 14.50 | \$ 14.40 | \$ 14.40 | \$ 14.40 | \$ 14.30 | \$ 14.30 | \$ 14.20 | \$ 14.20 | \$ 14.10 | \$ 14.10 |

| CO2 Cost \$M | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|--------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base 378 Gwh | \$1,592 | - | - | - | - | - | - | - | 332 | 338 | 329 | 326 | 322 | 326 | 338 | 346 | 351 | 354 |
| BuyOut 378 Gwh | \$1,582 | - | - | - | - | - | - | - | 331 | 337 | 327 | 323 | 319 | 323 | 335 | 344 | 349 | 353 |
| BuyOut Savings | \$10 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1 | \$1 | \$2 | \$2 | \$4 | \$3 | \$3 | \$2 | \$1 | \$1 |
| Base 378 Gwh High Fuel | \$1,741 | - | - | - | - | - | - | - | 371 | 372 | 364 | 365 | 364 | 363 | 365 | 365 | 364 | 365 |
| BuyOut 378 Gwh High Fuel | \$1,732 | - | - | - | - | - | - | - | 370 | 370 | 362 | 363 | 362 | 361 | 363 | 362 | 362 | 364 |
| BuyOut Savings | \$9 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$3 | \$2 | \$1 |
| Base 378 Gwh High Fuel | \$1,402 | - | - | - | - | - | - | - | 306 | 302 | 292 | 293 | 289 | 287 | 289 | 292 | 297 | 299 |
| BuyOut 378 Gwh High Fuel | \$1,395 | - | - | - | - | - | - | - | 302 | 301 | 292 | 291 | 286 | 286 | 288 | 290 | 295 | 298 |
| BuyOut Savings | \$8 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3 | \$1 | \$0 | \$2 | \$3 | \$1 | \$1 | \$2 | \$1 | \$0 |

| CO2 Ktons - With CO2 Costs | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Average | Cumulative |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------------|
| Base 421 Gwh | 25,255 | 22,790 | 24,198 | 26,063 | 25,762 | 26,020 | 26,023 | 22,902 | 23,492 | 22,874 | 22,683 | 22,623 | 22,776 | 23,769 | 24,407 | 24,884 | 25,105 | | |
| BuyOut 421 Gwh | 25,151 | 22,601 | 24,074 | 25,911 | 25,640 | 25,884 | 25,881 | 22,827 | 23,419 | 22,709 | 22,463 | 22,284 | 22,596 | 23,561 | 24,206 | 24,778 | 25,035 | | |
| CO2 Ktons reduction | 104 | 188 | 124 | 152 | 122 | 136 | 143 | 75 | 74 | 165 | 220 | 338 | 180 | 208 | 201 | 106 | 70 | 153 | 2,605 |
| Base 421 Gwh High Fuel | 23,825 | 23,116 | 25,351 | 26,086 | 26,210 | 26,354 | 26,237 | 25,625 | 25,840 | 25,284 | 25,392 | 25,465 | 25,404 | 25,730 | 25,772 | 25,832 | 25,879 | | |
| BuyOut 421 Gwh High Fuel | 23,714 | 23,040 | 25,199 | 25,930 | 26,050 | 26,192 | 26,078 | 25,514 | 25,710 | 25,125 | 25,225 | 25,299 | 25,259 | 25,566 | 25,527 | 25,665 | 25,802 | | |
| CO2 Ktons reduction | 111 | 76 | 151 | 156 | 160 | 161 | 159 | 111 | 130 | 160 | 166 | 166 | 145 | 163 | 245 | 167 | 76 | 147 | 2,505 |
| Base 421 Gwh Low Fuel | 26,268 | 24,745 | 24,673 | 24,997 | 23,799 | 22,576 | 22,426 | 21,099 | 21,010 | 20,316 | 20,344 | 20,226 | 20,088 | 20,365 | 20,563 | 21,062 | 21,216 | | |
| BuyOut 421 Gwh Low Fuel | 26,182 | 24,610 | 24,543 | 24,870 | 23,680 | 22,418 | 22,288 | 20,853 | 20,902 | 20,275 | 20,233 | 20,005 | 19,991 | 20,259 | 20,430 | 20,956 | 21,163 | | |
| CO2 Ktons reduction | 86 | 135 | 130 | 128 | 120 | 158 | 138 | 245 | 108 | 41 | 111 | 220 | 97 | 106 | 133 | 106 | 52 | 124 | 2,116 |

| CO2 Ktons - No CO2 Costs | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Average | Cumulative |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------------|
| Base 421 Gwh | 25,255 | 22,790 | 24,198 | 26,063 | 25,762 | 26,020 | 26,023 | 26,031 | 26,208 | 25,631 | 25,703 | 25,785 | 25,700 | 25,955 | 25,978 | 25,960 | 25,986 | | |
| BuyOut 421 Gwh | 25,151 | 22,601 | 24,074 | 25,911 | 25,640 | 25,884 | 25,881 | 25,873 | 26,059 | 25,466 | 25,528 | 25,591 | 25,549 | 25,750 | 25,749 | 25,792 | 25,906 | | |
| CO2 Ktons reduction | 104 | 188 | 124 | 152 | 122 | 136 | 143 | 158 | 149 | 165 | 175 | 194 | 151 | 204 | 229 | 168 | 81 | 155 | 2,642 |
| Base 421 Gwh High Fuel | 23,825 | 23,116 | 25,351 | 26,086 | 26,210 | 26,354 | 26,237 | 26,179 | 26,312 | 25,764 | 25,824 | 25,852 | 25,751 | 25,994 | 25,994 | 25,966 | 26,001 | | |
| BuyOut 421 Gwh High Fuel | 23,714 | 23,040 | 25,199 | 25,930 | 26,050 | 26,192 | 26,078 | 26,011 | 26,154 | 25,571 | 25,631 | 25,660 | 25,593 | 25,795 | 25,773 | 25,798 | 25,911 | | |
| CO2 Ktons reduction | 111 | 76 | 151 | 156 | 160 | 161 | 159 | 168 | 157 | 193 | 193 | 192 | 158 | 199 | 221 | 168 | 90 | 160 | 2,716 |
| Base 421 Gwh Low Fuel | 26,268 | 24,745 | 24,673 | 24,997 | 23,799 | 22,576 | 22,426 | 22,289 | 22,219 | 21,403 | 21,281 | 21,066 | 21,617 | 22,087 | 23,020 | 24,856 | 25,431 | | |
| BuyOut 421 Gwh Low Fuel | 26,182 | 24,610 | 24,543 | 24,870 | 23,680 | 22,418 | 22,288 | 22,187 | 22,070 | 21,309 | 21,112 | 20,750 | 21,488 | 21,949 | 22,693 | 24,750 | 25,367 | | |
| CO2 Ktons reduction | 86 | 135 | 130 | 128 | 120 | 158 | 138 | 101 | 149 | 94 | 169 | 316 | 129 | 138 | 327 | 105 | 64 | 146 | 2,488 |

| | | <u>2018</u> | <u>2019</u> | <u>2020</u> | <u>2021</u> | <u>2022</u> | <u>2023</u> | <u>2024</u> | <u>2025</u> | <u>2026</u> | <u>2027</u> | <u>2028</u> | <u>2029</u> | <u>2030</u> | <u>2031</u> | <u>2032</u> | <u>2033</u> | <u>2034</u> |
|--------------------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| CO2 Costs \$/Ton | | | | | | | \$ - | \$ - | \$ 14.50 | \$ 14.40 | \$ 14.40 | \$ 14.40 | \$ 14.30 | \$ 14.30 | \$ 14.20 | \$ 14.20 | \$ 14.10 | \$ 14.10 |
| CO2 Cost \$M | | | | | | | | | | | | | | | | | | |
| Base 421 Gwh | \$1,593 | - | - | - | - | - | - | - | 332 | 338 | 329 | 327 | 324 | 326 | 338 | 347 | 351 | 354 |
| BuyOut 421 Gwh | \$1,582 | - | - | - | - | - | - | - | 331 | 337 | 327 | 323 | 319 | 323 | 335 | 344 | 349 | 353 |
| BuyOut Savings | \$11 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1 | \$1 | \$2 | \$3 | \$5 | \$3 | \$3 | \$3 | \$1 | \$1 |
| Base 421 Gwh High Fuel | \$1,742 | - | - | - | - | - | - | - | 372 | 372 | 364 | 366 | 364 | 363 | 365 | 366 | 364 | 365 |
| BuyOut 421 Gwh High Fuel | \$1,732 | - | - | - | - | - | - | - | 370 | 370 | 362 | 363 | 362 | 361 | 363 | 362 | 362 | 364 |
| BuyOut Savings | \$10 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$2 | \$3 | \$2 | \$1 |
| Base 421 Gwh High Fuel | \$1,403 | - | - | - | - | - | - | - | 306 | 303 | 293 | 293 | 289 | 287 | 289 | 292 | 297 | 299 |
| BuyOut 421 Gwh High Fuel | \$1,395 | - | - | - | - | - | - | - | 302 | 301 | 292 | 291 | 286 | 286 | 288 | 290 | 295 | 298 |
| BuyOut Savings | \$9 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4 | \$2 | \$1 | \$2 | \$3 | \$1 | \$2 | \$2 | \$1 | \$1 |

| Year | COAL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|------|--------------------------|-----------------------------------|------------------------------|
| 2018 | \$ 1.037 | \$ 1.243 | \$ 2.281 |
| 2019 | \$ 1.197 | \$ 1.210 | \$ 2.407 |
| 2020 | \$ 1.233 | \$ 1.241 | \$ 2.473 |
| 2021 | \$ 1.263 | \$ 1.272 | \$ 2.534 |
| 2022 | \$ 1.865 | \$ 1.303 | \$ 3.169 |
| 2023 | \$ 1.901 | \$ 1.336 | \$ 3.237 |
| 2024 | \$ 1.920 | \$ 1.369 | \$ 3.290 |
| 2025 | \$ 1.958 | \$ 1.404 | \$ 3.361 |
| 2026 | \$ 1.996 | \$ 1.439 | \$ 3.434 |
| 2027 | \$ 2.034 | \$ 1.475 | \$ 3.509 |
| 2028 | \$ 2.073 | \$ 1.512 | \$ 3.585 |
| 2029 | \$ 2.113 | \$ 1.549 | \$ 3.662 |
| 2030 | \$ 2.131 | \$ 1.588 | \$ 3.719 |
| 2031 | \$ 2.193 | \$ 1.628 | \$ 3.821 |
| 2032 | \$ 2.233 | \$ 1.668 | \$ 3.902 |
| 2033 | \$ 2.275 | \$ 1.710 | \$ 3.985 |
| 2034 | \$ 2.318 | \$ 1.753 | \$ 4.071 |

| Date | Base HH Regular Supply Cost | Basis and Transportation (\$/Mmbtu) | Delivered Price (\$/Mmbtu) |
|-----------|-----------------------------|-------------------------------------|----------------------------|
| 1/1/2018 | \$ 3.34 | \$ 0.139 | \$ 3.481 |
| 2/1/2018 | \$ 3.30 | \$ 0.136 | \$ 3.440 |
| 3/1/2018 | \$ 3.22 | \$ 0.132 | \$ 3.351 |
| 4/1/2018 | \$ 2.83 | \$ 0.159 | \$ 2.987 |
| 5/1/2018 | \$ 2.78 | \$ 0.161 | \$ 2.945 |
| 6/1/2018 | \$ 2.81 | \$ 0.171 | \$ 2.981 |
| 7/1/2018 | \$ 2.84 | \$ 0.205 | \$ 3.042 |
| 8/1/2018 | \$ 2.85 | \$ 0.213 | \$ 3.059 |
| 9/1/2018 | \$ 2.83 | \$ 0.174 | \$ 3.005 |
| 10/1/2018 | \$ 2.86 | \$ 0.172 | \$ 3.033 |
| 11/1/2018 | \$ 2.92 | \$ 0.125 | \$ 3.046 |
| 12/1/2018 | \$ 3.07 | \$ 0.127 | \$ 3.197 |
| 1/1/2019 | \$ 3.17 | \$ 0.142 | \$ 3.317 |
| 2/1/2019 | \$ 3.14 | \$ 0.141 | \$ 3.278 |
| 3/1/2019 | \$ 3.07 | \$ 0.140 | \$ 3.208 |
| 4/1/2019 | \$ 2.76 | \$ 0.191 | \$ 2.955 |
| 5/1/2019 | \$ 2.75 | \$ 0.191 | \$ 2.943 |
| 6/1/2019 | \$ 2.78 | \$ 0.191 | \$ 2.974 |
| 7/1/2019 | \$ 2.82 | \$ 0.192 | \$ 3.011 |
| 8/1/2019 | \$ 2.83 | \$ 0.192 | \$ 3.024 |
| 9/1/2019 | \$ 2.82 | \$ 0.192 | \$ 3.009 |
| 10/1/2019 | \$ 2.84 | \$ 0.192 | \$ 3.034 |
| 11/1/2019 | \$ 2.91 | \$ 0.127 | \$ 3.038 |
| 12/1/2019 | \$ 3.06 | \$ 0.130 | \$ 3.188 |
| 1/1/2020 | \$ 3.23 | \$ 0.132 | \$ 3.359 |
| 2/1/2020 | \$ 3.23 | \$ 0.132 | \$ 3.364 |
| 3/1/2020 | \$ 3.21 | \$ 0.132 | \$ 3.339 |
| 4/1/2020 | \$ 2.99 | \$ 0.204 | \$ 3.198 |
| 5/1/2020 | \$ 3.02 | \$ 0.205 | \$ 3.229 |
| 6/1/2020 | \$ 3.08 | \$ 0.205 | \$ 3.284 |
| 7/1/2020 | \$ 3.20 | \$ 0.207 | \$ 3.411 |
| 8/1/2020 | \$ 3.34 | \$ 0.209 | \$ 3.544 |
| 9/1/2020 | \$ 3.32 | \$ 0.209 | \$ 3.527 |
| 10/1/2020 | \$ 3.36 | \$ 0.209 | \$ 3.565 |
| 11/1/2020 | \$ 3.56 | \$ 0.136 | \$ 3.693 |
| 12/1/2020 | \$ 3.79 | \$ 0.140 | \$ 3.934 |
| 1/1/2021 | \$ 3.94 | \$ 0.142 | \$ 4.081 |
| 2/1/2021 | \$ 3.91 | \$ 0.141 | \$ 4.052 |
| 3/1/2021 | \$ 3.86 | \$ 0.140 | \$ 4.004 |
| 4/1/2021 | \$ 3.76 | \$ 0.194 | \$ 3.951 |
| 5/1/2021 | \$ 3.76 | \$ 0.194 | \$ 3.950 |
| 6/1/2021 | \$ 3.76 | \$ 0.194 | \$ 3.954 |
| 7/1/2021 | \$ 3.97 | \$ 0.197 | \$ 4.169 |
| 8/1/2021 | \$ 4.20 | \$ 0.201 | \$ 4.396 |

