

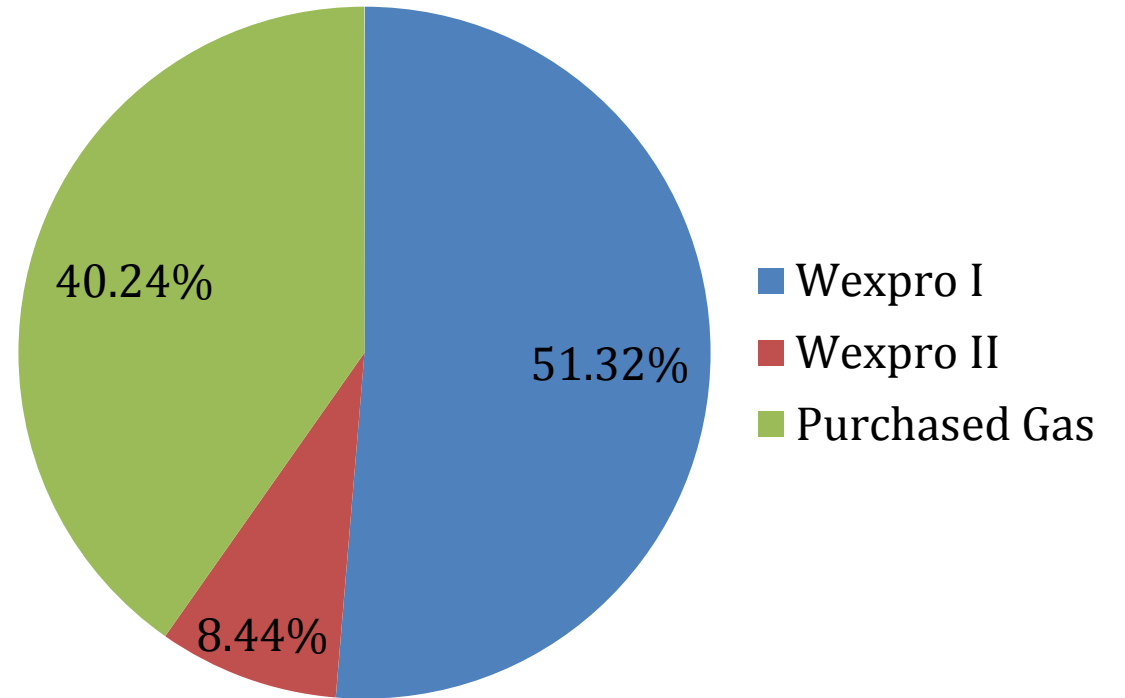
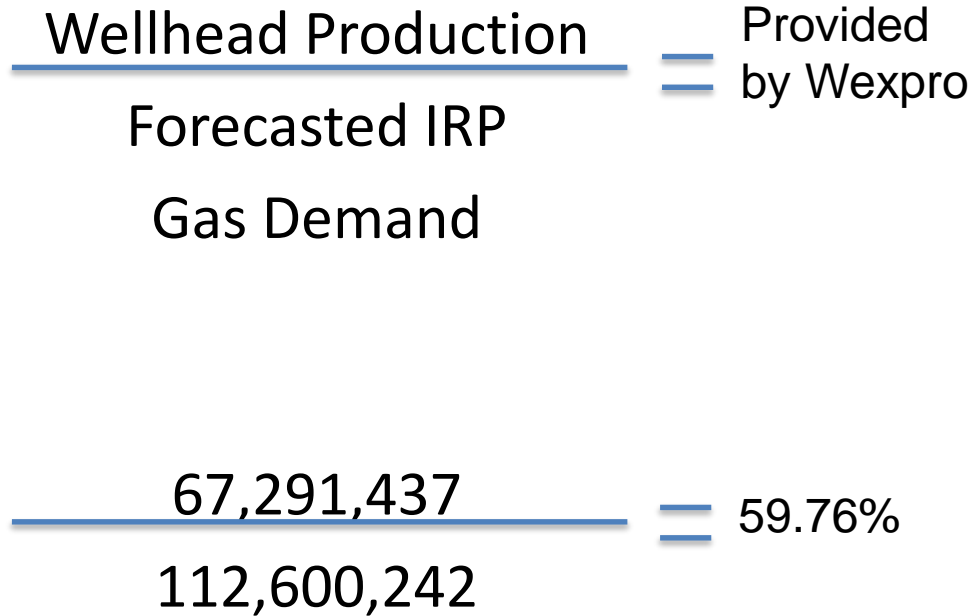
IRP Technical Conference August 2, 2017



2017 IRP Workshops

- February 1, 2017
 - Merger Integration Update
 - Review of the Utah Commission’s 2016 IRP Order
 - Review of the Utah IRP Standards and Guidelines
 - Discussion of the January 6, 2017 Weather Event
 - Results of the 2016 Appliance Survey
 - Gas Quality Issues
- February 28, 2017
 - Gas Supply, Storage, and Transportation Planning
- March 23, 2017
 - Excess Flow Valve Update
 - Contracting Update
 - LNG Storage Facility
- April 20, 2017
 - Merger Update
 - Contracting Update
 - Review of the Company’s 2016 RFP for purchased gas
 - Review of the 2016-2017 Heating Season (IRP vs. Actual)
 - Dominion Energy Wexpro’s Drilling Plan
- June 27, 2017
 - Highlights from each section of 2017-2018 IRP

