2012 Natural Gas Request For Proposals Workshop

October 29, 2013

PACIFICORP
Rocky Mountain Power
Pacific Power
PacifiCorp Energy

Agenda

- Objective of the workshop
- Discussion items
- Current evaluation process
- Credit requirements
- Cost of credit calculation
- Price forecast
- Market drivers

Objective

- Consistent with the 2013 Integrated Resource plan action item 5a and the Utah Stipulation, the Company will conduct the following:

Action Item 5a: Convene a workshop for stakeholders by October 31, 2013 to discuss potential changes to the Company's process in evaluating bids for future natural gas requests for proposals, if any, to secure additional long-term natural gas hedging products

Utah Stipulation: Specific discussion items (next slide)

Discussion Items

- The possibility of establishing a standard approach to bid evaluation based on specific terms or product definition such that the bids within specific product definitions or bids for specific terms can compete against each other

- A review of whether a change in the process related to the evaluation of the cost of credit is required and, if so, the type of changes that should be implemented
  - Changes to the methodology
  - Changes to the timing of the cost imputation

- A discussion seeking and understanding the data that would be used to evaluate a costless collar beyond the 48 month of market data

Review of Current Evaluation Process

- Request for proposal contained eight bid types
  - Fixed-Price Physical
  - Fixed-Price Physical without Quarter Two
  - Financial Swap
  - Physical Call Option
  - Financial Call Option
  - Physical Zero-Premium Collar
  - Financial Zero-Premium Collar
  - Physical Cost-Based
- Bids are grouped by tenor, bid category (cost-based, collar, option and fixed-price), and location
- Only bid categories with at least one favorable bid (less than 100% market ratio) are retained through the initial screening

Current Evaluation Process

- Price score
  - RFP Base Model is used to evaluate bid costs against a comparable market alternative for a given term, supply pattern, and point of delivery
  - The "market ratio" establishes the price score for all bid types. For bid types other than collars, it is calculated as follows:
    - Levelized bid costs on a $/MMBtu basis divided by the levelized market value of the bid
    - Bids are ranked by ascending market score, with lowest scores being the most favorable
  - For collars, the "market ratio" is defined as follows
    - Collars are modeled as the combination of a short put and long call
    - The value of the short put is divided by the value of the long call
    - Bids are ranked by ascending market score, with lowest scores being the most favorable

Credit Requirements

- The final shortlisted bidders were either creditworthy or had provided a parental guaranty from a guarantor that was creditworthy

- Each of the final shortlisted bidders had executed the ISDA Master Agreement with a margining agreement in a form acceptable to the Company
  - The margining agreement contractually requires a bidder to post collateral to the Company when the Company has credit exposure to the bidder that exceeds the bidder's margin threshold, with the converse being true as well
  - Margin thresholds are based on current credit ratings and are negotiated prior to contract execution
  - The margin threshold is the maximum level of unsecured credit exposure a party is willing to assume with the other party
  - Credit exposure that exceeds the margin threshold is collateralized with cash or a letter of credit, per the terms of the underlying margin agreement

Credit Exposure

- The Company determined the peak potential credit exposure for each shortlisted bid, using standard statistical analysis

- For the final shortlisted bids, the actual potential credit exposure of the Company to the bidder was limited to the lesser of the calculated peak potential exposure or the amount of the bidder's margin threshold, since any credit exposure above the threshold is secured, per the terms of the underlying agreement