| | | | |
|-----------|---------|----------|----------|
| 9/1/2021 | \$ 4.07 | \$ 0.199 | \$ 4.272 |
| 10/1/2021 | \$ 4.06 | \$ 0.198 | \$ 4.258 |
| 11/1/2021 | \$ 4.37 | \$ 0.150 | \$ 4.515 |
| 12/1/2021 | \$ 4.65 | \$ 0.154 | \$ 4.806 |
| 1/1/2022 | \$ 4.88 | \$ 0.155 | \$ 5.033 |
| 2/1/2022 | \$ 4.76 | \$ 0.153 | \$ 4.910 |
| 3/1/2022 | \$ 4.63 | \$ 0.152 | \$ 4.786 |
| 4/1/2022 | \$ 4.55 | \$ 0.207 | \$ 4.757 |
| 5/1/2022 | \$ 4.47 | \$ 0.206 | \$ 4.672 |
| 6/1/2022 | \$ 4.38 | \$ 0.205 | \$ 4.587 |
| 7/1/2022 | \$ 4.60 | \$ 0.208 | \$ 4.810 |
| 8/1/2022 | \$ 4.82 | \$ 0.211 | \$ 5.032 |
| 9/1/2022 | \$ 4.59 | \$ 0.208 | \$ 4.795 |
| 10/1/2022 | \$ 4.50 | \$ 0.206 | \$ 4.709 |
| 11/1/2022 | \$ 4.80 | \$ 0.157 | \$ 4.953 |
| 12/1/2022 | \$ 5.05 | \$ 0.161 | \$ 5.209 |
| 1/1/2023 | \$ 5.10 | \$ 0.159 | \$ 5.256 |
| 2/1/2023 | \$ 4.97 | \$ 0.157 | \$ 5.127 |
| 3/1/2023 | \$ 4.84 | \$ 0.155 | \$ 4.998 |
| 4/1/2023 | \$ 4.75 | \$ 0.212 | \$ 4.966 |
| 5/1/2023 | \$ 4.67 | \$ 0.211 | \$ 4.877 |
| 6/1/2023 | \$ 4.58 | \$ 0.209 | \$ 4.788 |
| 7/1/2023 | \$ 4.81 | \$ 0.213 | \$ 5.022 |
| 8/1/2023 | \$ 5.04 | \$ 0.216 | \$ 5.254 |
| 9/1/2023 | \$ 4.79 | \$ 0.213 | \$ 5.005 |
| 10/1/2023 | \$ 4.70 | \$ 0.211 | \$ 4.916 |
| 11/1/2023 | \$ 5.01 | \$ 0.161 | \$ 5.172 |
| 12/1/2023 | \$ 5.28 | \$ 0.165 | \$ 5.440 |
| 1/1/2024 | \$ 5.26 | \$ 0.162 | \$ 5.422 |
| 2/1/2024 | \$ 5.13 | \$ 0.160 | \$ 5.288 |
| 3/1/2024 | \$ 5.00 | \$ 0.158 | \$ 5.155 |
| 4/1/2024 | \$ 4.91 | \$ 0.216 | \$ 5.122 |
| 5/1/2024 | \$ 4.81 | \$ 0.215 | \$ 5.030 |
| 6/1/2024 | \$ 4.73 | \$ 0.228 | \$ 4.953 |
| 7/1/2024 | \$ 4.96 | \$ 0.232 | \$ 5.195 |
| 8/1/2024 | \$ 5.20 | \$ 0.237 | \$ 5.435 |
| 9/1/2024 | \$ 4.95 | \$ 0.232 | \$ 5.178 |
| 10/1/2024 | \$ 4.85 | \$ 0.230 | \$ 5.085 |
| 11/1/2024 | \$ 5.17 | \$ 0.180 | \$ 5.351 |
| 12/1/2024 | \$ 5.44 | \$ 0.185 | \$ 5.628 |
| 1/1/2025 | \$ 5.42 | \$ 0.182 | \$ 5.607 |
| 2/1/2025 | \$ 5.29 | \$ 0.180 | \$ 5.469 |
| 3/1/2025 | \$ 5.15 | \$ 0.177 | \$ 5.331 |
| 4/1/2025 | \$ 5.06 | \$ 0.236 | \$ 5.296 |
| 5/1/2025 | \$ 4.97 | \$ 0.234 | \$ 5.200 |
| 6/1/2025 | \$ 4.87 | \$ 0.232 | \$ 5.106 |
| 7/1/2025 | \$ 5.12 | \$ 0.237 | \$ 5.355 |

| | | | |
|-----------|---------|----------|----------|
| 8/1/2025 | \$ 5.36 | \$ 0.241 | \$ 5.603 |
| 9/1/2025 | \$ 5.10 | \$ 0.237 | \$ 5.337 |
| 10/1/2025 | \$ 5.01 | \$ 0.235 | \$ 5.242 |
| 11/1/2025 | \$ 5.33 | \$ 0.183 | \$ 5.517 |
| 12/1/2025 | \$ 5.61 | \$ 0.189 | \$ 5.803 |
| 1/1/2026 | \$ 5.66 | \$ 0.187 | \$ 5.847 |
| 2/1/2026 | \$ 5.52 | \$ 0.185 | \$ 5.703 |
| 3/1/2026 | \$ 5.38 | \$ 0.182 | \$ 5.559 |
| 4/1/2026 | \$ 5.28 | \$ 0.242 | \$ 5.521 |
| 5/1/2026 | \$ 5.18 | \$ 0.240 | \$ 5.421 |
| 6/1/2026 | \$ 5.08 | \$ 0.238 | \$ 5.323 |
| 7/1/2026 | \$ 5.34 | \$ 0.243 | \$ 5.583 |
| 8/1/2026 | \$ 5.59 | \$ 0.248 | \$ 5.841 |
| 9/1/2026 | \$ 5.32 | \$ 0.242 | \$ 5.564 |
| 10/1/2026 | \$ 5.22 | \$ 0.241 | \$ 5.465 |
| 11/1/2026 | \$ 5.57 | \$ 0.188 | \$ 5.753 |
| 12/1/2026 | \$ 5.86 | \$ 0.194 | \$ 6.051 |
| 1/1/2027 | \$ 5.84 | \$ 0.191 | \$ 6.029 |
| 2/1/2027 | \$ 5.69 | \$ 0.188 | \$ 5.881 |
| 3/1/2027 | \$ 5.55 | \$ 0.186 | \$ 5.733 |
| 4/1/2027 | \$ 5.45 | \$ 0.247 | \$ 5.692 |
| 5/1/2027 | \$ 5.35 | \$ 0.245 | \$ 5.590 |
| 6/1/2027 | \$ 5.25 | \$ 0.243 | \$ 5.488 |
| 7/1/2027 | \$ 5.51 | \$ 0.248 | \$ 5.756 |
| 8/1/2027 | \$ 5.77 | \$ 0.253 | \$ 6.023 |
| 9/1/2027 | \$ 5.49 | \$ 0.247 | \$ 5.737 |
| 10/1/2027 | \$ 5.39 | \$ 0.245 | \$ 5.635 |
| 11/1/2027 | \$ 5.74 | \$ 0.192 | \$ 5.933 |
| 12/1/2027 | \$ 6.04 | \$ 0.198 | \$ 6.241 |
| 1/1/2028 | \$ 6.02 | \$ 0.195 | \$ 6.220 |
| 2/1/2028 | \$ 5.87 | \$ 0.192 | \$ 6.067 |
| 3/1/2028 | \$ 5.72 | \$ 0.190 | \$ 5.913 |
| 4/1/2028 | \$ 5.62 | \$ 0.252 | \$ 5.871 |
| 5/1/2028 | \$ 5.52 | \$ 0.250 | \$ 5.765 |
| 6/1/2028 | \$ 5.41 | \$ 0.248 | \$ 5.660 |
| 7/1/2028 | \$ 5.68 | \$ 0.253 | \$ 5.937 |
| 8/1/2028 | \$ 5.95 | \$ 0.258 | \$ 6.212 |
| 9/1/2028 | \$ 5.67 | \$ 0.252 | \$ 5.917 |
| 10/1/2028 | \$ 5.56 | \$ 0.250 | \$ 5.812 |
| 11/1/2028 | \$ 5.92 | \$ 0.196 | \$ 6.120 |
| 12/1/2028 | \$ 6.24 | \$ 0.202 | \$ 6.438 |
| 1/1/2029 | \$ 6.22 | \$ 0.199 | \$ 6.415 |
| 2/1/2029 | \$ 6.06 | \$ 0.197 | \$ 6.257 |
| 3/1/2029 | \$ 5.91 | \$ 0.194 | \$ 6.099 |
| 4/1/2029 | \$ 5.80 | \$ 0.257 | \$ 6.054 |
| 5/1/2029 | \$ 5.69 | \$ 0.255 | \$ 5.945 |
| 6/1/2029 | \$ 5.58 | \$ 0.253 | \$ 5.837 |

| | | | |
|-----------|---------|----------|----------|
| 7/1/2029 | \$ 5.86 | \$ 0.258 | \$ 6.122 |
| 8/1/2029 | \$ 6.14 | \$ 0.263 | \$ 6.406 |
| 9/1/2029 | \$ 5.84 | \$ 0.258 | \$ 6.102 |
| 10/1/2029 | \$ 5.74 | \$ 0.256 | \$ 5.993 |
| 11/1/2029 | \$ 6.11 | \$ 0.200 | \$ 6.312 |
| 12/1/2029 | \$ 6.43 | \$ 0.206 | \$ 6.640 |
| 1/1/2030 | \$ 6.48 | \$ 0.205 | \$ 6.685 |
| 2/1/2030 | \$ 6.32 | \$ 0.202 | \$ 6.520 |
| 3/1/2030 | \$ 6.16 | \$ 0.199 | \$ 6.356 |
| 4/1/2030 | \$ 6.04 | \$ 0.263 | \$ 6.308 |
| 5/1/2030 | \$ 5.93 | \$ 0.261 | \$ 6.194 |
| 6/1/2030 | \$ 5.82 | \$ 0.259 | \$ 6.081 |
| 7/1/2030 | \$ 6.11 | \$ 0.264 | \$ 6.379 |
| 8/1/2030 | \$ 6.40 | \$ 0.270 | \$ 6.675 |
| 9/1/2030 | \$ 6.09 | \$ 0.264 | \$ 6.358 |
| 10/1/2030 | \$ 5.98 | \$ 0.262 | \$ 6.244 |
| 11/1/2030 | \$ 6.37 | \$ 0.206 | \$ 6.578 |
| 12/1/2030 | \$ 6.71 | \$ 0.212 | \$ 6.919 |
| 1/1/2031 | \$ 6.75 | \$ 0.211 | \$ 6.962 |
| 2/1/2031 | \$ 6.58 | \$ 0.207 | \$ 6.790 |
| 3/1/2031 | \$ 6.41 | \$ 0.204 | \$ 6.619 |
| 4/1/2031 | \$ 6.30 | \$ 0.270 | \$ 6.567 |
| 5/1/2031 | \$ 6.18 | \$ 0.268 | \$ 6.449 |
| 6/1/2031 | \$ 6.07 | \$ 0.265 | \$ 6.331 |
| 7/1/2031 | \$ 6.37 | \$ 0.271 | \$ 6.641 |
| 8/1/2031 | \$ 6.67 | \$ 0.277 | \$ 6.950 |
| 9/1/2031 | \$ 6.35 | \$ 0.271 | \$ 6.619 |
| 10/1/2031 | \$ 6.23 | \$ 0.269 | \$ 6.501 |
| 11/1/2031 | \$ 6.64 | \$ 0.212 | \$ 6.850 |
| 12/1/2031 | \$ 6.99 | \$ 0.218 | \$ 7.206 |
| 1/1/2032 | \$ 7.03 | \$ 0.217 | \$ 7.248 |
| 2/1/2032 | \$ 6.86 | \$ 0.213 | \$ 7.070 |
| 3/1/2032 | \$ 6.68 | \$ 0.210 | \$ 6.891 |
| 4/1/2032 | \$ 6.56 | \$ 0.276 | \$ 6.836 |
| 5/1/2032 | \$ 6.44 | \$ 0.274 | \$ 6.712 |
| 6/1/2032 | \$ 6.32 | \$ 0.272 | \$ 6.590 |
| 7/1/2032 | \$ 6.63 | \$ 0.278 | \$ 6.913 |
| 8/1/2032 | \$ 6.95 | \$ 0.284 | \$ 7.234 |
| 9/1/2032 | \$ 6.61 | \$ 0.278 | \$ 6.890 |
| 10/1/2032 | \$ 6.49 | \$ 0.275 | \$ 6.766 |
| 11/1/2032 | \$ 6.91 | \$ 0.217 | \$ 7.132 |
| 12/1/2032 | \$ 7.28 | \$ 0.224 | \$ 7.502 |
| 1/1/2033 | \$ 7.32 | \$ 0.223 | \$ 7.545 |
| 2/1/2033 | \$ 7.14 | \$ 0.219 | \$ 7.359 |
| 3/1/2033 | \$ 6.96 | \$ 0.216 | \$ 7.173 |
| 4/1/2033 | \$ 6.83 | \$ 0.284 | \$ 7.114 |
| 5/1/2033 | \$ 6.70 | \$ 0.281 | \$ 6.985 |

| | | | |
|-----------|---------|----------|----------|
| 6/1/2033 | \$ 6.58 | \$ 0.279 | \$ 6.858 |
| 7/1/2033 | \$ 6.91 | \$ 0.285 | \$ 7.194 |
| 8/1/2033 | \$ 7.24 | \$ 0.291 | \$ 7.529 |
| 9/1/2033 | \$ 6.89 | \$ 0.285 | \$ 7.170 |
| 10/1/2033 | \$ 6.76 | \$ 0.282 | \$ 7.042 |
| 11/1/2033 | \$ 7.20 | \$ 0.223 | \$ 7.424 |
| 12/1/2033 | \$ 7.58 | \$ 0.231 | \$ 7.810 |
| 1/1/2034 | \$ 7.55 | \$ 0.227 | \$ 7.772 |
| 2/1/2034 | \$ 7.36 | \$ 0.224 | \$ 7.581 |
| 3/1/2034 | \$ 7.17 | \$ 0.220 | \$ 7.389 |
| 4/1/2034 | \$ 7.04 | \$ 0.289 | \$ 7.327 |
| 5/1/2034 | \$ 6.91 | \$ 0.287 | \$ 7.195 |
| 6/1/2034 | \$ 6.78 | \$ 0.285 | \$ 7.064 |
| 7/1/2034 | \$ 7.12 | \$ 0.291 | \$ 7.410 |
| 8/1/2034 | \$ 7.46 | \$ 0.297 | \$ 7.755 |
| 9/1/2034 | \$ 7.10 | \$ 0.290 | \$ 7.386 |
| 10/1/2034 | \$ 6.96 | \$ 0.288 | \$ 7.253 |
| 11/1/2034 | \$ 7.42 | \$ 0.228 | \$ 7.647 |
| 12/1/2034 | \$ 7.81 | \$ 0.236 | \$ 8.045 |

| Date | OIL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|-----------|-------------------------|-----------------------------------|---------------------------------|
| 1/1/2018 | \$ 11.14 | \$ 0.41 | \$ 11.55 |
| 2/1/2018 | \$ 11.22 | \$ 0.41 | \$ 11.63 |
| 3/1/2018 | \$ 11.26 | \$ 0.41 | \$ 11.66 |
| 4/1/2018 | \$ 11.28 | \$ 0.41 | \$ 11.69 |
| 5/1/2018 | \$ 11.32 | \$ 0.41 | \$ 11.73 |
| 6/1/2018 | \$ 11.40 | \$ 0.41 | \$ 11.81 |
| 7/1/2018 | \$ 11.49 | \$ 0.41 | \$ 11.90 |
| 8/1/2018 | \$ 11.59 | \$ 0.41 | \$ 12.00 |
| 9/1/2018 | \$ 11.68 | \$ 0.41 | \$ 12.08 |
| 10/1/2018 | \$ 11.69 | \$ 0.41 | \$ 12.10 |
| 11/1/2018 | \$ 11.32 | \$ 0.41 | \$ 11.73 |
| 12/1/2018 | \$ 11.28 | \$ 0.41 | \$ 11.69 |
| 1/1/2019 | \$ 11.44 | \$ 0.41 | \$ 11.86 |
| 2/1/2019 | \$ 11.53 | \$ 0.41 | \$ 11.94 |
| 3/1/2019 | \$ 11.56 | \$ 0.41 | \$ 11.98 |
| 4/1/2019 | \$ 11.59 | \$ 0.41 | \$ 12.00 |
| 5/1/2019 | \$ 11.63 | \$ 0.41 | \$ 12.04 |
| 6/1/2019 | \$ 11.75 | \$ 0.41 | \$ 12.17 |
| 7/1/2019 | \$ 11.89 | \$ 0.41 | \$ 12.30 |
| 8/1/2019 | \$ 12.02 | \$ 0.41 | \$ 12.43 |
| 9/1/2019 | \$ 12.13 | \$ 0.41 | \$ 12.54 |
| 10/1/2019 | \$ 12.18 | \$ 0.41 | \$ 12.59 |
| 11/1/2019 | \$ 11.81 | \$ 0.41 | \$ 12.23 |
| 12/1/2019 | \$ 11.84 | \$ 0.41 | \$ 12.25 |
| 1/1/2020 | \$ 12.56 | \$ 0.42 | \$ 12.98 |
| 2/1/2020 | \$ 12.73 | \$ 0.42 | \$ 13.15 |
| 3/1/2020 | \$ 12.87 | \$ 0.42 | \$ 13.29 |
| 4/1/2020 | \$ 13.00 | \$ 0.42 | \$ 13.41 |
| 5/1/2020 | \$ 13.13 | \$ 0.42 | \$ 13.55 |
| 6/1/2020 | \$ 13.28 | \$ 0.42 | \$ 13.70 |
| 7/1/2020 | \$ 13.43 | \$ 0.42 | \$ 13.85 |
| 8/1/2020 | \$ 13.58 | \$ 0.42 | \$ 14.00 |
| 9/1/2020 | \$ 13.72 | \$ 0.42 | \$ 14.14 |
| 10/1/2020 | \$ 13.82 | \$ 0.42 | \$ 14.24 |
| 11/1/2020 | \$ 13.74 | \$ 0.42 | \$ 14.15 |
| 12/1/2020 | \$ 13.85 | \$ 0.42 | \$ 14.27 |
| 1/1/2021 | \$ 15.25 | \$ 0.42 | \$ 15.68 |
| 2/1/2021 | \$ 15.45 | \$ 0.42 | \$ 15.87 |
| 3/1/2021 | \$ 15.62 | \$ 0.42 | \$ 16.05 |
| 4/1/2021 | \$ 15.79 | \$ 0.42 | \$ 16.22 |
| 5/1/2021 | \$ 15.96 | \$ 0.42 | \$ 16.39 |
| 6/1/2021 | \$ 16.12 | \$ 0.42 | \$ 16.55 |
| 7/1/2021 | \$ 16.12 | \$ 0.42 | \$ 16.55 |
| 8/1/2021 | \$ 16.12 | \$ 0.42 | \$ 16.55 |