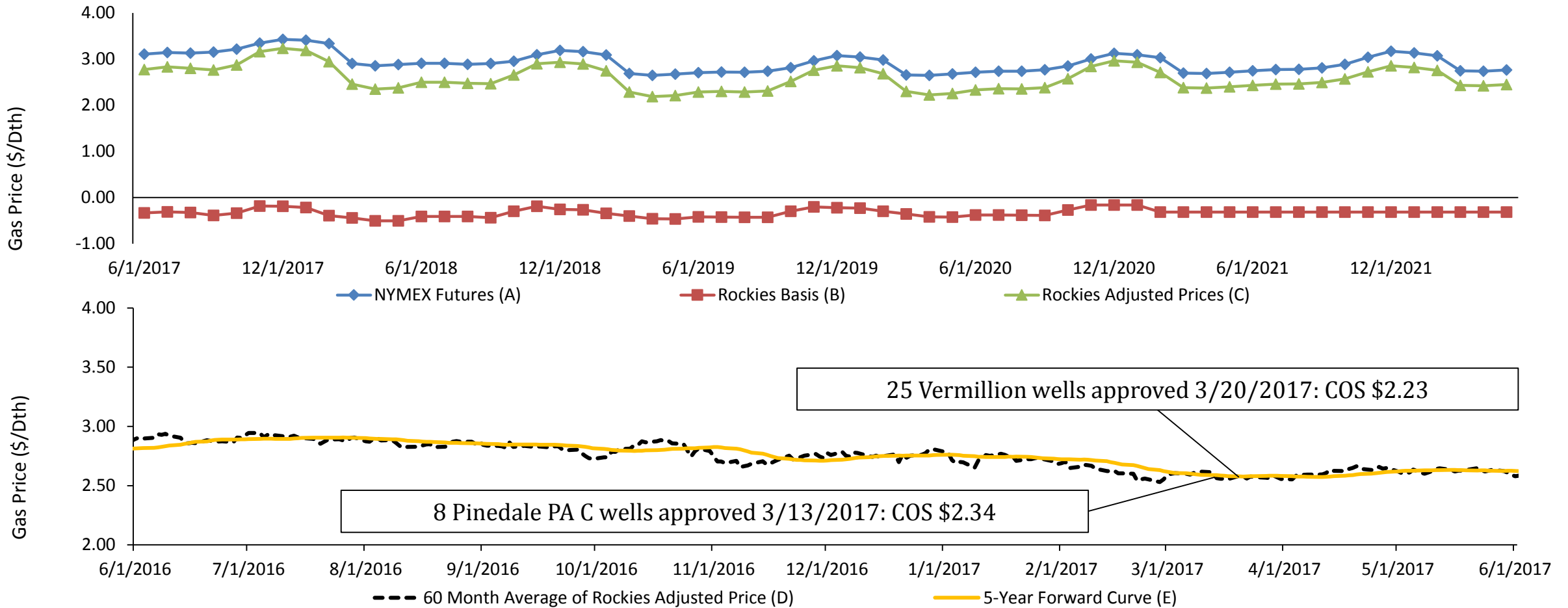
2016 – 2017 IRP Year Production



Calculation of 5-Year Forward Curve

Gas Prices Utilized

- (A) NYMEX Monthly Price (60 Months) (1)
- (B) Northwest Pipeline Rockies Basis (2)
- (C) Rockies-Adjusted Prices (A+B)
- (D) 60 Month Average Rockies-Adjusted Price (C)
- (E) Average of 20 Trailing Days of (D) = 5-Year Forward Curve



Sources:

- (1) www.ino.com
- (2) www.cmegroup.com/trading/energy/natural-gas/northwest-pipeline-rockies-natural-gas-basis-swap-futures-platts-iferc_quotes_settlements_futures.html