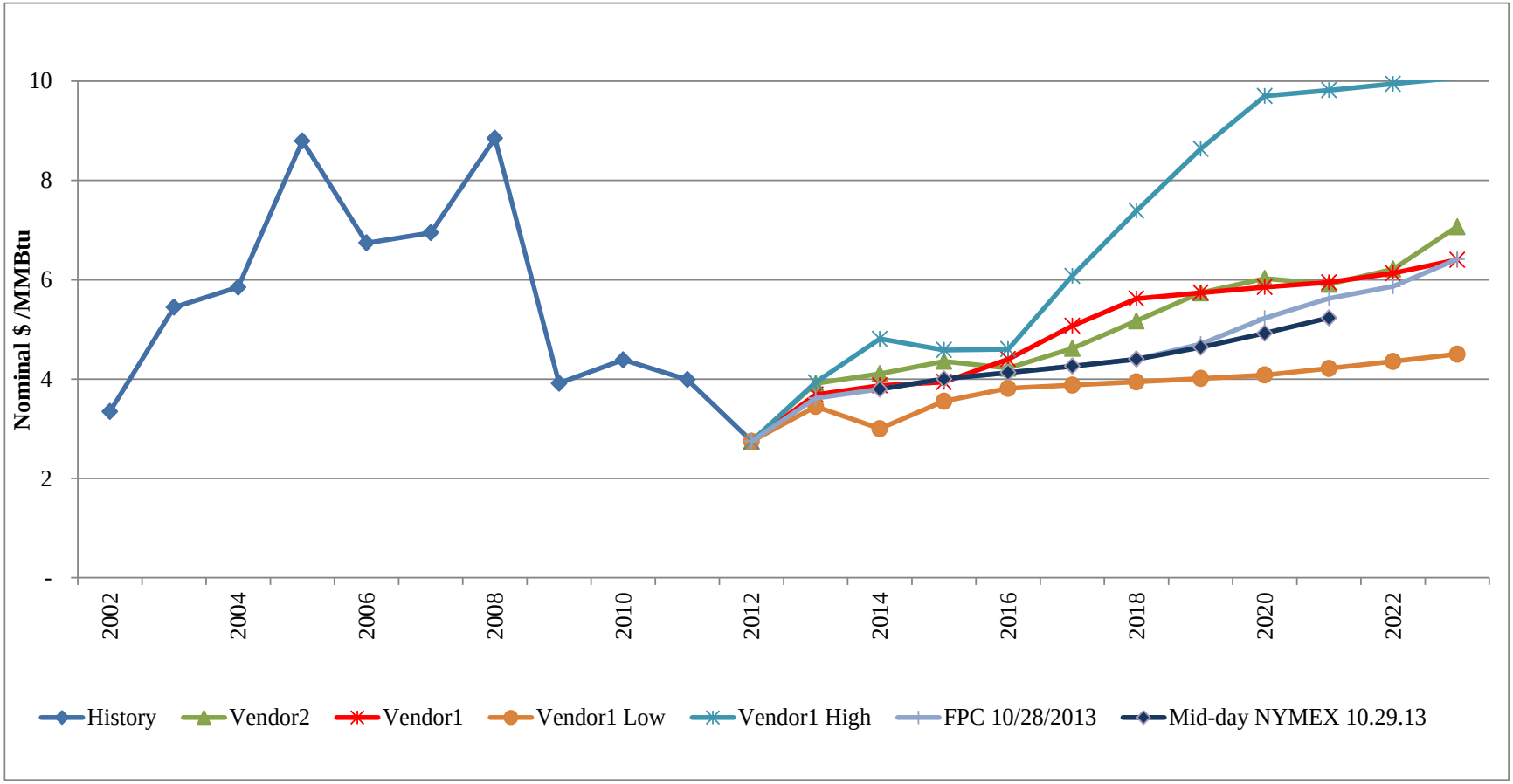
- For each of the final shortlisted bids, the actual potential credit exposure, or lesser value, was limited to the bidder's margin threshold

Cost of Credit Calculation

- A total notional cost of credit was determined for each shortlisted bid using the bidder's credit default swap (CDS) rate, which was multiplied by the bidder's margin threshold and which was in turn multiplied by the term of the transaction