| | | | | | | |
|-----------|----|-------|----|------|----|-------|
| 9/1/2021 | \$ | 16.12 | \$ | 0.42 | \$ | 16.55 |
| 10/1/2021 | \$ | 16.12 | \$ | 0.42 | \$ | 16.55 |
| 11/1/2021 | \$ | 16.12 | \$ | 0.42 | \$ | 16.55 |
| 12/1/2021 | \$ | 16.12 | \$ | 0.42 | \$ | 16.55 |
| 1/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 2/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 3/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 4/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 5/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 6/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 7/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 8/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 9/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 10/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 11/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 12/1/2022 | \$ | 16.56 | \$ | 0.43 | \$ | 16.99 |
| 1/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 2/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 3/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 4/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 5/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 6/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 7/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 8/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 9/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 10/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 11/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 12/1/2023 | \$ | 17.02 | \$ | 0.44 | \$ | 17.46 |
| 1/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 2/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 3/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 4/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 5/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 6/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 7/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 8/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 9/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 10/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 11/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 12/1/2024 | \$ | 17.48 | \$ | 0.44 | \$ | 17.93 |
| 1/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 2/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 3/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 4/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 5/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 6/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 7/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |

| | | | | | | |
|-----------|----|-------|----|------|----|-------|
| 8/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 9/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 10/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 11/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 12/1/2025 | \$ | 18.06 | \$ | 0.45 | \$ | 18.51 |
| 1/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 2/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 3/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 4/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 5/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 6/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 7/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 8/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 9/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 10/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 11/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 12/1/2026 | \$ | 18.37 | \$ | 0.46 | \$ | 18.83 |
| 1/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 2/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 3/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 4/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 5/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 6/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 7/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 8/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 9/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 10/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 11/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 12/1/2027 | \$ | 18.80 | \$ | 0.46 | \$ | 19.27 |
| 1/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 2/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 3/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 4/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 5/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 6/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 7/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 8/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 9/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 10/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 11/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 12/1/2028 | \$ | 19.26 | \$ | 0.47 | \$ | 19.73 |
| 1/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 2/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 3/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 4/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 5/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 6/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |

| | | | | | | |
|-----------|----|-------|----|------|----|-------|
| 7/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 8/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 9/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 10/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 11/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 12/1/2029 | \$ | 19.72 | \$ | 0.48 | \$ | 20.20 |
| 1/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 2/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 3/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 4/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 5/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 6/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 7/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 8/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 9/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 10/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 11/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 12/1/2030 | \$ | 20.30 | \$ | 0.49 | \$ | 20.78 |
| 1/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 2/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 3/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 4/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 5/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 6/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 7/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 8/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 9/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 10/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 11/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 12/1/2031 | \$ | 20.66 | \$ | 0.49 | \$ | 21.16 |
| 1/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 2/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 3/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 4/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 5/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 6/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 7/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 8/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 9/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 10/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 11/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 12/1/2032 | \$ | 21.15 | \$ | 0.50 | \$ | 21.65 |
| 1/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 2/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 3/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 4/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 5/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |

| | | | | | | |
|-----------|----|-------|----|------|----|-------|
| 6/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 7/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 8/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 9/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 10/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 11/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 12/1/2033 | \$ | 21.66 | \$ | 0.51 | \$ | 22.17 |
| 1/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 2/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 3/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 4/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 5/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 6/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 7/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 8/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 9/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 10/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 11/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |
| 12/1/2034 | \$ | 22.17 | \$ | 0.52 | \$ | 22.69 |

| Year | COAL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|------|--------------------------|-----------------------------------|------------------------------|
| 2018 | \$ 0.82 | \$ 1.19 | \$ 2.01 |
| 2019 | \$ 0.86 | \$ 1.22 | \$ 2.07 |
| 2020 | \$ 0.87 | \$ 1.25 | \$ 2.11 |
| 2021 | \$ 0.86 | \$ 1.28 | \$ 2.14 |
| 2022 | \$ 1.01 | \$ 1.31 | \$ 2.32 |
| 2023 | \$ 1.30 | \$ 1.34 | \$ 2.64 |
| 2024 | \$ 1.59 | \$ 1.38 | \$ 2.97 |
| 2025 | \$ 1.86 | \$ 1.41 | \$ 3.27 |
| 2026 | \$ 2.18 | \$ 1.45 | \$ 3.62 |
| 2027 | \$ 2.37 | \$ 1.48 | \$ 3.85 |
| 2028 | \$ 2.38 | \$ 1.52 | \$ 3.90 |
| 2029 | \$ 2.36 | \$ 1.56 | \$ 3.92 |
| 2030 | \$ 2.24 | \$ 1.59 | \$ 3.83 |
| 2031 | \$ 2.29 | \$ 1.63 | \$ 3.92 |
| 2032 | \$ 2.25 | \$ 1.66 | \$ 3.92 |
| 2033 | \$ 2.16 | \$ 1.71 | \$ 3.87 |
| 2034 | \$ 2.19 | \$ 1.74 | \$ 3.93 |

| Year | COAL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|------|--------------------------|-----------------------------------|------------------------------|
| 2018 | \$ 1.72 | \$ 1.24 | \$ 2.95 |
| 2019 | \$ 1.76 | \$ 1.27 | \$ 3.03 |
| 2020 | \$ 1.76 | \$ 1.31 | \$ 3.07 |
| 2021 | \$ 2.00 | \$ 1.34 | \$ 3.34 |
| 2022 | \$ 2.04 | \$ 1.38 | \$ 3.42 |
| 2023 | \$ 2.07 | \$ 1.42 | \$ 3.49 |
| 2024 | \$ 2.10 | \$ 1.46 | \$ 3.56 |
| 2025 | \$ 2.15 | \$ 1.50 | \$ 3.65 |
| 2026 | \$ 2.19 | \$ 1.54 | \$ 3.72 |
| 2027 | \$ 2.23 | \$ 1.58 | \$ 3.81 |
| 2028 | \$ 2.27 | \$ 1.63 | \$ 3.89 |
| 2029 | \$ 2.32 | \$ 1.67 | \$ 3.99 |
| 2030 | \$ 2.36 | \$ 1.72 | \$ 4.08 |
| 2031 | \$ 2.42 | \$ 1.77 | \$ 4.19 |
| 2032 | \$ 2.46 | \$ 1.82 | \$ 4.28 |
| 2033 | \$ 2.54 | \$ 1.87 | \$ 4.41 |
| 2034 | \$ 2.59 | \$ 1.92 | \$ 4.51 |

| Date | Base HH Regular Supply Cost | Basis and Transportation (\$/Mmbtu) | Delivered Price (\$/Mmbtu) |
|-----------|-----------------------------|-------------------------------------|----------------------------|
| 1/1/2018 | \$ 3.39 | \$ 0.13 | \$ 3.52 |
| 2/1/2018 | \$ 3.36 | \$ 0.14 | \$ 3.50 |
| 3/1/2018 | \$ 3.28 | \$ 0.14 | \$ 3.42 |
| 4/1/2018 | \$ 2.85 | \$ 0.12 | \$ 2.96 |
| 5/1/2018 | \$ 2.80 | \$ 0.13 | \$ 2.93 |
| 6/1/2018 | \$ 2.82 | \$ 0.13 | \$ 2.95 |
| 7/1/2018 | \$ 2.84 | \$ 0.13 | \$ 2.97 |
| 8/1/2018 | \$ 2.85 | \$ 0.14 | \$ 2.98 |
| 9/1/2018 | \$ 2.83 | \$ 0.13 | \$ 2.95 |
| 10/1/2018 | \$ 2.84 | \$ 0.12 | \$ 2.96 |
| 11/1/2018 | \$ 2.89 | \$ 0.13 | \$ 3.02 |
| 12/1/2018 | \$ 3.03 | \$ 0.14 | \$ 3.17 |
| 1/1/2019 | \$ 3.14 | \$ 0.13 | \$ 3.27 |
| 2/1/2019 | \$ 3.12 | \$ 0.14 | \$ 3.27 |
| 3/1/2019 | \$ 3.07 | \$ 0.14 | \$ 3.21 |
| 4/1/2019 | \$ 2.69 | \$ 0.13 | \$ 2.82 |
| 5/1/2019 | \$ 2.67 | \$ 0.13 | \$ 2.80 |
| 6/1/2019 | \$ 2.69 | \$ 0.13 | \$ 2.83 |
| 7/1/2019 | \$ 2.72 | \$ 0.15 | \$ 2.87 |
| 8/1/2019 | \$ 2.73 | \$ 0.15 | \$ 2.88 |
| 9/1/2019 | \$ 2.73 | \$ 0.14 | \$ 2.86 |
| 10/1/2019 | \$ 2.76 | \$ 0.14 | \$ 2.89 |
| 11/1/2019 | \$ 2.82 | \$ 0.14 | \$ 2.96 |
| 12/1/2019 | \$ 2.95 | \$ 0.15 | \$ 3.10 |
| 1/1/2020 | \$ 3.07 | \$ 0.15 | \$ 3.22 |
| 2/1/2020 | \$ 3.04 | \$ 0.14 | \$ 3.18 |
| 3/1/2020 | \$ 2.98 | \$ 0.14 | \$ 3.12 |
| 4/1/2020 | \$ 2.67 | \$ 0.13 | \$ 2.80 |
| 5/1/2020 | \$ 2.66 | \$ 0.14 | \$ 2.80 |
| 6/1/2020 | \$ 2.69 | \$ 0.15 | \$ 2.84 |
| 7/1/2020 | \$ 2.73 | \$ 0.15 | \$ 2.87 |
| 8/1/2020 | \$ 2.75 | \$ 0.15 | \$ 2.90 |
| 9/1/2020 | \$ 2.76 | \$ 0.14 | \$ 2.89 |
| 10/1/2020 | \$ 2.79 | \$ 0.14 | \$ 2.92 |
| 11/1/2020 | \$ 2.85 | \$ 0.14 | \$ 2.99 |
| 12/1/2020 | \$ 2.99 | \$ 0.15 | \$ 3.14 |
| 1/1/2021 | \$ 3.11 | \$ 0.15 | \$ 3.26 |
| 2/1/2021 | \$ 3.08 | \$ 0.15 | \$ 3.23 |
| 3/1/2021 | \$ 3.02 | \$ 0.14 | \$ 3.16 |
| 4/1/2021 | \$ 2.69 | \$ 0.15 | \$ 2.84 |
| 5/1/2021 | \$ 2.68 | \$ 0.13 | \$ 2.81 |
| 6/1/2021 | \$ 2.70 | \$ 0.15 | \$ 2.85 |
| 7/1/2021 | \$ 2.73 | \$ 0.16 | \$ 2.89 |
| 8/1/2021 | \$ 2.76 | \$ 0.16 | \$ 2.92 |

| | | | |
|-----------|---------|---------|---------|
| 9/1/2021 | \$ 2.76 | \$ 0.15 | \$ 2.91 |
| 10/1/2021 | \$ 2.79 | \$ 0.14 | \$ 2.93 |
| 11/1/2021 | \$ 2.86 | \$ 0.15 | \$ 3.01 |
| 12/1/2021 | \$ 3.01 | \$ 0.15 | \$ 3.16 |
| 1/1/2022 | \$ 3.13 | \$ 0.15 | \$ 3.29 |
| 2/1/2022 | \$ 3.10 | \$ 0.15 | \$ 3.25 |
| 3/1/2022 | \$ 3.05 | \$ 0.13 | \$ 3.18 |
| 4/1/2022 | \$ 2.72 | \$ 0.13 | \$ 2.85 |
| 5/1/2022 | \$ 2.71 | \$ 0.15 | \$ 2.86 |
| 6/1/2022 | \$ 2.75 | \$ 0.15 | \$ 2.89 |
| 7/1/2022 | \$ 2.79 | \$ 0.16 | \$ 2.94 |
| 8/1/2022 | \$ 2.82 | \$ 0.17 | \$ 2.99 |
| 9/1/2022 | \$ 2.86 | \$ 0.15 | \$ 3.01 |
| 10/1/2022 | \$ 2.91 | \$ 0.14 | \$ 3.04 |
| 11/1/2022 | \$ 3.01 | \$ 0.12 | \$ 3.13 |
| 12/1/2022 | \$ 3.17 | \$ 0.14 | \$ 3.32 |
| 1/1/2023 | \$ 3.31 | \$ 0.15 | \$ 3.46 |
| 2/1/2023 | \$ 3.30 | \$ 0.15 | \$ 3.44 |
| 3/1/2023 | \$ 3.24 | \$ 0.14 | \$ 3.39 |
| 4/1/2023 | \$ 2.91 | \$ 0.15 | \$ 3.06 |
| 5/1/2023 | \$ 2.89 | \$ 0.16 | \$ 3.05 |
| 6/1/2023 | \$ 2.93 | \$ 0.17 | \$ 3.10 |
| 7/1/2023 | \$ 2.97 | \$ 0.17 | \$ 3.14 |
| 8/1/2023 | \$ 3.01 | \$ 0.17 | \$ 3.19 |
| 9/1/2023 | \$ 3.04 | \$ 0.15 | \$ 3.20 |
| 10/1/2023 | \$ 3.09 | \$ 0.14 | \$ 3.23 |
| 11/1/2023 | \$ 3.24 | \$ 0.13 | \$ 3.37 |
| 12/1/2023 | \$ 3.42 | \$ 0.17 | \$ 3.58 |
| 1/1/2024 | \$ 3.53 | \$ 0.15 | \$ 3.68 |
| 2/1/2024 | \$ 3.53 | \$ 0.15 | \$ 3.68 |
| 3/1/2024 | \$ 3.53 | \$ 0.13 | \$ 3.66 |
| 4/1/2024 | \$ 3.25 | \$ 0.14 | \$ 3.40 |
| 5/1/2024 | \$ 3.27 | \$ 0.16 | \$ 3.43 |
| 6/1/2024 | \$ 3.31 | \$ 0.16 | \$ 3.47 |
| 7/1/2024 | \$ 3.37 | \$ 0.19 | \$ 3.55 |
| 8/1/2024 | \$ 3.41 | \$ 0.19 | \$ 3.60 |
| 9/1/2024 | \$ 3.44 | \$ 0.16 | \$ 3.60 |
| 10/1/2024 | \$ 3.49 | \$ 0.15 | \$ 3.63 |
| 11/1/2024 | \$ 3.59 | \$ 0.13 | \$ 3.72 |
| 12/1/2024 | \$ 3.80 | \$ 0.16 | \$ 3.97 |
| 1/1/2025 | \$ 3.90 | \$ 0.13 | \$ 4.02 |
| 2/1/2025 | \$ 3.91 | \$ 0.13 | \$ 4.04 |
| 3/1/2025 | \$ 3.86 | \$ 0.11 | \$ 3.98 |
| 4/1/2025 | \$ 3.55 | \$ 0.11 | \$ 3.66 |
| 5/1/2025 | \$ 3.57 | \$ 0.15 | \$ 3.72 |
| 6/1/2025 | \$ 3.61 | \$ 0.16 | \$ 3.78 |
| 7/1/2025 | \$ 3.66 | \$ 0.17 | \$ 3.83 |