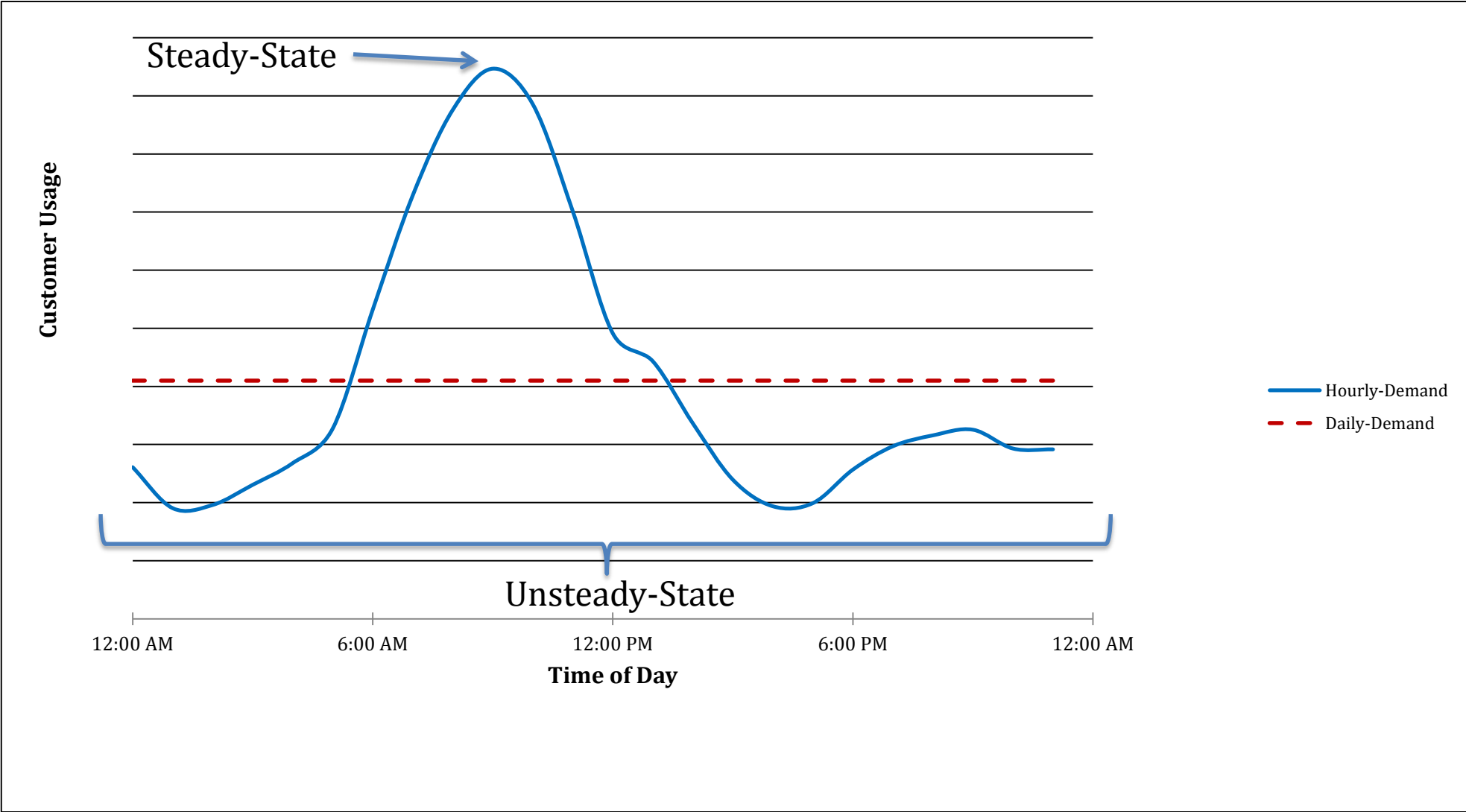


Public Service Commission Questions

- 1. Page 4-3: Please explain the differences between “steady state” and “non-steady state” models and when they are used, including how weather is incorporated into these models.**
 - Steady-state system models
 - Gas network analysis (GNA) models that are used to model flow and pressures in natural gas distribution systems. These models do not account for changes over time (hourly).
 - Accurate and useful for systems that do not provide for the use of linepack.
 - Used for the majority of the Dominion Energy Utah, Wyoming and Idaho distribution systems which consist of smaller pipe diameter (generally less than 16-in) and lower pressures (generally less than 60 psig).
 - Unsteady-state models
 - Similar GNA models that incorporate transient conditions such as supply and demand changes over time (hourly) and linepack.
 - Generally used for larger diameter and higher pressure pipes.