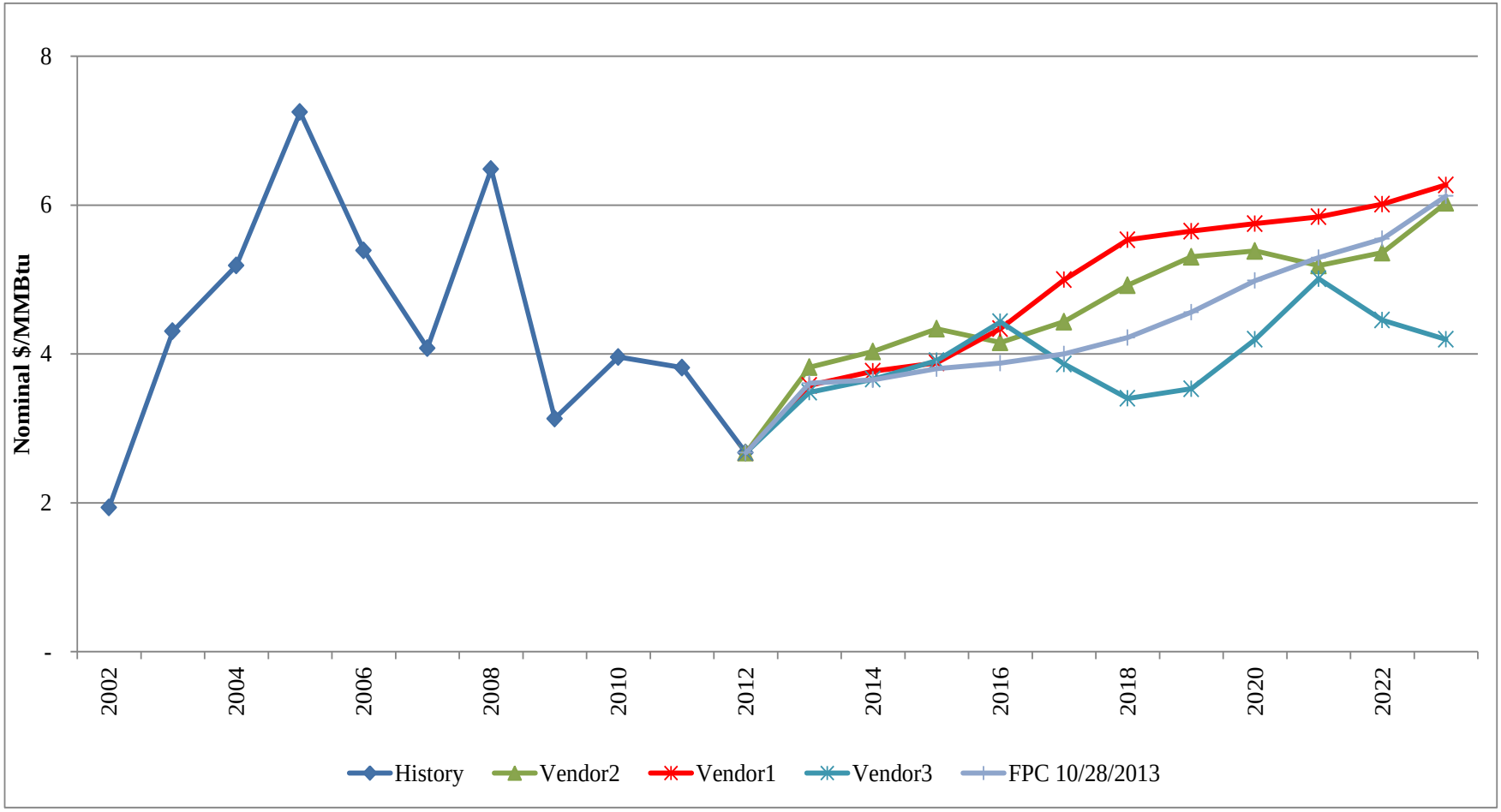
- This total notional cost of credit was then divided by the total volume (in MMBtu) to be delivered over the transaction term in order to determine the notional cost of credit per/MMBtu for each bid
  - The CDS rate represents the cost of credit insurance and was used to estimate the premium charged by the capital markets to insure against credit risk: i.e., the expense to insure against default on a company's debt
  - The CDS rate is based on each bidder's unique risk profile and is independent of any proposed bid
    - The CDS rate was obtained from Bloomberg L.P. and is published in basis points per annum
    - The rate was converted to a monthly rate for the purposes of the cost of credit calculation.