| | | | |
|-----------|---------|---------|---------|
| 8/1/2025 | \$ 3.70 | \$ 0.18 | \$ 3.88 |
| 9/1/2025 | \$ 3.72 | \$ 0.16 | \$ 3.88 |
| 10/1/2025 | \$ 3.76 | \$ 0.12 | \$ 3.88 |
| 11/1/2025 | \$ 3.82 | \$ 0.11 | \$ 3.94 |
| 12/1/2025 | \$ 4.02 | \$ 0.16 | \$ 4.18 |
| 1/1/2026 | \$ 4.09 | \$ 0.14 | \$ 4.22 |
| 2/1/2026 | \$ 4.11 | \$ 0.15 | \$ 4.26 |
| 3/1/2026 | \$ 4.01 | \$ 0.13 | \$ 4.13 |
| 4/1/2026 | \$ 3.77 | \$ 0.13 | \$ 3.90 |
| 5/1/2026 | \$ 3.80 | \$ 0.17 | \$ 3.97 |
| 6/1/2026 | \$ 3.85 | \$ 0.18 | \$ 4.02 |
| 7/1/2026 | \$ 3.91 | \$ 0.18 | \$ 4.09 |
| 8/1/2026 | \$ 3.96 | \$ 0.18 | \$ 4.14 |
| 9/1/2026 | \$ 3.95 | \$ 0.18 | \$ 4.13 |
| 10/1/2026 | \$ 3.99 | \$ 0.14 | \$ 4.12 |
| 11/1/2026 | \$ 4.06 | \$ 0.12 | \$ 4.18 |
| 12/1/2026 | \$ 4.30 | \$ 0.17 | \$ 4.47 |
| 1/1/2027 | \$ 4.35 | \$ 0.16 | \$ 4.51 |
| 2/1/2027 | \$ 4.38 | \$ 0.15 | \$ 4.53 |
| 3/1/2027 | \$ 4.28 | \$ 0.14 | \$ 4.43 |
| 4/1/2027 | \$ 4.07 | \$ 0.15 | \$ 4.22 |
| 5/1/2027 | \$ 4.09 | \$ 0.19 | \$ 4.28 |
| 6/1/2027 | \$ 4.12 | \$ 0.18 | \$ 4.30 |
| 7/1/2027 | \$ 4.18 | \$ 0.18 | \$ 4.36 |
| 8/1/2027 | \$ 4.20 | \$ 0.19 | \$ 4.39 |
| 9/1/2027 | \$ 4.17 | \$ 0.19 | \$ 4.36 |
| 10/1/2027 | \$ 4.20 | \$ 0.16 | \$ 4.36 |
| 11/1/2027 | \$ 4.24 | \$ 0.13 | \$ 4.37 |
| 12/1/2027 | \$ 4.43 | \$ 0.20 | \$ 4.63 |
| 1/1/2028 | \$ 4.46 | \$ 0.19 | \$ 4.65 |
| 2/1/2028 | \$ 4.48 | \$ 0.16 | \$ 4.64 |
| 3/1/2028 | \$ 4.38 | \$ 0.14 | \$ 4.52 |
| 4/1/2028 | \$ 4.22 | \$ 0.14 | \$ 4.36 |
| 5/1/2028 | \$ 4.25 | \$ 0.19 | \$ 4.44 |
| 6/1/2028 | \$ 4.27 | \$ 0.19 | \$ 4.46 |
| 7/1/2028 | \$ 4.35 | \$ 0.20 | \$ 4.55 |
| 8/1/2028 | \$ 4.38 | \$ 0.21 | \$ 4.59 |
| 9/1/2028 | \$ 4.36 | \$ 0.20 | \$ 4.56 |
| 10/1/2028 | \$ 4.39 | \$ 0.16 | \$ 4.55 |
| 11/1/2028 | \$ 4.48 | \$ 0.14 | \$ 4.62 |
| 12/1/2028 | \$ 4.71 | \$ 0.20 | \$ 4.91 |
| 1/1/2029 | \$ 4.74 | \$ 0.20 | \$ 4.94 |
| 2/1/2029 | \$ 4.77 | \$ 0.17 | \$ 4.94 |
| 3/1/2029 | \$ 4.68 | \$ 0.15 | \$ 4.83 |
| 4/1/2029 | \$ 4.47 | \$ 0.18 | \$ 4.65 |
| 5/1/2029 | \$ 4.51 | \$ 0.20 | \$ 4.71 |
| 6/1/2029 | \$ 4.53 | \$ 0.20 | \$ 4.73 |

| | | | |
|-----------|---------|---------|---------|
| 7/1/2029 | \$ 4.62 | \$ 0.21 | \$ 4.83 |
| 8/1/2029 | \$ 4.65 | \$ 0.21 | \$ 4.86 |
| 9/1/2029 | \$ 4.61 | \$ 0.20 | \$ 4.81 |
| 10/1/2029 | \$ 4.63 | \$ 0.17 | \$ 4.80 |
| 11/1/2029 | \$ 4.68 | \$ 0.14 | \$ 4.82 |
| 12/1/2029 | \$ 5.00 | \$ 0.18 | \$ 5.18 |
| 1/1/2030 | \$ 5.03 | \$ 0.17 | \$ 5.20 |
| 2/1/2030 | \$ 5.06 | \$ 0.17 | \$ 5.23 |
| 3/1/2030 | \$ 4.94 | \$ 0.13 | \$ 5.07 |
| 4/1/2030 | \$ 4.74 | \$ 0.16 | \$ 4.90 |
| 5/1/2030 | \$ 4.77 | \$ 0.20 | \$ 4.97 |
| 6/1/2030 | \$ 4.80 | \$ 0.20 | \$ 5.00 |
| 7/1/2030 | \$ 4.92 | \$ 0.20 | \$ 5.12 |
| 8/1/2030 | \$ 4.95 | \$ 0.21 | \$ 5.16 |
| 9/1/2030 | \$ 4.91 | \$ 0.20 | \$ 5.11 |
| 10/1/2030 | \$ 4.93 | \$ 0.17 | \$ 5.10 |
| 11/1/2030 | \$ 4.98 | \$ 0.13 | \$ 5.11 |
| 12/1/2030 | \$ 5.26 | \$ 0.16 | \$ 5.42 |
| 1/1/2031 | \$ 5.29 | \$ 0.16 | \$ 5.45 |
| 2/1/2031 | \$ 5.32 | \$ 0.15 | \$ 5.47 |
| 3/1/2031 | \$ 5.12 | \$ 0.14 | \$ 5.26 |
| 4/1/2031 | \$ 4.86 | \$ 0.15 | \$ 5.01 |
| 5/1/2031 | \$ 4.89 | \$ 0.20 | \$ 5.09 |
| 6/1/2031 | \$ 4.92 | \$ 0.20 | \$ 5.12 |
| 7/1/2031 | \$ 5.09 | \$ 0.21 | \$ 5.30 |
| 8/1/2031 | \$ 5.12 | \$ 0.22 | \$ 5.34 |
| 9/1/2031 | \$ 5.01 | \$ 0.21 | \$ 5.22 |
| 10/1/2031 | \$ 5.01 | \$ 0.18 | \$ 5.19 |
| 11/1/2031 | \$ 5.04 | \$ 0.14 | \$ 5.18 |
| 12/1/2031 | \$ 5.32 | \$ 0.17 | \$ 5.49 |
| 1/1/2032 | \$ 5.34 | \$ 0.18 | \$ 5.52 |
| 2/1/2032 | \$ 5.37 | \$ 0.16 | \$ 5.53 |
| 3/1/2032 | \$ 5.18 | \$ 0.14 | \$ 5.32 |
| 4/1/2032 | \$ 4.98 | \$ 0.17 | \$ 5.15 |
| 5/1/2032 | \$ 5.01 | \$ 0.21 | \$ 5.22 |
| 6/1/2032 | \$ 5.04 | \$ 0.21 | \$ 5.25 |
| 7/1/2032 | \$ 5.28 | \$ 0.21 | \$ 5.49 |
| 8/1/2032 | \$ 5.31 | \$ 0.22 | \$ 5.53 |
| 9/1/2032 | \$ 5.23 | \$ 0.21 | \$ 5.44 |
| 10/1/2032 | \$ 5.23 | \$ 0.18 | \$ 5.41 |
| 11/1/2032 | \$ 5.27 | \$ 0.14 | \$ 5.41 |
| 12/1/2032 | \$ 5.54 | \$ 0.20 | \$ 5.74 |
| 1/1/2033 | \$ 5.57 | \$ 0.21 | \$ 5.78 |
| 2/1/2033 | \$ 5.61 | \$ 0.18 | \$ 5.79 |
| 3/1/2033 | \$ 5.40 | \$ 0.15 | \$ 5.55 |
| 4/1/2033 | \$ 5.25 | \$ 0.19 | \$ 5.44 |
| 5/1/2033 | \$ 5.28 | \$ 0.21 | \$ 5.49 |

| | | | |
|-----------|---------|---------|---------|
| 6/1/2033 | \$ 5.32 | \$ 0.21 | \$ 5.53 |
| 7/1/2033 | \$ 5.60 | \$ 0.25 | \$ 5.85 |
| 8/1/2033 | \$ 5.63 | \$ 0.25 | \$ 5.88 |
| 9/1/2033 | \$ 5.55 | \$ 0.23 | \$ 5.78 |
| 10/1/2033 | \$ 5.56 | \$ 0.20 | \$ 5.76 |
| 11/1/2033 | \$ 5.60 | \$ 0.17 | \$ 5.77 |
| 12/1/2033 | \$ 5.93 | \$ 0.22 | \$ 6.15 |
| 1/1/2034 | \$ 5.97 | \$ 0.21 | \$ 6.18 |
| 2/1/2034 | \$ 6.01 | \$ 0.20 | \$ 6.21 |
| 3/1/2034 | \$ 5.77 | \$ 0.18 | \$ 5.95 |
| 4/1/2034 | \$ 5.55 | \$ 0.21 | \$ 5.76 |
| 5/1/2034 | \$ 5.53 | \$ 0.22 | \$ 5.75 |
| 6/1/2034 | \$ 5.56 | \$ 0.24 | \$ 5.80 |
| 7/1/2034 | \$ 5.76 | \$ 0.24 | \$ 6.00 |
| 8/1/2034 | \$ 5.80 | \$ 0.28 | \$ 6.08 |
| 9/1/2034 | \$ 5.66 | \$ 0.23 | \$ 5.89 |
| 10/1/2034 | \$ 5.67 | \$ 0.22 | \$ 5.89 |
| 11/1/2034 | \$ 5.72 | \$ 0.18 | \$ 5.90 |
| 12/1/2034 | \$ 6.04 | \$ 0.22 | \$ 6.26 |

| Date | Base HH Regular Supply Cost | Basis and Transportation (\$/Mmbtu) | Delivered Price (\$/Mmbtu) |
|-----------|-----------------------------------|---|-------------------------------|
| 1/1/2018 | \$ 3.63 | \$ 0.17 | \$ 3.79 |
| 2/1/2018 | \$ 3.60 | \$ 0.17 | \$ 3.77 |
| 3/1/2018 | \$ 3.54 | \$ 0.16 | \$ 3.69 |
| 4/1/2018 | \$ 3.25 | \$ 0.19 | \$ 3.44 |
| 5/1/2018 | \$ 3.25 | \$ 0.20 | \$ 3.44 |
| 6/1/2018 | \$ 3.29 | \$ 0.21 | \$ 3.50 |
| 7/1/2018 | \$ 3.37 | \$ 0.24 | \$ 3.61 |
| 8/1/2018 | \$ 3.39 | \$ 0.25 | \$ 3.64 |
| 9/1/2018 | \$ 3.34 | \$ 0.21 | \$ 3.55 |
| 10/1/2018 | \$ 3.36 | \$ 0.21 | \$ 3.57 |
| 11/1/2018 | \$ 3.38 | \$ 0.16 | \$ 3.55 |
| 12/1/2018 | \$ 3.55 | \$ 0.17 | \$ 3.71 |
| 1/1/2019 | \$ 3.72 | \$ 0.17 | \$ 3.89 |
| 2/1/2019 | \$ 3.74 | \$ 0.17 | \$ 3.91 |
| 3/1/2019 | \$ 3.71 | \$ 0.16 | \$ 3.87 |
| 4/1/2019 | \$ 3.51 | \$ 0.21 | \$ 3.71 |
| 5/1/2019 | \$ 3.53 | \$ 0.21 | \$ 3.75 |
| 6/1/2019 | \$ 3.58 | \$ 0.23 | \$ 3.80 |
| 7/1/2019 | \$ 3.70 | \$ 0.26 | \$ 3.96 |
| 8/1/2019 | \$ 3.82 | \$ 0.27 | \$ 4.09 |
| 9/1/2019 | \$ 3.78 | \$ 0.23 | \$ 4.01 |
| 10/1/2019 | \$ 3.80 | \$ 0.23 | \$ 4.03 |
| 11/1/2019 | \$ 3.97 | \$ 0.17 | \$ 4.14 |
| 12/1/2019 | \$ 4.22 | \$ 0.17 | \$ 4.39 |
| 1/1/2020 | \$ 4.45 | \$ 0.18 | \$ 4.63 |
| 2/1/2020 | \$ 4.43 | \$ 0.18 | \$ 4.60 |
| 3/1/2020 | \$ 4.37 | \$ 0.17 | \$ 4.54 |
| 4/1/2020 | \$ 4.29 | \$ 0.23 | \$ 4.52 |
| 5/1/2020 | \$ 4.28 | \$ 0.24 | \$ 4.52 |
| 6/1/2020 | \$ 4.27 | \$ 0.25 | \$ 4.52 |
| 7/1/2020 | \$ 4.50 | \$ 0.29 | \$ 4.79 |
| 8/1/2020 | \$ 4.74 | \$ 0.30 | \$ 5.04 |
| 9/1/2020 | \$ 4.59 | \$ 0.26 | \$ 4.85 |
| 10/1/2020 | \$ 4.57 | \$ 0.25 | \$ 4.82 |
| 11/1/2020 | \$ 4.90 | \$ 0.19 | \$ 5.09 |
| 12/1/2020 | \$ 5.22 | \$ 0.19 | \$ 5.41 |
| 1/1/2021 | \$ 5.50 | \$ 0.20 | \$ 5.70 |
| 2/1/2021 | \$ 5.36 | \$ 0.19 | \$ 5.56 |
| 3/1/2021 | \$ 5.22 | \$ 0.19 | \$ 5.41 |
| 4/1/2021 | \$ 5.13 | \$ 0.22 | \$ 5.35 |
| 5/1/2021 | \$ 5.03 | \$ 0.23 | \$ 5.27 |
| 6/1/2021 | \$ 4.94 | \$ 0.24 | \$ 5.18 |
| 7/1/2021 | \$ 5.19 | \$ 0.28 | \$ 5.47 |
| 8/1/2021 | \$ 5.43 | \$ 0.29 | \$ 5.73 |