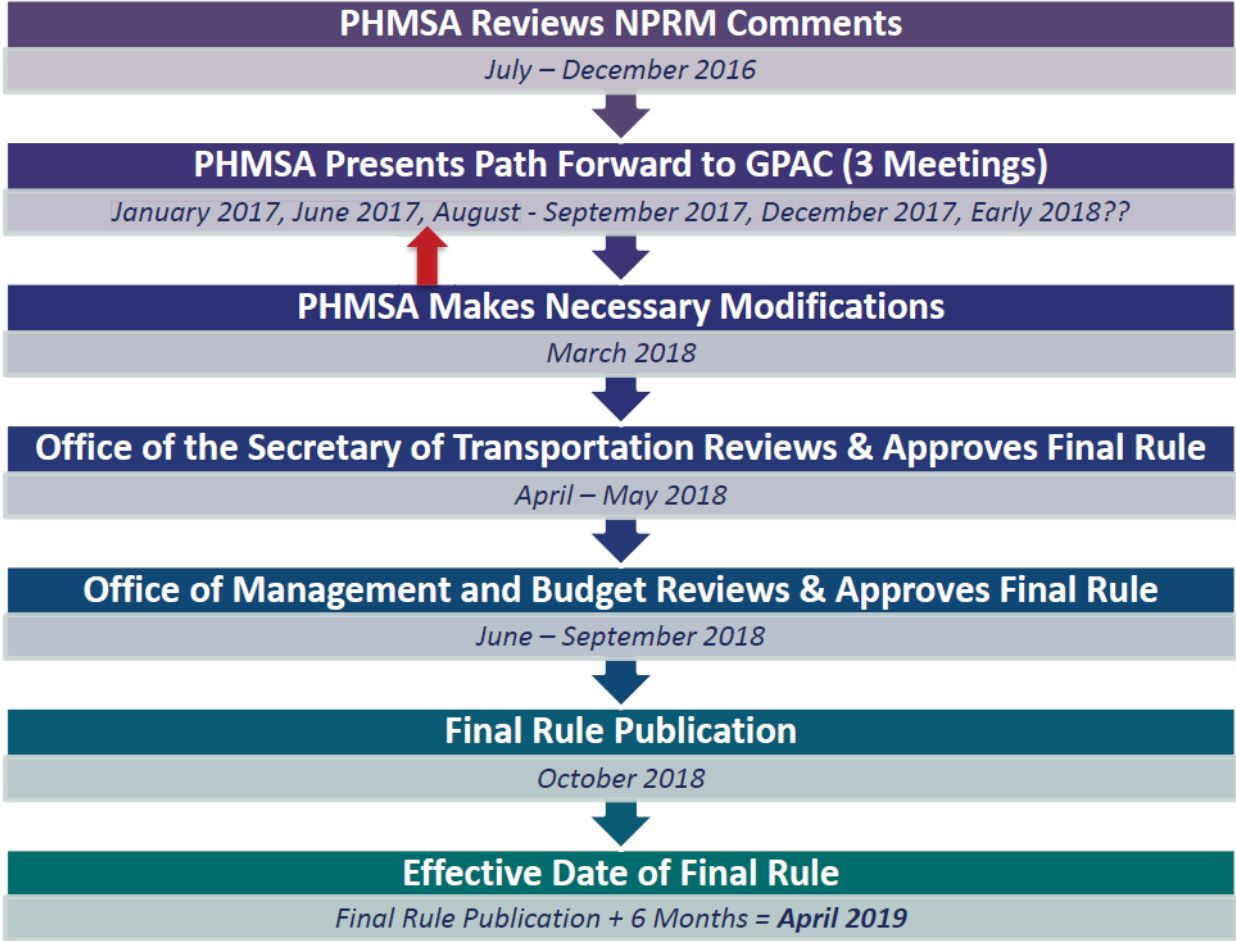
Public Service Commission Questions

Question 1 - Graph



Public Service Commission Questions

2. Page 4.26: This page lists the requirements of the PHMSA “Mega Rule.” Please provide an update on the status of the PHMSA “Mega Rule.”