Henry Hub Price Forecasts



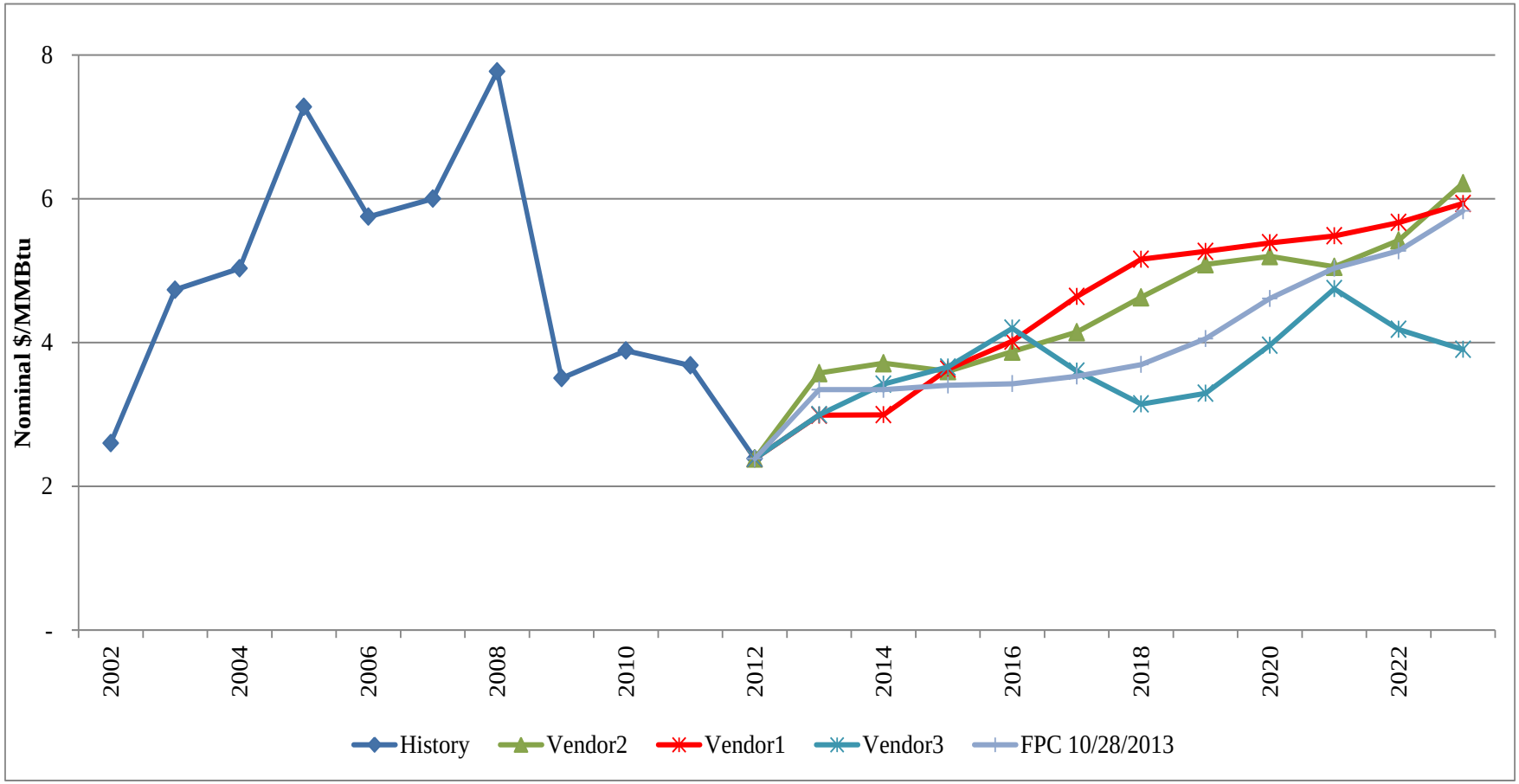
- HH will maintain a widening premium over Opal and AECO through 2024. On the demand side ,this premium is brought on by the increased natural gas demands of LNG exports, industry, exports to Mexico, and power demand in the Gulf Coast.
- An incremental 6 BCF/day of lower 48 LNG exports is expected by 2021 (including the recently approved Freeport facility) .

Opal Price Forecasts



- An upside price risk is the closure of SONGS which is not completely captured in these forecasts; the closure of SONGS may provide price support for Opal in serving the California market. Another upside price risk is when Canadian LNG export facilities come online (2022), Opal will have a competitive advantage, over AECO, in serving the California market.
- A downside price risk is the potential for continued and increased supply from technology improvements and the continued westward push of Marcellus and Utica natural gas.

AECO Price Forecasts



- A downside price risk for AECO would be the delay or cancelation of Canadian LNG export facilities. Another downside price risk is that Marcellus and Utica shale gas continue to push Canadian gas out of the US, thereby stranding AECO supplies.
- A possible upside price risk is increased natural gas use in Alberta for tar sand development coupled with heavy Canadian LNG export development.