| | | | |
|-----------|---------|---------|---------|
| 9/1/2021 | \$ 5.17 | \$ 0.25 | \$ 5.42 |
| 10/1/2021 | \$ 5.08 | \$ 0.24 | \$ 5.32 |
| 11/1/2021 | \$ 5.41 | \$ 0.19 | \$ 5.60 |
| 12/1/2021 | \$ 5.69 | \$ 0.20 | \$ 5.89 |
| 1/1/2022 | \$ 6.15 | \$ 0.21 | \$ 6.36 |
| 2/1/2022 | \$ 6.00 | \$ 0.21 | \$ 6.20 |
| 3/1/2022 | \$ 5.84 | \$ 0.20 | \$ 6.04 |
| 4/1/2022 | \$ 5.74 | \$ 0.24 | \$ 5.97 |
| 5/1/2022 | \$ 5.63 | \$ 0.24 | \$ 5.87 |
| 6/1/2022 | \$ 5.52 | \$ 0.25 | \$ 5.78 |
| 7/1/2022 | \$ 5.80 | \$ 0.29 | \$ 6.09 |
| 8/1/2022 | \$ 6.08 | \$ 0.30 | \$ 6.38 |
| 9/1/2022 | \$ 5.78 | \$ 0.26 | \$ 6.04 |
| 10/1/2022 | \$ 5.68 | \$ 0.26 | \$ 5.93 |
| 11/1/2022 | \$ 6.05 | \$ 0.20 | \$ 6.25 |
| 12/1/2022 | \$ 6.36 | \$ 0.21 | \$ 6.57 |
| 1/1/2023 | \$ 6.39 | \$ 0.22 | \$ 6.60 |
| 2/1/2023 | \$ 6.23 | \$ 0.21 | \$ 6.44 |
| 3/1/2023 | \$ 6.07 | \$ 0.20 | \$ 6.27 |
| 4/1/2023 | \$ 5.96 | \$ 0.24 | \$ 6.20 |
| 5/1/2023 | \$ 5.85 | \$ 0.25 | \$ 6.10 |
| 6/1/2023 | \$ 5.74 | \$ 0.26 | \$ 6.00 |
| 7/1/2023 | \$ 6.03 | \$ 0.29 | \$ 6.32 |
| 8/1/2023 | \$ 6.31 | \$ 0.31 | \$ 6.62 |
| 9/1/2023 | \$ 6.01 | \$ 0.27 | \$ 6.27 |
| 10/1/2023 | \$ 5.90 | \$ 0.26 | \$ 6.16 |
| 11/1/2023 | \$ 6.28 | \$ 0.21 | \$ 6.49 |
| 12/1/2023 | \$ 6.61 | \$ 0.21 | \$ 6.83 |
| 1/1/2024 | \$ 6.63 | \$ 0.22 | \$ 6.85 |
| 2/1/2024 | \$ 6.47 | \$ 0.22 | \$ 6.69 |
| 3/1/2024 | \$ 6.30 | \$ 0.21 | \$ 6.51 |
| 4/1/2024 | \$ 6.19 | \$ 0.25 | \$ 6.44 |
| 5/1/2024 | \$ 6.07 | \$ 0.26 | \$ 6.33 |
| 6/1/2024 | \$ 5.96 | \$ 0.26 | \$ 6.22 |
| 7/1/2024 | \$ 6.26 | \$ 0.30 | \$ 6.56 |
| 8/1/2024 | \$ 6.56 | \$ 0.32 | \$ 6.87 |
| 9/1/2024 | \$ 6.24 | \$ 0.27 | \$ 6.51 |
| 10/1/2024 | \$ 6.12 | \$ 0.27 | \$ 6.39 |
| 11/1/2024 | \$ 6.52 | \$ 0.21 | \$ 6.74 |
| 12/1/2024 | \$ 6.87 | \$ 0.22 | \$ 7.09 |
| 1/1/2025 | \$ 6.88 | \$ 0.23 | \$ 7.11 |
| 2/1/2025 | \$ 6.71 | \$ 0.22 | \$ 6.93 |
| 3/1/2025 | \$ 6.54 | \$ 0.21 | \$ 6.75 |
| 4/1/2025 | \$ 6.42 | \$ 0.26 | \$ 6.68 |
| 5/1/2025 | \$ 6.30 | \$ 0.26 | \$ 6.56 |
| 6/1/2025 | \$ 6.18 | \$ 0.27 | \$ 6.45 |
| 7/1/2025 | \$ 6.49 | \$ 0.31 | \$ 6.80 |

| | | | |
|-----------|---------|---------|---------|
| 8/1/2025 | \$ 6.80 | \$ 0.32 | \$ 7.13 |
| 9/1/2025 | \$ 6.47 | \$ 0.28 | \$ 6.75 |
| 10/1/2025 | \$ 6.35 | \$ 0.27 | \$ 6.63 |
| 11/1/2025 | \$ 6.77 | \$ 0.22 | \$ 6.99 |
| 12/1/2025 | \$ 7.12 | \$ 0.23 | \$ 7.35 |
| 1/1/2026 | \$ 7.07 | \$ 0.23 | \$ 7.30 |
| 2/1/2026 | \$ 6.89 | \$ 0.23 | \$ 7.12 |
| 3/1/2026 | \$ 6.72 | \$ 0.22 | \$ 6.94 |
| 4/1/2026 | \$ 6.59 | \$ 0.26 | \$ 6.86 |
| 5/1/2026 | \$ 6.47 | \$ 0.27 | \$ 6.74 |
| 6/1/2026 | \$ 6.35 | \$ 0.28 | \$ 6.63 |
| 7/1/2026 | \$ 6.67 | \$ 0.31 | \$ 6.99 |
| 8/1/2026 | \$ 6.99 | \$ 0.33 | \$ 7.32 |
| 9/1/2026 | \$ 6.65 | \$ 0.28 | \$ 6.93 |
| 10/1/2026 | \$ 6.53 | \$ 0.28 | \$ 6.81 |
| 11/1/2026 | \$ 6.95 | \$ 0.22 | \$ 7.18 |
| 12/1/2026 | \$ 7.32 | \$ 0.23 | \$ 7.55 |
| 1/1/2027 | \$ 7.33 | \$ 0.24 | \$ 7.56 |
| 2/1/2027 | \$ 7.15 | \$ 0.23 | \$ 7.38 |
| 3/1/2027 | \$ 6.96 | \$ 0.22 | \$ 7.19 |
| 4/1/2027 | \$ 6.84 | \$ 0.27 | \$ 7.10 |
| 5/1/2027 | \$ 6.71 | \$ 0.27 | \$ 6.98 |
| 6/1/2027 | \$ 6.58 | \$ 0.28 | \$ 6.87 |
| 7/1/2027 | \$ 6.91 | \$ 0.32 | \$ 7.24 |
| 8/1/2027 | \$ 7.24 | \$ 0.34 | \$ 7.58 |
| 9/1/2027 | \$ 6.89 | \$ 0.29 | \$ 7.18 |
| 10/1/2027 | \$ 6.76 | \$ 0.29 | \$ 7.05 |
| 11/1/2027 | \$ 7.21 | \$ 0.23 | \$ 7.43 |
| 12/1/2027 | \$ 7.58 | \$ 0.24 | \$ 7.82 |
| 1/1/2028 | \$ 7.59 | \$ 0.24 | \$ 7.83 |
| 2/1/2028 | \$ 7.40 | \$ 0.24 | \$ 7.64 |
| 3/1/2028 | \$ 7.21 | \$ 0.23 | \$ 7.44 |
| 4/1/2028 | \$ 7.08 | \$ 0.27 | \$ 7.36 |
| 5/1/2028 | \$ 6.95 | \$ 0.28 | \$ 7.23 |
| 6/1/2028 | \$ 6.82 | \$ 0.29 | \$ 7.11 |
| 7/1/2028 | \$ 7.16 | \$ 0.33 | \$ 7.49 |
| 8/1/2028 | \$ 7.50 | \$ 0.34 | \$ 7.85 |
| 9/1/2028 | \$ 7.14 | \$ 0.30 | \$ 7.44 |
| 10/1/2028 | \$ 7.01 | \$ 0.29 | \$ 7.30 |
| 11/1/2028 | \$ 7.47 | \$ 0.24 | \$ 7.70 |
| 12/1/2028 | \$ 7.86 | \$ 0.24 | \$ 8.10 |
| 1/1/2029 | \$ 7.87 | \$ 0.25 | \$ 8.11 |
| 2/1/2029 | \$ 7.67 | \$ 0.24 | \$ 7.91 |
| 3/1/2029 | \$ 7.47 | \$ 0.23 | \$ 7.71 |
| 4/1/2029 | \$ 7.34 | \$ 0.28 | \$ 7.62 |
| 5/1/2029 | \$ 7.20 | \$ 0.29 | \$ 7.49 |
| 6/1/2029 | \$ 7.07 | \$ 0.29 | \$ 7.36 |

| | | | |
|-----------|---------|---------|---------|
| 7/1/2029 | \$ 7.42 | \$ 0.34 | \$ 7.76 |
| 8/1/2029 | \$ 7.77 | \$ 0.35 | \$ 8.13 |
| 9/1/2029 | \$ 7.40 | \$ 0.30 | \$ 7.70 |
| 10/1/2029 | \$ 7.26 | \$ 0.30 | \$ 7.56 |
| 11/1/2029 | \$ 7.73 | \$ 0.24 | \$ 7.97 |
| 12/1/2029 | \$ 8.14 | \$ 0.25 | \$ 8.39 |
| 1/1/2030 | \$ 8.07 | \$ 0.25 | \$ 8.33 |
| 2/1/2030 | \$ 7.87 | \$ 0.25 | \$ 8.12 |
| 3/1/2030 | \$ 7.67 | \$ 0.24 | \$ 7.91 |
| 4/1/2030 | \$ 7.53 | \$ 0.28 | \$ 7.81 |
| 5/1/2030 | \$ 7.39 | \$ 0.29 | \$ 7.68 |
| 6/1/2030 | \$ 7.25 | \$ 0.30 | \$ 7.55 |
| 7/1/2030 | \$ 7.62 | \$ 0.34 | \$ 7.96 |
| 8/1/2030 | \$ 7.98 | \$ 0.36 | \$ 8.34 |
| 9/1/2030 | \$ 7.59 | \$ 0.31 | \$ 7.90 |
| 10/1/2030 | \$ 7.45 | \$ 0.31 | \$ 7.76 |
| 11/1/2030 | \$ 7.94 | \$ 0.25 | \$ 8.18 |
| 12/1/2030 | \$ 8.36 | \$ 0.25 | \$ 8.61 |
| 1/1/2031 | \$ 8.35 | \$ 0.26 | \$ 8.61 |
| 2/1/2031 | \$ 8.15 | \$ 0.26 | \$ 8.40 |
| 3/1/2031 | \$ 7.94 | \$ 0.24 | \$ 8.18 |
| 4/1/2031 | \$ 7.79 | \$ 0.29 | \$ 8.08 |
| 5/1/2031 | \$ 7.65 | \$ 0.30 | \$ 7.95 |
| 6/1/2031 | \$ 7.51 | \$ 0.31 | \$ 7.81 |
| 7/1/2031 | \$ 7.88 | \$ 0.35 | \$ 8.23 |
| 8/1/2031 | \$ 8.26 | \$ 0.37 | \$ 8.62 |
| 9/1/2031 | \$ 7.86 | \$ 0.32 | \$ 8.17 |
| 10/1/2031 | \$ 7.71 | \$ 0.31 | \$ 8.02 |
| 11/1/2031 | \$ 8.21 | \$ 0.25 | \$ 8.47 |
| 12/1/2031 | \$ 8.65 | \$ 0.26 | \$ 8.90 |
| 1/1/2032 | \$ 8.57 | \$ 0.26 | \$ 8.83 |
| 2/1/2032 | \$ 8.36 | \$ 0.26 | \$ 8.62 |
| 3/1/2032 | \$ 8.14 | \$ 0.25 | \$ 8.39 |
| 4/1/2032 | \$ 7.99 | \$ 0.30 | \$ 8.29 |
| 5/1/2032 | \$ 7.85 | \$ 0.30 | \$ 8.15 |
| 6/1/2032 | \$ 7.70 | \$ 0.31 | \$ 8.01 |
| 7/1/2032 | \$ 8.09 | \$ 0.36 | \$ 8.44 |
| 8/1/2032 | \$ 8.47 | \$ 0.37 | \$ 8.84 |
| 9/1/2032 | \$ 8.06 | \$ 0.32 | \$ 8.38 |
| 10/1/2032 | \$ 7.91 | \$ 0.32 | \$ 8.23 |
| 11/1/2032 | \$ 8.43 | \$ 0.26 | \$ 8.68 |
| 12/1/2032 | \$ 8.87 | \$ 0.26 | \$ 9.13 |
| 1/1/2033 | \$ 8.87 | \$ 0.27 | \$ 9.14 |
| 2/1/2033 | \$ 8.65 | \$ 0.27 | \$ 8.91 |
| 3/1/2033 | \$ 8.42 | \$ 0.25 | \$ 8.68 |
| 4/1/2033 | \$ 8.27 | \$ 0.30 | \$ 8.57 |
| 5/1/2033 | \$ 8.12 | \$ 0.31 | \$ 8.43 |

| | | | |
|-----------|---------|---------|---------|
| 6/1/2033 | \$ 7.97 | \$ 0.32 | \$ 8.29 |
| 7/1/2033 | \$ 8.37 | \$ 0.37 | \$ 8.73 |
| 8/1/2033 | \$ 8.76 | \$ 0.38 | \$ 9.15 |
| 9/1/2033 | \$ 8.34 | \$ 0.33 | \$ 8.67 |
| 10/1/2033 | \$ 8.19 | \$ 0.33 | \$ 8.51 |
| 11/1/2033 | \$ 8.72 | \$ 0.26 | \$ 8.98 |
| 12/1/2033 | \$ 9.18 | \$ 0.27 | \$ 9.45 |
| 1/1/2034 | \$ 9.17 | \$ 0.28 | \$ 9.45 |
| 2/1/2034 | \$ 8.94 | \$ 0.27 | \$ 9.21 |
| 3/1/2034 | \$ 8.71 | \$ 0.26 | \$ 8.97 |
| 4/1/2034 | \$ 8.55 | \$ 0.31 | \$ 8.86 |
| 5/1/2034 | \$ 8.40 | \$ 0.32 | \$ 8.71 |
| 6/1/2034 | \$ 8.24 | \$ 0.33 | \$ 8.57 |
| 7/1/2034 | \$ 8.65 | \$ 0.37 | \$ 9.03 |
| 8/1/2034 | \$ 9.06 | \$ 0.39 | \$ 9.46 |
| 9/1/2034 | \$ 8.62 | \$ 0.34 | \$ 8.96 |
| 10/1/2034 | \$ 8.47 | \$ 0.33 | \$ 8.80 |
| 11/1/2034 | \$ 9.02 | \$ 0.27 | \$ 9.29 |
| 12/1/2034 | \$ 9.49 | \$ 0.28 | \$ 9.77 |