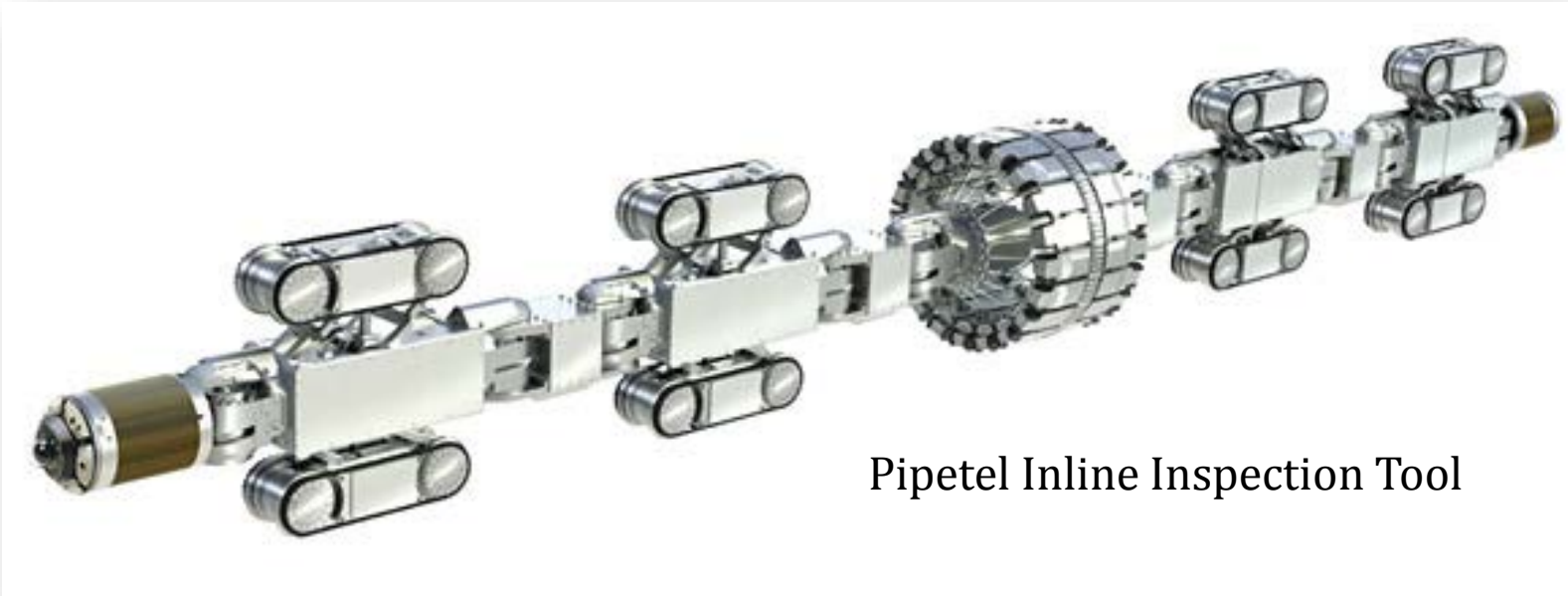
Source: AGA

Public Service Commission Questions

3. Page 4.33: Table 4.4 shows the distribution integrity management budget doubling in 2017, 2018, and 2019 since the filing of the 2016 IRP. Please explain the reasons for this increase. Please explain the “Pipetel” technology and its use/acceptance in the natural gas industry. Please explain the reasons for “additional and accelerated” actions and how they were determined.

- New damage prevention program – Standby monitoring on IHP
- Accelerated action based on increased knowledge of threat on high-pressure distribution system
- Additional and Accelerated Actions = Integrity threat mitigation/ risk reduction, Threats, Risk, and SMEs
- Pipetel: New delivery method same ILI technology

Pipetel



Pipetel Inline Inspection Tool



Public Service Commission Questions

4. Page 6.7: The first paragraph mentions Wexpro's drilling plans "assuming market prices don't deviate dramatically from current expectations for the years 2018-2022." It appears the IRP only presents the gas forecast for the 2017 year, please provide the complete natural gas price forecast used in IRP modeling or identify where it can be found in the IRP.

This forecast will be provided.

Public Service Commission Questions

5. Page 7.5 through 7.7: Please discuss how the installation of an LNG facility will affect Dominion's acquisition of No-Notice Transportation and other storage services.

Dominion Energy will plan to utilize the LNG facility on an as-needed basis to meet peak-hour demand requirements and to offset supply shortfalls. The Company plans to continue its use of No-Notice Transportation and other storage service contracts to manage gas supply on a daily basis.

Public Service Commission Questions

6. Page 8.3, Demand Response: Has Dominion evaluated whether Utah's winter peaking days and temperatures are conducive to a demand response program that makes limited thermostat adjustments during the winter?

- Began study in early 2017.
- The Company plans to present the results of research at either an August or September 2017 meeting of the Advisory Group.

Public Service Commission Questions

7. Page 10.3, last paragraph, last line referencing Exhibits 10.13 through 10.36. These exhibits provide information on the Daily Index Price Distribution – not demand distribution. Please verify if the correct reference should be Exhibits 10.37 through 10.49. Likewise, the first line of page 10-4 references Exhibit 0.50, please verify if the correct reference is Exhibit 10.50.

- The last line of page 10-3 should read: Exhibits 10.37 through 10.49 show the annual and the monthly demand distribution curves for the first year of the base simulation.
- The first full sentence on page 10-4 should read: Exhibit 10.50 shows the annual heating-degree day distribution.

Public Service Commission Questions

8. Exhibit 10.50: This graph represents the probability distribution of the annual heating degree day for the 2017 Plan Year:

