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Delivering a Bright Future

**Natural Gas & Electricity
Price Forecasts**



2003 Resource Plan

- Used the Northwest Power and Conservation Council's (NWPCC) electricity and natural gas price forecasts. Commission found this "reasonable."

2005 Resource Plan

- NWE considered NWPCC forecasts, but they did not reflect changing market fundamentals and were too low.
- NWE acquired natural gas and electricity price forecasts from Cambridge Energy Research Associates (CERA).



2007 Resource Plan

- NWE initially sought to use the CERA energy price forecasts, but new non-disclosure language restricting NWE from publicly sharing the CERA energy price forecasts.
- NWPC forecasts were outdated and not reflective of current market conditions.
- Ultimately, NWE hired Lands Energy Consulting (Lands) to prepare the forecasts. The Lands forecasts were based on NYMEX forward price strips for natural gas and electricity. Prices beyond 2011 were determined by applying a simple annual escalation factor of 2.5%.



2009 Resource Plan

- NWE again obtained energy price projections from Lands. Prices beyond 2013 were escalated using 3-year average GDP Implicit Price Deflator.

QF-1 Order: October 2010

- PSC adopted NWE's natural gas price forecast for the first five years and an average escalation rate from the Energy Information Administration's (EIA) Annual Energy Outlook.

2011 Resource Plan

- NWE used forward price information published by the InterContinental Exchange (ICE) for Mid-C and AECO. Escalators based on the implicit price deflator for GDP were applied to periods beyond the forward price strip timeline.



PSC comments on the 2011 Plan

- PSC noted that NWE's long-term price forecasts were contested in various proceedings. The Commission suggested that NWE consider incorporating other long-term forecasts (for example, EIA and NWPC).

QF-1 Order: December 2012

- PSC found the EIA forecast for Henry Hub to be a "reasonable source" for annual escalation rates used to project natural gas prices in later years.

2013 Resource Plan

- NWE used Mid-C and AECO forward prices, escalated using the GDP price deflator through end of the study horizon.