| Date | OIL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|-----------|-------------------------|-----------------------------------|---------------------------------|
| 1/1/2018 | \$ 11.09 | \$ 0.34 | \$ 11.44 |
| 2/1/2018 | \$ 11.17 | \$ 0.34 | \$ 11.52 |
| 3/1/2018 | \$ 11.13 | \$ 0.34 | \$ 11.47 |
| 4/1/2018 | \$ 11.13 | \$ 0.34 | \$ 11.48 |
| 5/1/2018 | \$ 11.10 | \$ 0.34 | \$ 11.44 |
| 6/1/2018 | \$ 11.11 | \$ 0.34 | \$ 11.45 |
| 7/1/2018 | \$ 11.14 | \$ 0.34 | \$ 11.48 |
| 8/1/2018 | \$ 11.18 | \$ 0.34 | \$ 11.52 |
| 9/1/2018 | \$ 11.22 | \$ 0.34 | \$ 11.56 |
| 10/1/2018 | \$ 11.17 | \$ 0.34 | \$ 11.51 |
| 11/1/2018 | \$ 11.11 | \$ 0.34 | \$ 11.46 |
| 12/1/2018 | \$ 11.04 | \$ 0.34 | \$ 11.38 |
| 1/1/2019 | \$ 11.14 | \$ 0.35 | \$ 11.49 |
| 2/1/2019 | \$ 11.22 | \$ 0.35 | \$ 11.57 |
| 3/1/2019 | \$ 11.18 | \$ 0.35 | \$ 11.53 |
| 4/1/2019 | \$ 11.18 | \$ 0.35 | \$ 11.53 |
| 5/1/2019 | \$ 11.15 | \$ 0.35 | \$ 11.50 |
| 6/1/2019 | \$ 11.16 | \$ 0.35 | \$ 11.50 |
| 7/1/2019 | \$ 11.19 | \$ 0.35 | \$ 11.54 |
| 8/1/2019 | \$ 11.23 | \$ 0.35 | \$ 11.57 |
| 9/1/2019 | \$ 11.27 | \$ 0.35 | \$ 11.62 |
| 10/1/2019 | \$ 11.22 | \$ 0.35 | \$ 11.57 |
| 11/1/2019 | \$ 11.17 | \$ 0.35 | \$ 11.51 |
| 12/1/2019 | \$ 11.09 | \$ 0.35 | \$ 11.44 |
| 1/1/2020 | \$ 11.18 | \$ 0.35 | \$ 11.54 |
| 2/1/2020 | \$ 11.27 | \$ 0.35 | \$ 11.62 |
| 3/1/2020 | \$ 11.22 | \$ 0.35 | \$ 11.58 |
| 4/1/2020 | \$ 11.23 | \$ 0.35 | \$ 11.58 |
| 5/1/2020 | \$ 11.20 | \$ 0.35 | \$ 11.55 |
| 6/1/2020 | \$ 11.20 | \$ 0.35 | \$ 11.56 |
| 7/1/2020 | \$ 11.24 | \$ 0.35 | \$ 11.59 |
| 8/1/2020 | \$ 11.29 | \$ 0.35 | \$ 11.64 |
| 9/1/2020 | \$ 11.35 | \$ 0.35 | \$ 11.71 |
| 10/1/2020 | \$ 11.32 | \$ 0.35 | \$ 11.67 |
| 11/1/2020 | \$ 11.28 | \$ 0.35 | \$ 11.63 |
| 12/1/2020 | \$ 11.22 | \$ 0.35 | \$ 11.57 |
| 1/1/2021 | \$ 11.34 | \$ 0.36 | \$ 11.70 |
| 2/1/2021 | \$ 11.44 | \$ 0.36 | \$ 11.80 |
| 3/1/2021 | \$ 11.42 | \$ 0.36 | \$ 11.78 |
| 4/1/2021 | \$ 11.44 | \$ 0.36 | \$ 11.80 |
| 5/1/2021 | \$ 11.43 | \$ 0.36 | \$ 11.79 |
| 6/1/2021 | \$ 11.46 | \$ 0.36 | \$ 11.82 |
| 7/1/2021 | \$ 11.52 | \$ 0.36 | \$ 11.87 |
| 8/1/2021 | \$ 11.57 | \$ 0.36 | \$ 11.93 |

| | | | |
|-----------|----------|---------|----------|
| 9/1/2021 | \$ 11.63 | \$ 0.36 | \$ 11.99 |
| 10/1/2021 | \$ 11.60 | \$ 0.36 | \$ 11.96 |
| 11/1/2021 | \$ 11.55 | \$ 0.36 | \$ 11.91 |
| 12/1/2021 | \$ 11.49 | \$ 0.36 | \$ 11.85 |
| 1/1/2022 | \$ 11.62 | \$ 0.36 | \$ 11.98 |
| 2/1/2022 | \$ 11.73 | \$ 0.36 | \$ 12.09 |
| 3/1/2022 | \$ 11.70 | \$ 0.36 | \$ 12.07 |
| 4/1/2022 | \$ 11.73 | \$ 0.36 | \$ 12.09 |
| 5/1/2022 | \$ 11.72 | \$ 0.36 | \$ 12.08 |
| 6/1/2022 | \$ 11.83 | \$ 0.36 | \$ 12.19 |
| 7/1/2022 | \$ 11.97 | \$ 0.36 | \$ 12.33 |
| 8/1/2022 | \$ 12.11 | \$ 0.36 | \$ 12.47 |
| 9/1/2022 | \$ 12.25 | \$ 0.36 | \$ 12.61 |
| 10/1/2022 | \$ 12.30 | \$ 0.36 | \$ 12.66 |
| 11/1/2022 | \$ 12.34 | \$ 0.36 | \$ 12.71 |
| 12/1/2022 | \$ 12.37 | \$ 0.36 | \$ 12.73 |
| 1/1/2023 | \$ 12.63 | \$ 0.37 | \$ 13.00 |
| 2/1/2023 | \$ 12.81 | \$ 0.37 | \$ 13.18 |
| 3/1/2023 | \$ 12.88 | \$ 0.37 | \$ 13.25 |
| 4/1/2023 | \$ 12.99 | \$ 0.37 | \$ 13.36 |
| 5/1/2023 | \$ 13.07 | \$ 0.37 | \$ 13.44 |
| 6/1/2023 | \$ 13.18 | \$ 0.37 | \$ 13.55 |
| 7/1/2023 | \$ 13.31 | \$ 0.37 | \$ 13.68 |
| 8/1/2023 | \$ 13.44 | \$ 0.37 | \$ 13.81 |
| 9/1/2023 | \$ 13.57 | \$ 0.37 | \$ 13.94 |
| 10/1/2023 | \$ 13.63 | \$ 0.37 | \$ 14.00 |
| 11/1/2023 | \$ 13.69 | \$ 0.37 | \$ 14.06 |
| 12/1/2023 | \$ 13.73 | \$ 0.37 | \$ 14.10 |
| 1/1/2024 | \$ 14.12 | \$ 0.37 | \$ 14.49 |
| 2/1/2024 | \$ 14.28 | \$ 0.37 | \$ 14.66 |
| 3/1/2024 | \$ 14.36 | \$ 0.37 | \$ 14.74 |
| 4/1/2024 | \$ 14.47 | \$ 0.37 | \$ 14.85 |
| 5/1/2024 | \$ 14.56 | \$ 0.37 | \$ 14.93 |
| 6/1/2024 | \$ 14.67 | \$ 0.37 | \$ 15.05 |
| 7/1/2024 | \$ 14.80 | \$ 0.37 | \$ 15.17 |
| 8/1/2024 | \$ 14.92 | \$ 0.37 | \$ 15.30 |
| 9/1/2024 | \$ 15.05 | \$ 0.37 | \$ 15.42 |
| 10/1/2024 | \$ 15.12 | \$ 0.37 | \$ 15.50 |
| 11/1/2024 | \$ 15.19 | \$ 0.37 | \$ 15.56 |
| 12/1/2024 | \$ 15.25 | \$ 0.37 | \$ 15.63 |
| 1/1/2025 | \$ 15.65 | \$ 0.38 | \$ 16.03 |
| 2/1/2025 | \$ 15.81 | \$ 0.38 | \$ 16.19 |
| 3/1/2025 | \$ 15.89 | \$ 0.38 | \$ 16.27 |
| 4/1/2025 | \$ 16.00 | \$ 0.38 | \$ 16.38 |
| 5/1/2025 | \$ 16.09 | \$ 0.38 | \$ 16.47 |
| 6/1/2025 | \$ 16.20 | \$ 0.38 | \$ 16.58 |
| 7/1/2025 | \$ 16.32 | \$ 0.38 | \$ 16.70 |

| | | | |
|-----------|----------|---------|----------|
| 8/1/2025 | \$ 16.43 | \$ 0.38 | \$ 16.81 |
| 9/1/2025 | \$ 16.55 | \$ 0.38 | \$ 16.93 |
| 10/1/2025 | \$ 16.63 | \$ 0.38 | \$ 17.01 |
| 11/1/2025 | \$ 16.71 | \$ 0.38 | \$ 17.09 |
| 12/1/2025 | \$ 16.79 | \$ 0.38 | \$ 17.17 |
| 1/1/2026 | \$ 17.17 | \$ 0.39 | \$ 17.56 |
| 2/1/2026 | \$ 17.30 | \$ 0.39 | \$ 17.69 |
| 3/1/2026 | \$ 17.39 | \$ 0.39 | \$ 17.78 |
| 4/1/2026 | \$ 17.50 | \$ 0.39 | \$ 17.88 |
| 5/1/2026 | \$ 17.59 | \$ 0.39 | \$ 17.98 |
| 6/1/2026 | \$ 17.69 | \$ 0.39 | \$ 18.08 |
| 7/1/2026 | \$ 17.80 | \$ 0.39 | \$ 18.19 |
| 8/1/2026 | \$ 17.91 | \$ 0.39 | \$ 18.29 |
| 9/1/2026 | \$ 18.01 | \$ 0.39 | \$ 18.40 |
| 10/1/2026 | \$ 18.10 | \$ 0.39 | \$ 18.48 |
| 11/1/2026 | \$ 18.19 | \$ 0.39 | \$ 18.57 |
| 12/1/2026 | \$ 18.28 | \$ 0.39 | \$ 18.66 |
| 1/1/2027 | \$ 18.43 | \$ 0.39 | \$ 18.82 |
| 2/1/2027 | \$ 18.84 | \$ 0.39 | \$ 19.23 |
| 3/1/2027 | \$ 18.94 | \$ 0.39 | \$ 19.33 |
| 4/1/2027 | \$ 19.04 | \$ 0.39 | \$ 19.43 |
| 5/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 6/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 7/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 8/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 9/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 10/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 11/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 12/1/2027 | \$ 19.13 | \$ 0.39 | \$ 19.53 |
| 1/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 2/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 3/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 4/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 5/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 6/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 7/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 8/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 9/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 10/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 11/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 12/1/2028 | \$ 19.51 | \$ 0.40 | \$ 19.91 |
| 1/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 2/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 3/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 4/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 5/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 6/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |

| | | | |
|-----------|----------|---------|----------|
| 7/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 8/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 9/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 10/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 11/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 12/1/2029 | \$ 19.89 | \$ 0.40 | \$ 20.29 |
| 1/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 2/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 3/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 4/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 5/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 6/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 7/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 8/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 9/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 10/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 11/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 12/1/2030 | \$ 20.28 | \$ 0.41 | \$ 20.69 |
| 1/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 2/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 3/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 4/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 5/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 6/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 7/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 8/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 9/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 10/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 11/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 12/1/2031 | \$ 20.71 | \$ 0.42 | \$ 21.13 |
| 1/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 2/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 3/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 4/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 5/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 6/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 7/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 8/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 9/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 10/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 11/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 12/1/2032 | \$ 21.13 | \$ 0.42 | \$ 21.55 |
| 1/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 2/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 3/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 4/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 5/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |

| | | | |
|-----------|----------|---------|----------|
| 6/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 7/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 8/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 9/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 10/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 11/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 12/1/2033 | \$ 21.55 | \$ 0.43 | \$ 21.98 |
| 1/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 2/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 3/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 4/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 5/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 6/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 7/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 8/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 9/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 10/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 11/1/2034 | \$ 21.99 | \$ 0.43 | \$ 22.43 |
| 12/1/2034 | \$ 21.99 | \$ 0.44 | \$ 22.43 |

| Date | OIL PRICE (\$/Mmbtu) | TRANSPORTATION COST (\$/Mmbtu) | DELIVERED COST (\$/Mmbtu) |
|-----------|-------------------------|-----------------------------------|---------------------------------|
| 1/1/2018 | \$ 13.50 | \$ 0.42 | \$ 13.92 |
| 2/1/2018 | \$ 13.65 | \$ 0.42 | \$ 14.08 |
| 3/1/2018 | \$ 13.82 | \$ 0.42 | \$ 14.24 |
| 4/1/2018 | \$ 13.84 | \$ 0.42 | \$ 14.26 |
| 5/1/2018 | \$ 13.89 | \$ 0.42 | \$ 14.31 |
| 6/1/2018 | \$ 13.99 | \$ 0.42 | \$ 14.41 |
| 7/1/2018 | \$ 14.10 | \$ 0.42 | \$ 14.52 |
| 8/1/2018 | \$ 14.20 | \$ 0.42 | \$ 14.62 |
| 9/1/2018 | \$ 14.30 | \$ 0.42 | \$ 14.72 |
| 10/1/2018 | \$ 14.32 | \$ 0.42 | \$ 14.74 |
| 11/1/2018 | \$ 14.22 | \$ 0.42 | \$ 14.64 |
| 12/1/2018 | \$ 14.04 | \$ 0.42 | \$ 14.46 |
| 1/1/2019 | \$ 13.74 | \$ 0.43 | \$ 14.17 |
| 2/1/2019 | \$ 13.91 | \$ 0.43 | \$ 14.34 |
| 3/1/2019 | \$ 14.07 | \$ 0.43 | \$ 14.50 |
| 4/1/2019 | \$ 14.09 | \$ 0.43 | \$ 14.52 |
| 5/1/2019 | \$ 14.14 | \$ 0.43 | \$ 14.57 |
| 6/1/2019 | \$ 14.22 | \$ 0.43 | \$ 14.65 |
| 7/1/2019 | \$ 14.30 | \$ 0.43 | \$ 14.73 |
| 8/1/2019 | \$ 14.37 | \$ 0.43 | \$ 14.80 |
| 9/1/2019 | \$ 14.42 | \$ 0.43 | \$ 14.85 |
| 10/1/2019 | \$ 14.43 | \$ 0.43 | \$ 14.86 |
| 11/1/2019 | \$ 14.36 | \$ 0.43 | \$ 14.79 |
| 12/1/2019 | \$ 14.25 | \$ 0.43 | \$ 14.68 |
| 1/1/2020 | \$ 14.91 | \$ 0.44 | \$ 15.35 |
| 2/1/2020 | \$ 14.33 | \$ 0.44 | \$ 14.77 |
| 3/1/2020 | \$ 14.42 | \$ 0.44 | \$ 14.86 |
| 4/1/2020 | \$ 14.45 | \$ 0.44 | \$ 14.89 |
| 5/1/2020 | \$ 14.49 | \$ 0.44 | \$ 14.93 |
| 6/1/2020 | \$ 14.54 | \$ 0.44 | \$ 14.97 |
| 7/1/2020 | \$ 14.58 | \$ 0.44 | \$ 15.01 |
| 8/1/2020 | \$ 14.61 | \$ 0.44 | \$ 15.05 |
| 9/1/2020 | \$ 14.64 | \$ 0.44 | \$ 15.07 |
| 10/1/2020 | \$ 14.64 | \$ 0.44 | \$ 15.08 |
| 11/1/2020 | \$ 14.63 | \$ 0.44 | \$ 15.07 |
| 12/1/2020 | \$ 14.63 | \$ 0.44 | \$ 15.06 |
| 1/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 2/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 3/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 4/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 5/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 6/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 7/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 8/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |

| | | | |
|-----------|----------|---------|----------|
| 9/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 10/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 11/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 12/1/2021 | \$ 15.01 | \$ 0.44 | \$ 15.45 |
| 1/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 2/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 3/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 4/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 5/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 6/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 7/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 8/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 9/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 10/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 11/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 12/1/2022 | \$ 15.41 | \$ 0.45 | \$ 15.86 |
| 1/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 2/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 3/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 4/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 5/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 6/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 7/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 8/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 9/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 10/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 11/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 12/1/2023 | \$ 15.82 | \$ 0.46 | \$ 16.28 |
| 1/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 2/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 3/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 4/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 5/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 6/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 7/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 8/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 9/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 10/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 11/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 12/1/2024 | \$ 16.25 | \$ 0.46 | \$ 16.72 |
| 1/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 2/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 3/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 4/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 5/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 6/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 7/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |

| | | | |
|-----------|----------|---------|----------|
| 8/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 9/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 10/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 11/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 12/1/2025 | \$ 16.69 | \$ 0.47 | \$ 17.16 |
| 1/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 2/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 3/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 4/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 5/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 6/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 7/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 8/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 9/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 10/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 11/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 12/1/2026 | \$ 17.07 | \$ 0.48 | \$ 17.55 |
| 1/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 2/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 3/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 4/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 5/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 6/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 7/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 8/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 9/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 10/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 11/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 12/1/2027 | \$ 17.46 | \$ 0.49 | \$ 17.94 |
| 1/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 2/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 3/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 4/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 5/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 6/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 7/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 8/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 9/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 10/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 11/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 12/1/2028 | \$ 17.86 | \$ 0.49 | \$ 18.35 |
| 1/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 2/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 3/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 4/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 5/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 6/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |

| | | | |
|-----------|----------|---------|----------|
| 7/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 8/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 9/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 10/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 11/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 12/1/2029 | \$ 18.26 | \$ 0.50 | \$ 18.76 |
| 1/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 2/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 3/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 4/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 5/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 6/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 7/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 8/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 9/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 10/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 11/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 12/1/2030 | \$ 18.68 | \$ 0.51 | \$ 19.18 |
| 1/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 2/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 3/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 4/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 5/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 6/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 7/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 8/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 9/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 10/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 11/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 12/1/2031 | \$ 19.10 | \$ 0.52 | \$ 19.61 |
| 1/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 2/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 3/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 4/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 5/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 6/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 7/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 8/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 9/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 10/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 11/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 12/1/2032 | \$ 19.54 | \$ 0.52 | \$ 20.06 |
| 1/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 2/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 3/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 4/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 5/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |

| | | | |
|-----------|----------|---------|----------|
| 6/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 7/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 8/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 9/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 10/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 11/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 12/1/2033 | \$ 19.99 | \$ 0.53 | \$ 20.52 |
| 1/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 2/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 3/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 4/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 5/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 6/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 7/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 8/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 9/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 10/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 11/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |
| 12/1/2034 | \$ 20.44 | \$ 0.54 | \$ 20.98 |

| Nominal \$ | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|------------------|------|------|------|------|------|------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| CO2 Costs \$/Ton | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 14.50 | \$ 14.40 | \$ 14.40 | \$ 14.40 | \$ 14.30 | \$ 14.30 | \$ 14.20 | \$ 14.20 | \$ 14.10 | \$ 14.10 |