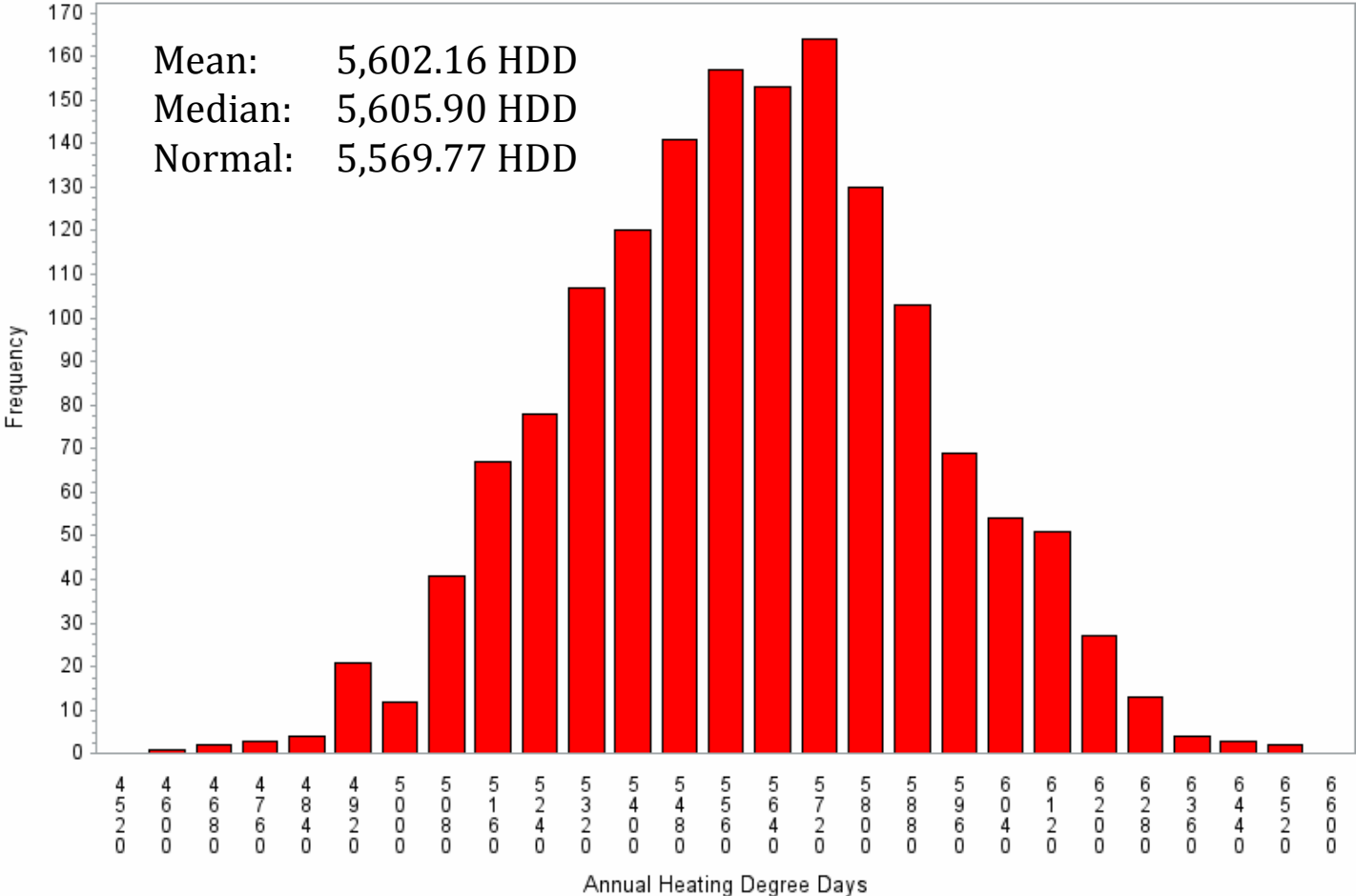
1) The x-axis of this graph is labeled “Annual HDD MMDth.” Please explain what this means in reference to the graph’s title.

2) The distribution mean is 5,602.16, which is higher than the Normal Case distribution of 5,569.77, and higher than the 2016-17 IRP year forecast mean of 5,567.98. Please explain what causes the Company’s annual heating degree day forecast by the Company’s stochastic model to vary from IRP-year to IRP-year.

Public Service Commission Questions

PSC 1.08 Exhibit 1

Annual Heating Degree Day Distribution
 2017 Plan Year
 Scenario 1001 : 1527 Draws