Market Fundamental Drivers

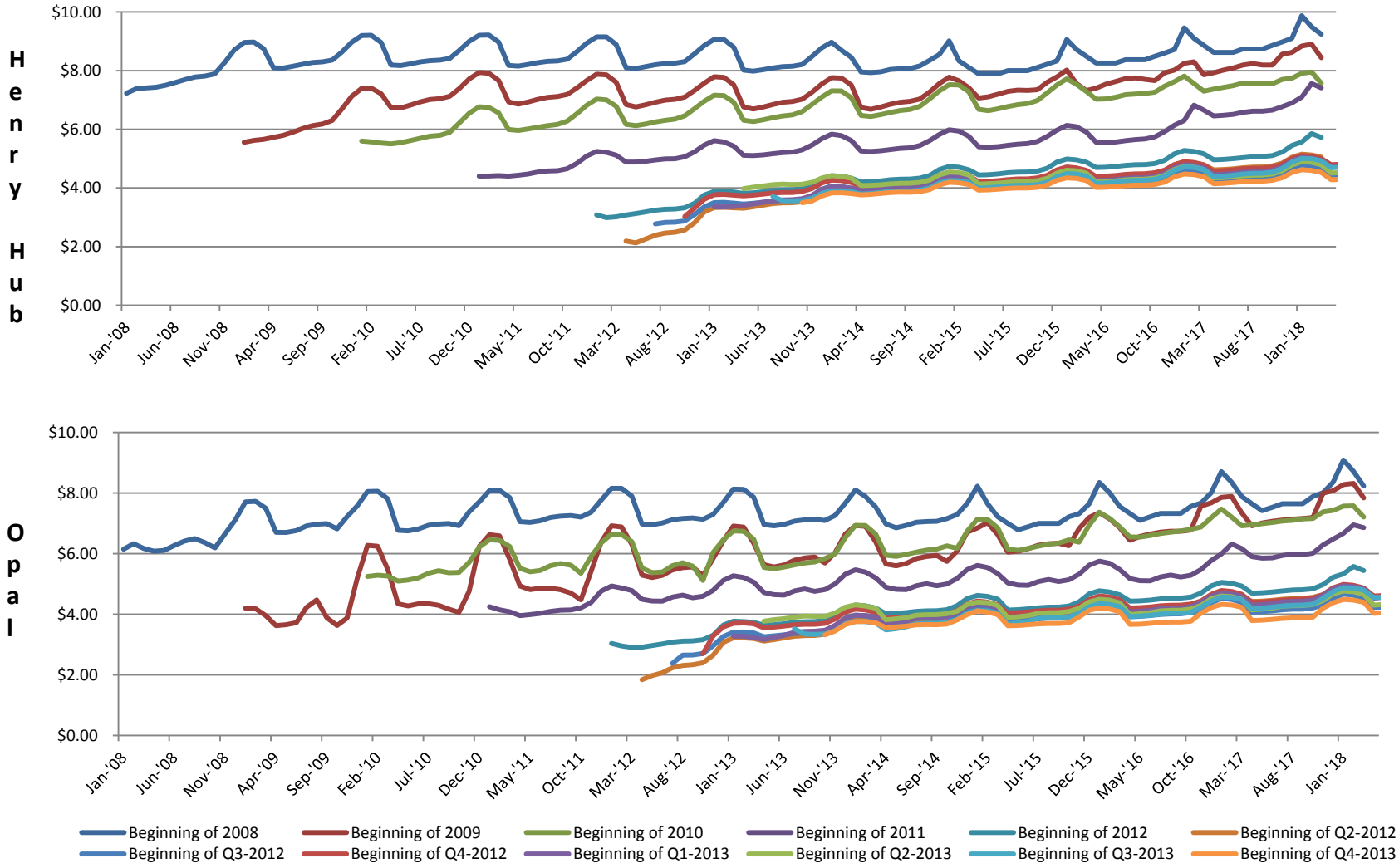
Downside Risks

- Continued westward push of Marcellus and Utica shale gas keeps Canadian gas at AECO.
- Continued rig efficiencies usher in production gains using fewer rigs. Overall, oil and gas production is up 57% in Eagle Ford alone.
- Associated gas in the Bakken and Niobrara coupled with development of the Montney and Duvernay shales support western gas production .
- Downside risks are most pronounced in the short term (2-3 years).

Upside Risks

- Closure of SONGS provides price support for Opal.
- Canadian LNG export opportunities in the early-mid 2020's provide price support for AECO.
- Increased tar sand development in Alberta provides strong price support for AECO.
- Opal receives price support in the mid 2020's with the expansion of Rockies take-away capacity.
- Increased demand from the industrial, power, transportation, and export sectors provides continued price support for Henry Hub especially.

Forward Price Curves



*Forward price curves have decreased almost steadily from 2008 to 2013. However, each curve shows increasing prices.

Source: PacifiCorp Official FPC