Inflation 2.50%

| Real \$ | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|------------------|------|------|------|------|------|------|------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|
| CO2 Costs \$/Ton | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 12.20 | \$ 11.82 | \$ 11.53 | \$ 11.25 | \$ 10.90 | \$ 10.63 | \$ 10.30 | \$ 10.05 | \$ 9.74 | \$ 9.50 |

Duke Energy Florida, LLC
 Capital Structure and Cost Rates Applied to Capital Projects
 Estimated for the Period of : July through December 2017

| | Adjusted Retail \$000's | Ratio | Cost Rate | Weighted Cost |
|------------------------------|-------------------------------|----------------|-----------|---------------|
| Common Equity | \$ 4,711,485 | 44.73% | 10.50% | 4.70% |
| Preferred Stock | - | 0.00% | 0.00% | 0.00% |
| Long Term Debt | 3,931,532 | 37.33% | 5.29% | 1.97% |
| Short Term Debt | 102,875 | 0.98% | 0.21% | 0.00% |
| Customer Deposits - Active | 191,025 | 1.81% | 2.26% | 0.04% |
| Customer Deposits - Inactive | 1,455 | 0.01% | 0.00% | 0.00% |
| Deferred Tax | 1,772,933 | 16.83% | 0.00% | 0.00% |
| Deferred Tax (FAS 109) | (180,391) | -1.71% | 0.00% | 0.00% |
| ITC | 1,968 | 0.02% | 0.00% | 0.00% |
| | <u>10,532,883</u> | <u>100.00%</u> | | <u>6.71%</u> |

Total Debt 2.02%
 Total Equity 4.70%

* May 2017 DEF Surveillance Report capital structure and cost rates.
 * Reference: Docket Nos. 120001-EG, 120002-EI, 120007-EI, PSC Order No. 12-0425-PAA-EU, page 8.
 * Included for Informational purposes only. DEF 2017 Actual/Estimated True-up Filing does not currently include a capital return component.

FPD Regulatory Asset Amortization Table (\$ in millions):

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Months | 7 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 5 |
| Beginning Balance | 105 | 101 | 95 | 88 | 81 | 75 | 68 | 62 | 55 | 49 | 42 | 36 | 29 | 22 | 16 | 9 | 3 |
| Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 |
| Ending Balance | 101 | 95 | 88 | 81 | 75 | 68 | 62 | 55 | 49 | 42 | 36 | 29 | 22 | 16 | 9 | 3 | - |
| Average Balance | 103 | 98 | 91 | 85 | 78 | 72 | 65 | 59 | 52 | 45 | 39 | 32 | 26 | 19 | 13 | 6 | 1 |

FPD Termination - Calculation of Results:

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| a. Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 |
| b. Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 |
| c. Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 42 |
| d. Income Tax * | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| e. Total Cost of FPD Buyout | 12 | 15 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 | 178 |
| f. System Impact ** | 9 | 10 | 10 | 14 | 14 | 17 | 18 | 15 | 18 | 14 | 16 | 14 | 21 | 18 | 14 | 18 | 7 | 247 |
| g. Avoided Energy Payment *** | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) |
| h. Net System Impact from Termination | (10) | (19) | (19) | (16) | (16) | (14) | (14) | (17) | (14) | (19) | (17) | (20) | (13) | (17) | (21) | (17) | (7) | (269) |
| i. Net Customer (Savings) / Cost **** | 3 | (4) | (5) | (2) | (3) | (2) | (2) | (5) | (3) | (8) | (7) | (10) | (5) | (8) | (13) | (10) | (4) | (90) |

Notes:

* Reflects the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%, as presented in DEF's response to Staff's First Data Request Q13.

** Please refer to Page 2 of 3 for the calculation of the System Impact

*** Please refer to Page 3 of 3 for the calculation of the Avoided Energy Payment

**** As provided in DEF's Response to Staff's 1st Data Request - Q13 (Page 2 of 4)

Total System Cost (\$'s in millions)

| Case | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Base (w/ FPD) | 1,884 | 1,980 | 2,108 | 2,275 | 2,490 | 2,573 | 2,484 | 2,760 | 2,778 | 2,863 | 2,964 | 3,067 | 3,198 | 3,308 | 3,438 | 3,546 | 3,699 |
| Buyout (FPD Termination) | 1,893 | 1,990 | 2,118 | 2,289 | 2,504 | 2,590 | 2,502 | 2,775 | 2,796 | 2,877 | 2,980 | 3,081 | 3,219 | 3,326 | 3,453 | 3,564 | 3,705 |
| System Impact | 9 | 10 | 10 | 14 | 14 | 17 | 18 | 15 | 18 | 14 | 16 | 14 | 21 | 18 | 14 | 18 | 7 |

Avoided Energy Payment Calculation:

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| FPD Energy Generation (GWh) | | | | | | | | | | | | | | | | | |
| Base (w/ FPD) | 376 | 379 | 380 | 379 | 379 | 379 | 380 | 379 | 379 | 379 | 380 | 379 | 379 | 378 | 380 | 379 | 144 |
| Buyout (FPD Termination) | 129 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FPD GWh Energy | (246) | (379) | (380) | (379) | (379) | (379) | (380) | (379) | (379) | (379) | (380) | (379) | (379) | (378) | (380) | (379) | (144) |
| Energy Cost \$/Mwh | 75.35 | 76.48 | 77.63 | 78.80 | 79.98 | 81.18 | 82.39 | 83.63 | 84.89 | 86.16 | 87.45 | 88.76 | 90.09 | 91.45 | 92.82 | 94.21 | 95.62 |
| Avoided Energy Payment (\$ millions) | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) |

Duke Energy Florida, LLC
 Capital Structure and Cost Rates Applied to Capital Projects
 Estimated for the Period of : July through December 2017

| | Adjusted | | | |
|------------------------------|-------------------|----------------|-----------|---------------|
| | Retail \$000's | Ratio | Cost Rate | Weighted Cost |
| Common Equity | \$ 4,711,485 | 44.73% | 10.50% | 4.70% |
| Preferred Stock | - | 0.00% | 0.00% | 0.00% |
| Long Term Debt | 3,931,532 | 37.33% | 5.29% | 1.97% |
| Short Term Debt | 102,875 | 0.98% | 0.21% | 0.00% |
| Customer Deposits - Active | 191,025 | 1.81% | 2.26% | 0.04% |
| Customer Deposits - Inactive | 1,455 | 0.01% | 0.00% | 0.00% |
| Deferred Tax | 1,772,933 | 16.83% | 0.00% | 0.00% |
| Deferred Tax (FAS 109) | (180,391) | -1.71% | 0.00% | 0.00% |
| ITC | 1,968 | 0.02% | 0.00% | 0.00% |
| | <u>10,532,883</u> | <u>100.00%</u> | | <u>6.71%</u> |

Total Debt 2.02%
 Total Equity 4.70%

* May 2017 DEF Surveillance Report capital structure and cost rates.
 * Reference: Docket Nos. 120001-EG, 120002-EI, 120007-EI, PSC Order No. 12-0425-PAA-EU, page 8.
 * Included for Informational purposes only. DEF 2017 Actual/Estimated True-up Filing does not currently include a capital return component.

FPD Regulatory Asset Amortization Table (\$ in millions):

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Months | 7 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 5 |
| Beginning Balance | 105 | 101 | 95 | 88 | 81 | 75 | 68 | 62 | 55 | 49 | 42 | 36 | 29 | 22 | 16 | 9 | 3 |
| Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 |
| Ending Balance | 101 | 95 | 88 | 81 | 75 | 68 | 62 | 55 | 49 | 42 | 36 | 29 | 22 | 16 | 9 | 3 | - |
| Average Balance | 103 | 98 | 91 | 85 | 78 | 72 | 65 | 59 | 52 | 45 | 39 | 32 | 26 | 19 | 13 | 6 | 1 |

FPD Termination - Calculation of Results:

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| a. Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 |
| b. Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 |
| c. Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 42 |
| d. Income Tax * | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| e. Total Cost of FPD Buyout | 12 | 15 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 | 178 |
| f. System Impact ** | 10 | 11 | 11 | 15 | 16 | 18 | 20 | 17 | 20 | 15 | 18 | 14 | 22 | 19 | 15 | 21 | 7 | 271 |
| g. Avoided Energy Payment *** | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) |
| h. Net System Impact from Termination | (11) | (21) | (21) | (18) | (18) | (16) | (15) | (18) | (16) | (21) | (19) | (24) | (16) | (20) | (24) | (19) | (8) | (303) |
| i. Net Customer (Savings) / Cost **** | 1 | (6) | (7) | (4) | (5) | (3) | (3) | (7) | (5) | (11) | (9) | (14) | (7) | (12) | (16) | (12) | (5) | (125) |

Notes:

* Reflects the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%, as presented in DEF's response to Staff's First Data Request Q13.

** Please refer to Page 2 of 3 for the calculation of the System Impact

*** Please refer to Page 3 of 3 for the calculation of the Avoided Energy Payment

**** As provided in DEF's Response to Staff's 1st Data Request - Q13 (Page 1 of 4)

Total System Cost (\$'s in millions)

| Case | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Base (w/ FPD) | 1,883 | 1,979 | 2,107 | 2,273 | 2,488 | 2,571 | 2,483 | 2,758 | 2,776 | 2,862 | 2,962 | 3,067 | 3,196 | 3,307 | 3,437 | 3,543 | 3,698 |
| Buyout (FPD Termination) | 1,893 | 1,990 | 2,118 | 2,289 | 2,504 | 2,590 | 2,502 | 2,775 | 2,796 | 2,877 | 2,980 | 3,081 | 3,219 | 3,326 | 3,453 | 3,564 | 3,705 |
| System Impact | 10 | 11 | 11 | 15 | 16 | 18 | 20 | 17 | 20 | 15 | 18 | 14 | 22 | 19 | 15 | 21 | 7 |

Avoided Energy Payment Calculation:

| FPD Energy Generation (GWh) | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Base (w/ FPD) | 418 | 421 | 422 | 421 | 421 | 421 | 422 | 421 | 421 | 421 | 422 | 421 | 421 | 421 | 422 | 421 | 160 |
| Buyout (FPD Termination) | 144 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FPD GWh Energy | (274) | (421) | (422) | (421) | (421) | (421) | (422) | (421) | (421) | (421) | (422) | (421) | (421) | (421) | (422) | (421) | (160) |
| Energy Cost \$/Mwh | 75.35 | 76.48 | 77.63 | 78.80 | 79.98 | 81.18 | 82.39 | 83.63 | 84.89 | 86.16 | 87.45 | 88.76 | 90.09 | 91.45 | 92.82 | 94.21 | 95.62 |
| Avoided Energy Payment (\$ millions) | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) |

Duke Energy Florida, LLC
 Capital Structure and Cost Rates Applied to Capital Projects
 Estimated for the Period of : July through December 2017

| | Adjusted | | | |
|------------------------------|-------------------|----------------|-----------|---------------|
| | Retail \$000's | Ratio | Cost Rate | Weighted Cost |
| Common Equity | \$ 4,711,485 | 44.73% | 10.50% | 4.70% |
| Preferred Stock | - | 0.00% | 0.00% | 0.00% |
| Long Term Debt | 3,931,532 | 37.33% | 5.29% | 1.97% |
| Short Term Debt | 102,875 | 0.98% | 0.21% | 0.00% |
| Customer Deposits - Active | 191,025 | 1.81% | 2.26% | 0.04% |
| Customer Deposits - Inactive | 1,455 | 0.01% | 0.00% | 0.00% |
| Deferred Tax | 1,772,933 | 16.83% | 0.00% | 0.00% |
| Deferred Tax (FAS 109) | (180,391) | -1.71% | 0.00% | 0.00% |
| ITC | 1,968 | 0.02% | 0.00% | 0.00% |
| | <u>10,532,883</u> | <u>100.00%</u> | | <u>6.71%</u> |

Total Debt 2.02%
 Total Equity 4.70%

* May 2017 DEF Surveillance Report capital structure and cost rates.

* Reference: Docket Nos. 120001-EG, 120002-EI, 120007-EI, PSC Order No. 12-0425-PAA-EU, page 8.

* Included for Informational purposes only. DEF 2017 Actual/Estimated True-up Filing does not currently include a capital return component.

FPD Termination - Results of DEF's Economic Evaluation - Low Fuel Sensitivity - Base Case CO2 - Upper Band (421 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 9 | 10 | 10 | 11 | 11 | 13 | 15 | 16 | 16 | 16 | 17 | 12 | 20 | 19 | 14 | 20 | 5 | 234 | 139 |
| G Emissions Costs | - | - | - | - | - | - | - | (4) | (2) | (1) | (2) | (3) | (1) | (2) | (2) | (1) | (1) | (17) | (9) |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (12) | (22) | (23) | (22) | (23) | (22) | (20) | (23) | (21) | (20) | (22) | (29) | (19) | (21) | (27) | (21) | (11) | (357) | (220) |
| J = E + I Net Customer (Savings) / Cost | 3 | (6) | (8) | (7) | (9) | (8) | (7) | (11) | (10) | (10) | (11) | (19) | (10) | (13) | (19) | (14) | (8) | (167) | (91) |

FPD Termination - Results of DEF's Economic Evaluation - Mid Fuel - Base Case CO2 - Upper Band (421 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 10 | 11 | 11 | 15 | 16 | 18 | 20 | 18 | 21 | 17 | 21 | 19 | 25 | 22 | 18 | 22 | 8 | 294 | 174 |
| G Emissions Costs | - | - | - | - | - | - | - | (1) | (1) | (2) | (3) | (5) | (3) | (3) | (3) | (1) | (1) | (23) | (11) |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (11) | (21) | (21) | (18) | (18) | (16) | (15) | (18) | (16) | (21) | (19) | (24) | (16) | (20) | (24) | (19) | (8) | (303) | (187) |
| J = E + I Net Customer (Savings) / Cost | 3 | (5) | (6) | (3) | (4) | (2) | (3) | (6) | (4) | (10) | (9) | (14) | (7) | (12) | (16) | (12) | (5) | (113) | (59) |

FPD Termination - Results of DEF's Economic Evaluation - High Fuel Sensitivity - Base Case CO2 - Upper Band (421 GWh)
 \$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------|------------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 12 | 14 | 15 | 20 | 19 | 22 | 24 | 22 | 26 | 23 | 26 | 21 | 29 | 25 | 24 | 28 | 10 | 357 | 212 |
| G Emissions Costs | - | - | - | - | - | - | - | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (3) | (2) | (1) | (22) | (10) |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (9) | (18) | (18) | (14) | (14) | (12) | (11) | (15) | (12) | (16) | (14) | (19) | (11) | (16) | (19) | (14) | (7) | (238) | (148) |
| J = E + I Net Customer (Savings) / Cost | 5 | (2) | (3) | 1 | (0) | 1 | 2 | (3) | (0) | (5) | (3) | (9) | (2) | (8) | (11) | (7) | (4) | (48) | (20) |