Division of Public Utilities Questions

1. The following questions are in reference to Exhibit 3.9.

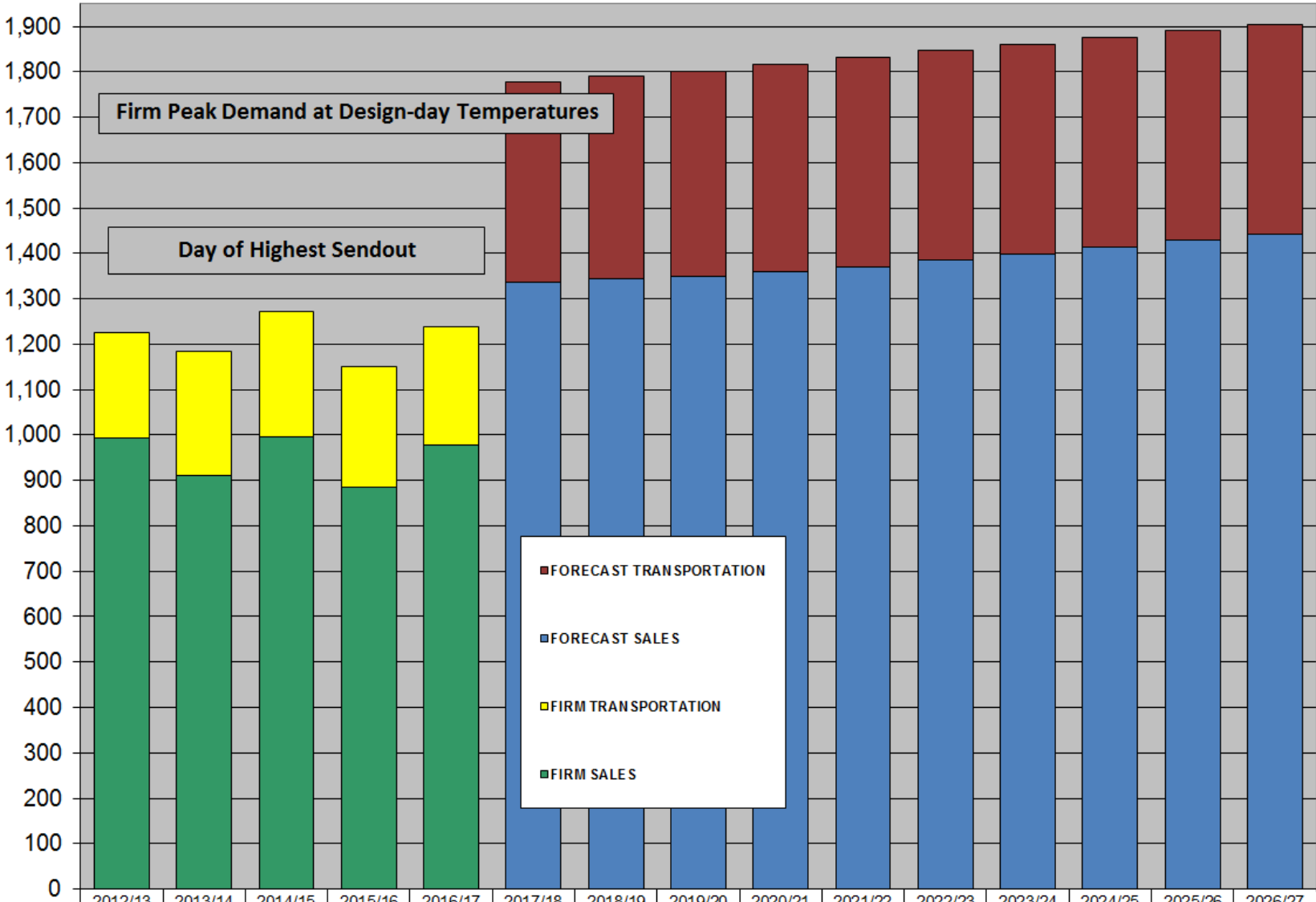
a. The Company has experienced an increase in firm transportation customer volume from 2011-2015. Please explain why the forecast firm transportation requirement for 2016-2026 remains flat with no increase during the 10 year period.

b. Please explain the significant increase in firm transportation from the 2015/16 actual of 266 to the forecast 2016-17 amount of 423.

c. The difference from the 2014/15 highest sendout day of 1,272 and the forecast peak design day of 1,740 represents an increase of 37% above the highest sendout day. Please confirm that the Company has sufficient capacity to receive and distribute an additional 37% volume of natural gas.

Division of Public Utilities Questions

2017 IRP Exhibit 3.09



FORECAST TRANSPORTATION						441	446	452	457	462	462	462	462	462	462
FORECAST SALES						1337	1343	1350	1359	1371	1385	1399	1413	1429	1443
FIRM TRANSPORTATION	232	274	276	266	262										
FIRM SALES	993	911	996	884	977										

Division of Public Utilities Questions

3. When is FL 23 scheduled to be upgraded to support additional pressure requirements in the northern portion of the system? (Page 404)

- FL 23 (from Wellsville to Farr West) is scheduled to be replaced over a two-year period beginning in 2019 and completing in 2020.

Division of Public Utilities Questions

4. Page 4-14 states that the gate stations and feeder line systems have adequate capacity to meet average daily (on peak day) and peak hourly demands and the supply contracts are adequate. Page 8-1 states that projected peak-hour demand across the system will materially exceed the Company's total firm capacity on a peak day for each of the next ten heating seasons. Please explain how both statements can be correct.

- The statement on 4-14 is in reference to capacity on the Company's distribution systems.
- The statement on 8-1 is in reference to firm upstream capacity on a daily basis.
 - The Company has contracted for adequate firm upstream transportation capacity to meet the average daily demand requirements.
 - However, since hourly demands exceed the average daily demand, the capacity required to meet the peak hour demand will exceed the firm upstream capacity contracted by the Company.

Division of Public Utilities Questions

5. Page 4-21 refers to the possible replacement of pre-1971 steel mains and service lines. Does the Company have a regular maintenance program to identify and replace aging main and service lines as part of an ongoing safety and maintenance program?

Yes, the Company monitors leak rates and targets replacements based on leak history, the pipe's condition, and other considerations.

Division of Public Utilities Questions

6. Has the Company completed any study to determine if the existing Aldyl-A pipe is experiencing a higher leak rate than the other pipe currently installed in the distribution system?