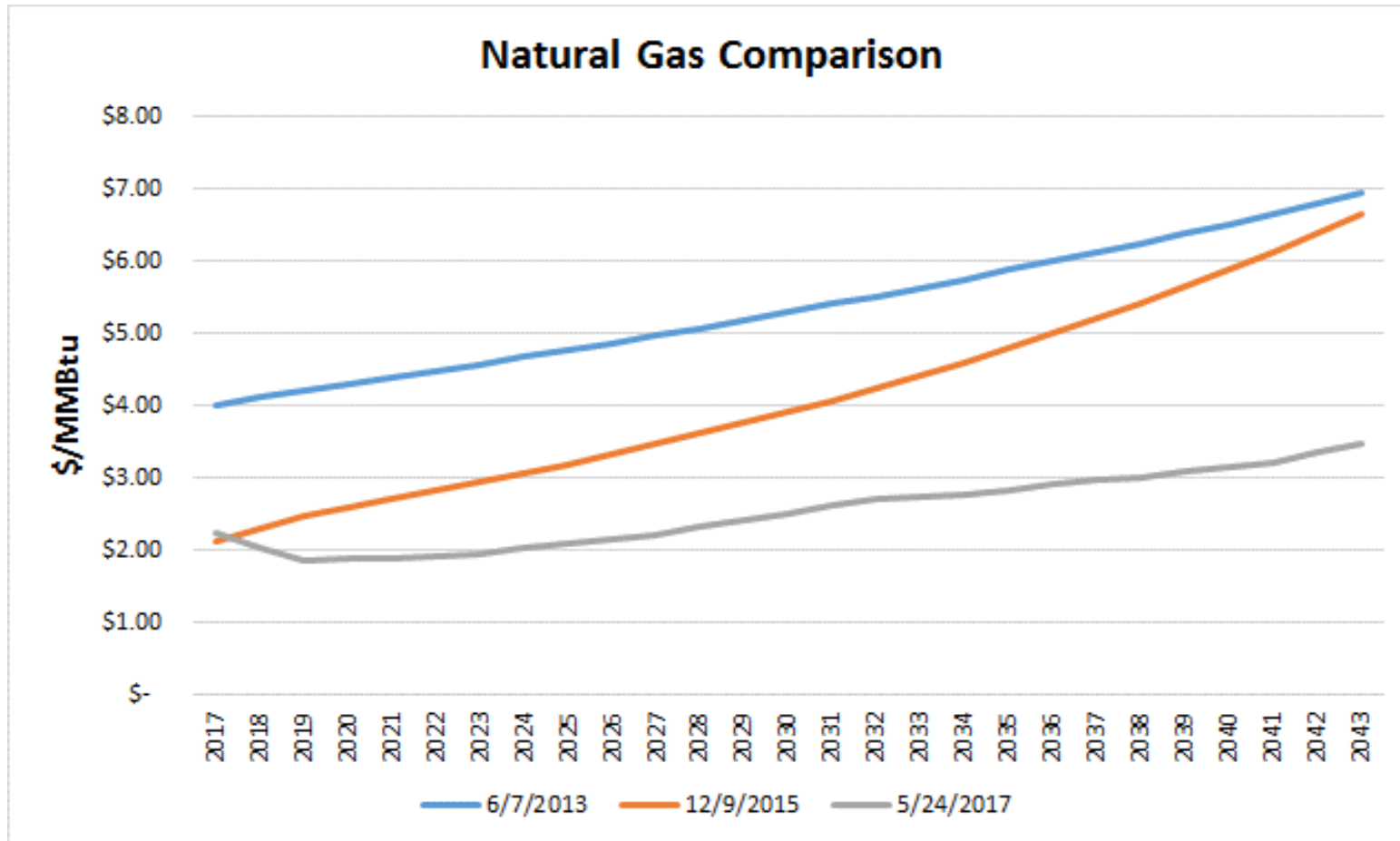
2015 Resource Plan

- NWE used natural gas and electricity forward price curves through 2020. After 2020, in compliance with prior PSC guidance:

- Near-term price curves were used until July 2020.
- Escalated using the rate of change in the Henry Hub natural gas prices forecast by the EIA 2015 Annual Energy Outlook.
- The electricity price was escalated using the same rate as natural gas in order to maintain the structural relationship between natural gas and electricity.

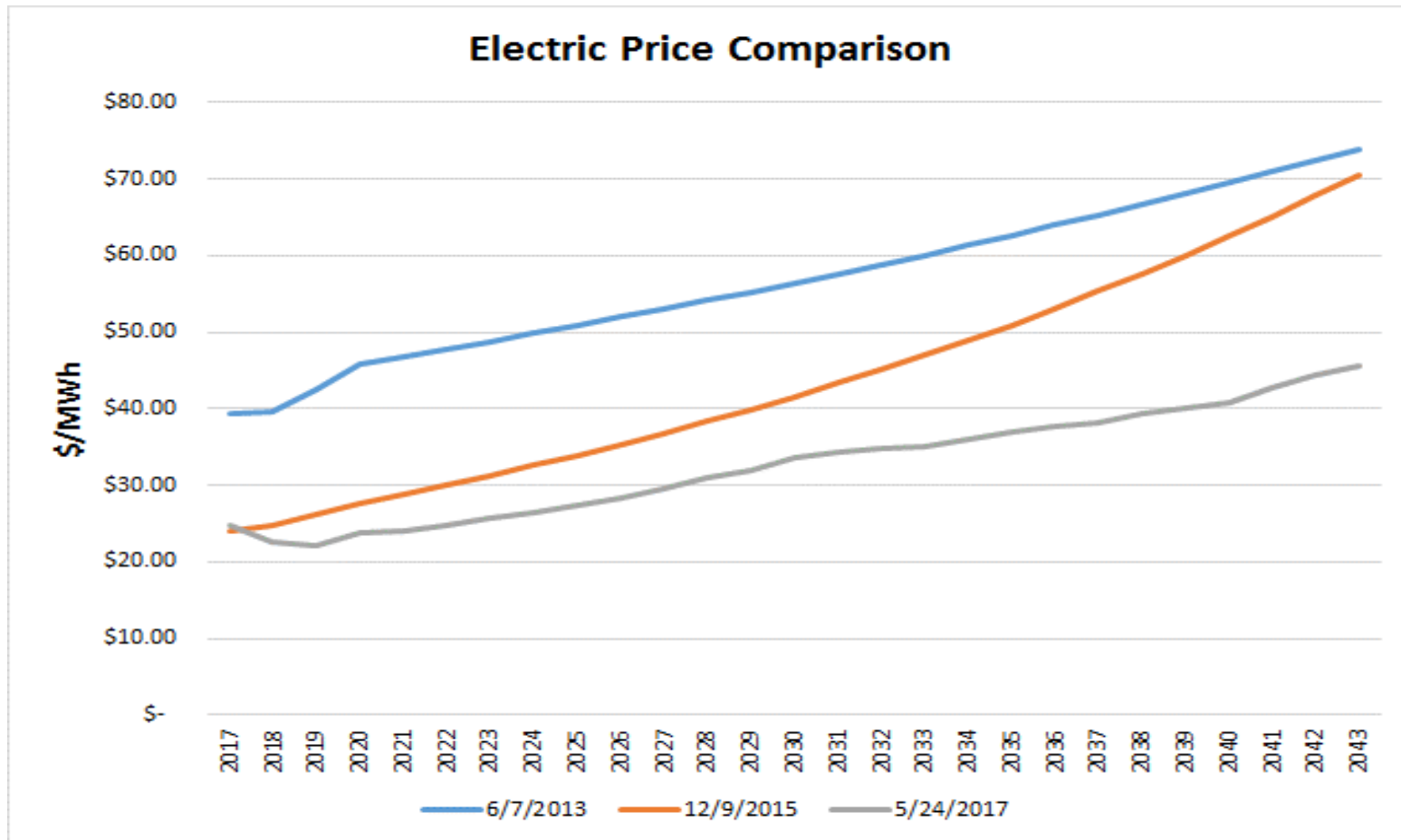


• Natural Gas Price Comparison





• Electric Price Comparison





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