FPD Termination - Results of DEF's Economic Evaluation - Low Fuel Sensitivity - No CO2 Cost - Upper Band (421 GWh)
 \$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 9 | 10 | 10 | 11 | 11 | 13 | 15 | 14 | 16 | 14 | 18 | 12 | 21 | 17 | 14 | 18 | 7 | 231 | 137 |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (12) | (22) | (23) | (22) | (23) | (22) | (20) | (21) | (20) | (22) | (19) | (26) | (17) | (21) | (25) | (21) | (8) | (343) | (213) |
| J = E + I Net Customer (Savings) / Cost | 3 | (6) | (8) | (7) | (9) | (8) | (7) | (9) | (8) | (11) | (9) | (16) | (8) | (13) | (17) | (14) | (5) | (153) | (85) |

n

FPD Termination - Results of DEF's Economic Evaluation - Mid Fuel - No CO2 Cost - Upper Band (421 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 10 | 11 | 11 | 15 | 16 | 18 | 20 | 18 | 22 | 18 | 21 | 17 | 25 | 22 | 18 | 23 | 8 | 295 | 174 |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (11) | (21) | (21) | (18) | (18) | (16) | (15) | (17) | (14) | (18) | (16) | (21) | (13) | (16) | (21) | (16) | (7) | (279) | (175) |
| J = E + I Net Customer (Savings) / Cost | 3 | (5) | (6) | (3) | (4) | (2) | (3) | (5) | (2) | (7) | (6) | (11) | (4) | (8) | (13) | (9) | (4) | (89) | (47) |

FPD Termination - Results of DEF's Economic Evaluation - High Fuel Sensitivity - No CO2 Cost - Upper Band (421 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 12 | 14 | 15 | 20 | 19 | 22 | 24 | 23 | 26 | 23 | 26 | 21 | 29 | 26 | 23 | 28 | 10 | 359 | 212 |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (350) |
| I = F + G + H Net System Impact from Termination | (9) | (18) | (18) | (14) | (14) | (12) | (11) | (13) | (9) | (14) | (11) | (17) | (9) | (13) | (16) | (12) | (5) | (215) | (137) |
| J = E + I Net Customer (Savings) / Cost | 5 | (2) | (3) | 1 | (0) | 1 | 2 | (1) | 2 | (3) | (1) | (7) | 0 | (4) | (9) | (5) | (2) | (25) | (9) |

FPD Termination - Results of DEF's Economic Evaluation - Low Fuel Sensitivity - Base Case CO2 - Lower Band (378 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------|------------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 8 | 9 | 9 | 10 | 10 | 11 | 14 | 14 | 14 | 15 | 15 | 12 | 20 | 19 | 13 | 18 | 5 | 216 | 127 |
| G Emissions Costs | - | - | - | - | - | - | - | (3) | (1) | (0) | (2) | (3) | (1) | (1) | (2) | (1) | (0) | (15) | (8) |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) |
| I = F + G + H Net System Impact from Termination | (10) | (20) | (21) | (19) | (20) | (19) | (18) | (21) | (19) | (18) | (20) | (25) | (16) | (17) | (24) | (19) | (9) | (315) | (195) |
| J = E + I Net Customer (Savings) / Cost | 4 | (4) | (5) | (5) | (6) | (6) | (5) | (9) | (8) | (7) | (10) | (15) | (7) | (9) | (16) | (12) | (6) | (125) | (67) |

FPD Termination - Results of DEF's Economic Evaluation - Mid Fuel - Base Case CO2 - Lower Band (378 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|----|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 | |
| F DEF System Impact without Emissions Costs | 9 | 10 | 10 | 14 | 14 | 17 | 18 | 16 | 19 | 16 | 18 | 18 | 24 | 21 | 17 | 20 | 8 | 268 | 158 | |
| G Emissions Costs | - | - | - | - | - | - | - | (1) | (1) | (2) | (2) | (4) | (3) | (3) | (2) | (1) | (1) | (21) | (10) | |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) | |
| I = F + G + H Net System Impact from Termination | (10) | (19) | (19) | (16) | (16) | (14) | (14) | (17) | (14) | (19) | (17) | (20) | (13) | (17) | (21) | (17) | (7) | (269) | (166) | |
| J = E + I Net Customer (Savings) / Cost | 5 | (3) | (4) | (1) | (2) | (1) | (1) | (4) | (3) | (8) | (7) | (10) | (4) | (8) | (13) | (10) | (4) | (79) | (38) | |

FPD Termination - Results of DEF's Economic Evaluation - High Fuel Sensitivity - Base Case CO2 - Lower Band (378 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|----|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 | |
| F DEF System Impact without Emissions Costs | 11 | 13 | 13 | 18 | 18 | 20 | 21 | 19 | 23 | 21 | 23 | 20 | 27 | 24 | 22 | 25 | 9 | 325 | 192 | |
| G Emissions Costs | - | - | - | - | - | - | - | (1) | (2) | (2) | (2) | (2) | (2) | (2) | (3) | (2) | (1) | (19) | (9) | |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) | |
| I = F + G + H Net System Impact from Termination | (8) | (16) | (16) | (12) | (13) | (11) | (10) | (14) | (10) | (14) | (13) | (16) | (9) | (13) | (16) | (13) | (6) | (210) | (131) | |
| J = E + I Net Customer (Savings) / Cost | 6 | (1) | (1) | 2 | 1 | 2 | 3 | (2) | 1 | (3) | (3) | (6) | 0 | (4) | (8) | (6) | (3) | (20) | (3) | |

FPD Termination - Results of DEF's Economic Evaluation - Low Fuel Sensitivity - No CO2 Cost - Lower Band (378 GWh)
 \$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 8 | 9 | 9 | 10 | 10 | 11 | 14 | 13 | 14 | 12 | 16 | 12 | 21 | 17 | 13 | 16 | 6 | 212 | 125 |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) |
| I = F + G + H Net System Impact from Termination | (10) | (20) | (21) | (19) | (20) | (19) | (18) | (19) | (18) | (20) | (17) | (21) | (13) | (18) | (22) | (20) | (7) | (303) | (189) |
| J = E + I Net Customer (Savings) / Cost | 4 | (4) | (5) | (5) | (6) | (6) | (5) | (7) | (6) | (9) | (7) | (12) | (4) | (9) | (14) | (13) | (5) | (113) | (61) |

FPD Termination - Results of DEF's Economic Evaluation - Mid Fuel - No CO2 Cost - Lower Band (378 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|----|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 | |
| F DEF System Impact without Emissions Costs | 9 | 10 | 10 | 14 | 14 | 17 | 18 | 16 | 20 | 17 | 19 | 17 | 23 | 22 | 17 | 21 | 7 | 269 | 159 | |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) | |
| I = F + G + H Net System Impact from Termination | (10) | (19) | (19) | (16) | (16) | (14) | (14) | (16) | (12) | (16) | (15) | (17) | (11) | (13) | (18) | (15) | (6) | (247) | (156) | |
| J = E + I Net Customer (Savings) / Cost | 5 | (3) | (4) | (1) | (2) | (1) | (1) | (3) | (1) | (5) | (4) | (7) | (2) | (4) | (11) | (8) | (4) | (57) | (28) | |

FPD Termination - Results of DEF's Economic Evaluation - High Fuel Sensitivity - No CO2 Cost - Lower Band (378 GWh)
\$ in millions

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 65 |
| B Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 41 | 31 |
| D Income Tax | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 26 | 19 |
| E = A + B + C + D Total cost of FPD Buyout | 14 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 9 | 8 | 8 | 7 | 3 | 190 | 128 |
| F DEF System Impact without Emissions Costs | 11 | 13 | 13 | 18 | 18 | 20 | 21 | 20 | 24 | 21 | 22 | 20 | 27 | 25 | 21 | 24 | 9 | 326 | 193 |
| G Emissions Costs | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| H Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (314) |
| I = F + G + H Net System Impact from Termination | (8) | (16) | (16) | (12) | (13) | (11) | (10) | (12) | (8) | (12) | (11) | (14) | (7) | (10) | (14) | (11) | (5) | (190) | (122) |
| J = E + I Net Customer (Savings) / Cost | 6 | (1) | (1) | 2 | 1 | 2 | 3 | 0 | 3 | (1) | (1) | (4) | 2 | (1) | (6) | (4) | (2) | 0 | 7 |

FPD Termination - Results of DEF's Economic Evaluation - Upper Band (421 GWh)
 \$ in millions

| | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|--------------------------|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A | Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 64 |
| B | Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C | Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 42 | 31 |
| D | Income Tax * | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 | 10 |
| E = A + B + C + D | Total cost of FPD Buyout | 12 | 15 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 | 178 | 118 |
| F | DEF System Impact | 10 | 11 | 11 | 15 | 16 | 18 | 20 | 17 | 20 | 15 | 18 | 14 | 22 | 19 | 15 | 21 | 7 | 271 | 161 |
| G | Avoided Energy Payment of PPA | (21) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (36) | (37) | (37) | (38) | (39) | (39) | (40) | (15) | (574) | (345) |
| H = F + G | Net System Impact from Termination | (11) | (21) | (21) | (18) | (18) | (16) | (15) | (18) | (16) | (21) | (19) | (24) | (16) | (20) | (24) | (19) | (8) | (303) | (185) |
| I = E + H | Net Customer (Savings) / Cost | 1 | (6) | (7) | (4) | (5) | (3) | (3) | (7) | (5) | (11) | (9) | (14) | (7) | (12) | (16) | (12) | (5) | (125) | (66) |

* Reflects the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%

FPD Termination - Results of DEF's Economic Evaluation - Lower Band (378 GWh)
 \$ in millions

| | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | Nominal Total | Present Value |
|--------------------------|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|---------------|
| A | Regulatory Asset Amortization | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 105 | 64 |
| B | Interest Expense | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 18 | 13 |
| C | Return on Equity | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 42 | 31 |
| D | Income Tax * | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 | 10 |
| E = A + B + C + D | Total cost of FPD Buyout | 12 | 15 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 | 178 | 118 |
| F | DEF System Impact | 9 | 10 | 10 | 14 | 14 | 17 | 18 | 15 | 18 | 14 | 16 | 14 | 21 | 18 | 14 | 18 | 7 | 247 | 146 |
| G | Avoided Energy Payment of PPA | (19) | (29) | (29) | (30) | (30) | (31) | (31) | (32) | (32) | (33) | (33) | (34) | (34) | (35) | (35) | (36) | (14) | (516) | (310) |
| H = F + G | Net System Impact from Termination | (10) | (19) | (19) | (16) | (16) | (14) | (14) | (17) | (14) | (19) | (17) | (20) | (13) | (17) | (21) | (17) | (7) | (269) | (164) |
| I = E + H | Net Customer (Savings) / Cost | 3 | (4) | (5) | (2) | (3) | (2) | (2) | (5) | (3) | (8) | (7) | (10) | (5) | (8) | (13) | (10) | (4) | (90) | (46) |

* Reflects the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%

FPD Termination - Estimated Residential Price Impact - Upper Band (421 GWh) ¹
\$ in millions

| | 2019 ² | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 ³ |
|---|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| A System Fuel & ECRC Savings ⁴ | (34) | (23) | (19) | (19) | (17) | (17) | (18) | (17) | (21) | (20) | (25) | (19) | (22) | (29) | (22) | (10) |
| B FPD Regulatory Asset Revenue Requirement * | 27 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 |
| C = A + B Net Customer (Savings) / Cost | (7) | (8) | (5) | (6) | (5) | (5) | (7) | (6) | (11) | (10) | (16) | (10) | (14) | (21) | (15) | (7) |
| D Jurisdictional Separation Factor ⁵ | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% |
| E = C x D Net Retail Customer (Savings) / Cost | (7) | (8) | (5) | (6) | (5) | (5) | (7) | (6) | (11) | (10) | (16) | (10) | (14) | (21) | (15) | (7) |
| F Retail MWh Sales | 38,654,604 | 39,274,868 | 39,712,535 | 39,978,904 | 40,302,128 | 40,493,672 | 40,984,666 | 41,101,259 | 41,554,797 | 42,255,122 | 42,642,334 | 42,875,978 | 43,680,218 | 43,634,402 | 44,499,336 | 44,775,720 |
| G Estimated Residential Clause 1,000 kWh Impact ⁶ | (0.17) | (0.20) | (0.13) | (0.14) | (0.11) | (0.11) | (0.15) | (0.14) | (0.24) | (0.22) | (0.34) | (0.22) | (0.29) | (0.44) | (0.32) | (0.14) |

* Includes the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%

Notes:

- 1 Price Impact estimates are presented prior to Gross Receipt Tax (GRT). A negative price impact reflects a favorable reduction to DEF's customer price.
- 2 As discussed on page 5 of Witness Menendez's testimony, 2019 will include the savings and revenue requirement components for both 2018, which will be included in the True-Up balance, and 2019. The price estimate above reflects this calculation.
- 3 The FPD Regulatory Asset amortization will terminate in May 2034. The above calculation reflects the five months of savings and revenue requirements, incorporated into the estimated 2034 customer price.
- 4 System Savings based on Fuel and ECRC customer savings
- 5 The Jurisdictional Separation Factor is based on the system average factor in the Fuel Clause and was calculated consistent with the methodology used in DEF's Fuel Filings.
- 6 Impact is estimated using a Residential 1st Tier Fuel price methodology by applying a 92.9% 1st Tier Factor. This factor is ratio between DEF's 2018 1st Tier Residential Fuel Price of 3.838 c/kWh and the Secondary Metering rate of 4.132 c/kWh.

FPD Termination - Estimated Residential Price Impact - Lower Band (378 GWh) ¹
 \$ in millions

| | 2019 ² | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 ³ |
|---|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| A System Fuel & ECRC Savings ⁴ | (31) | (20) | (17) | (17) | (16) | (15) | (17) | (15) | (19) | (19) | (22) | (15) | (19) | (21) | (19) | (8) |
| B FPD Regulatory Asset Revenue Requirement * | 27 | 14 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 3 |
| C = A + B Net Customer (Savings) / Cost | (3) | (6) | (3) | (4) | (3) | (3) | (6) | (5) | (9) | (9) | (13) | (6) | (11) | (14) | (12) | (5) |
| D Jurisdictional Separation Factor ⁵ | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% | 99.5% |
| E = C x D Net Retail Customer (Savings) / Cost | (3) | (6) | (3) | (4) | (3) | (3) | (6) | (5) | (9) | (9) | (13) | (6) | (11) | (14) | (12) | (5) |
| F Retail MWh Sales | 38,654,604 | 39,274,868 | 39,712,535 | 39,978,904 | 40,302,128 | 40,493,672 | 40,984,666 | 41,101,259 | 41,554,797 | 42,255,122 | 42,642,334 | 42,875,978 | 43,680,218 | 43,634,402 | 44,499,336 | 44,775,720 |
| G Estimated Residential Clause 1,000 kWh Impact ⁶ | (0.08) | (0.15) | (0.08) | (0.10) | (0.07) | (0.06) | (0.13) | (0.10) | (0.20) | (0.19) | (0.27) | (0.13) | (0.23) | (0.29) | (0.25) | (0.11) |

* Includes the impact of the reduction in the Federal Corporate Income Tax Rate from 35% to 21%

Notes:

- 1 Price Impact estimates are presented prior to Gross Receipt Tax (GRT). A negative price impact reflects a favorable reduction to DEF's customer price.
- 2 As discussed on page 5 of Witness Menendez's testimony, 2019 will include the savings and revenue requirement components for both 2018, which will be included in the True-Up balance, and 2019. The price estimate above reflects this calculation.
- 3 The FPD Regulatory Asset amortization will terminate in May 2034. The above calculation reflects the five months of savings and revenue requirements, incorporated into the estimated 2034 customer price.
- 4 System Savings based on Fuel and ECRC customer savings
- 5 The Jurisdictional Separation Factor is based on the system average factor in the Fuel Clause and was calculated consistent with the methodology used in DEF's Fuel Filings.
- 6 Impact is estimated using a Residential 1st Tier Fuel price methodology by applying a 92.9% 1st Tier Factor. This factor is ratio between DEF's 2018 1st Tier Residential Fuel Price of 3.838 c/kWh and the Secondary Metering rate of 4.132 c/kWh.