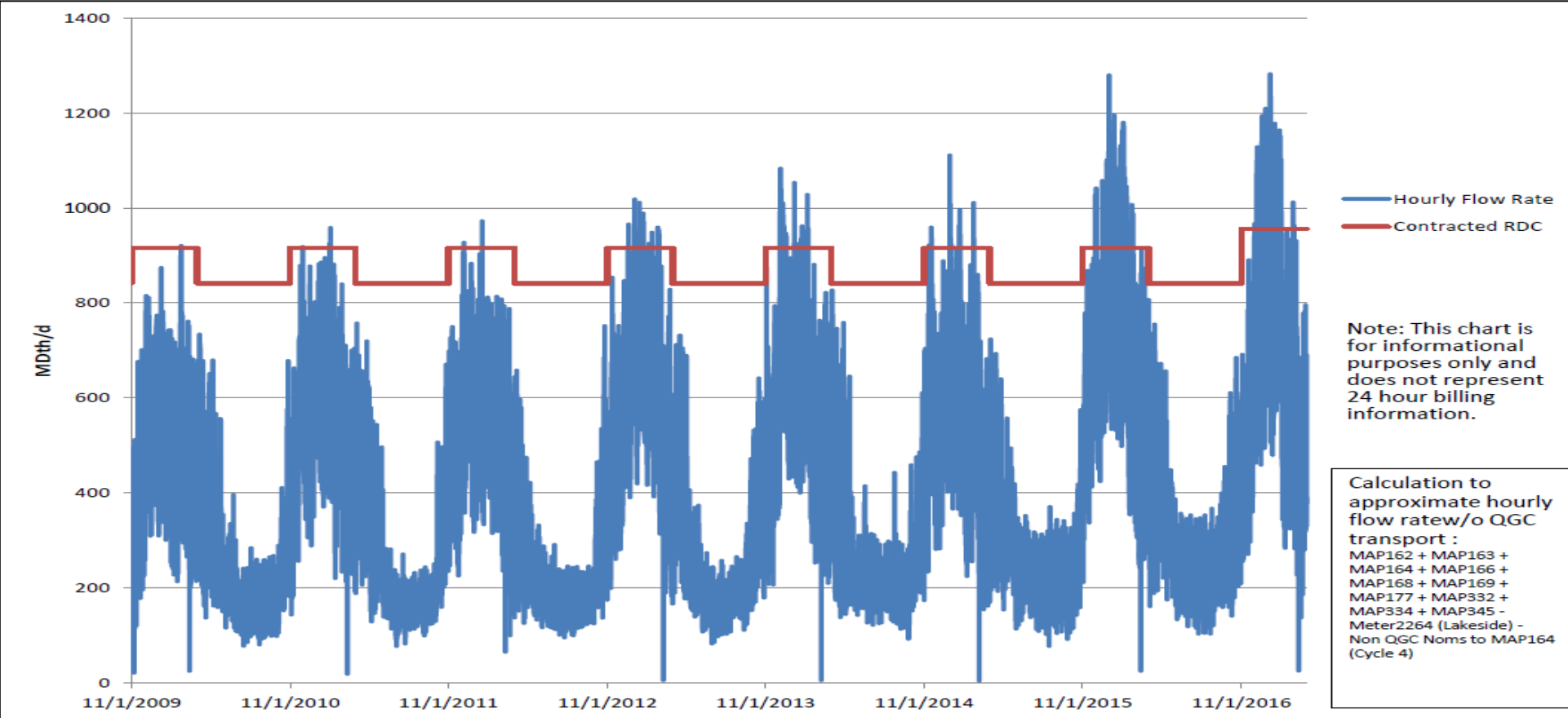
Yes, the Company monitors leak rates by material type and vintage and Aldyl-A pipe has a higher leak rate than newer/current vintage plastic pipe.



Division of Public Utilities Questions

7. Please explain why Figure 7.2 only includes Dominion Energy Questar Pipeline. Is the same information available that would show the flow rate for the entire system compared to the RDC?

IRP Figure 7.2



Division of Public Utilities Questions

8. Please provide an estimate cost for the proposed additional 250,000 Dth hourly Firm Peaking Service contract with Dominion Energy Questar Pipeline. (Page 8-4)

- The estimated cost for the 250,000 Dth of Firm Peaking Service from Dominion Energy Questar Pipeline would be \$1,488,000. This would be for a term of November 15, 2017 through February 14, 2018.

DPU 1.09: LNG Update

FEED Study and Site acquisition

- **The Company, working with its consultant HDR Inc., has commenced work on the LNG Front End Engineering Design (FEED) study.**
- **HDR is substantiating assumptions made during the pre-FEED/site evaluation phase of the project.**
 - Confirming compression type (i.e. electric vs. gas-powered).
 - Confirming assumptions on best liquefaction type (i.e. nitrogen vs. mixed-refrigerant).
 - Evaluating and confirming storage tank requirements.
- **HDR is developing preliminary process and instrumentation diagrams.**
- **Work to date has been independent of the final facility site.**

DPU 1.09: LNG Update

FEED Study and Site acquisition

Site Acquisition:

- **DEU has narrowed site selection to two sites.**
- **DEU is currently negotiating with the land owners of each site and conducting studies at both locations.**

Schedule:

- **The project is moving forward and on schedule.**
 - FEED study to be completed by the end of 2017
 - Engineering, procurement, and construction (EPC) bid process to commence in January 2018.
 - PSC pre-approval process to commence in Spring 2018.

Questions