

E+ Natural Gas Savings for Existing Businesses

This program offers prescriptive REBATES for qualifying natural gas energy saving measures in existing facilities. Eligible measures include high efficiency furnace/boiler or water heater, stack heat exchanger, infrared fryer, refrigeration heat recovery, boiler tune-up, DHW circulation pump time clock, Energy Management Control System (EMCS) optimization, water heater tank wrap insulation, boiler pipe insulation, service hot water pipe insulation, heating duct sealing and insulation, ceiling insulation, exterior wall insulation, and high efficiency windows.

E+ Business Partners Program

Provides customized incentives to commercial and industrial customers for electric and natural gas conservation. Examples of projects include measures to improve lighting, heating and cooling (HVAC) systems, refrigeration, air handling, and pumping systems. New and retrofit facilities are eligible. NorthWestern has hired two additional outside services firms to assist with development of DSM projects related to this program.

Green Blocks Program

NorthWestern Energy partners with the communities of Missoula and Helena to conduct a pilot energy conservation program called “Green Blocks”. A primary purpose of Green Blocks is to demonstrate basic residential resource conservation techniques in several neighborhoods or “blocks” within the cities by removing economic barriers to installation of energy conservation faced by consumers. The focus of this effort was to provide energy audits and installation of certain energy efficiency measures at no direct charge to program participants in hopes of achieving cost effective natural gas and electric savings. NorthWestern will examine the cost-effectiveness of this pilot program and make a determination whether to repeat and/or expand it in the future.

SECTION 7. MODELING AND ANALYSIS

Regarding the use of modeling for portfolio planning and natural gas procurement, the Tariff Guidelines state:

- (1) “The utility's natural gas supply portfolio planning and resource procurement and decision-making processes should incorporate cost-effective computer modeling and analyses.
- (2) The modeling employed by the utility should support an informed dialogue with its advisory committee, and contribute to prudent and informed judgments in the portfolio planning and resource acquisition process.

The Natural Gas supply has many characteristics that reduce the amount and type of modeling that must be performed as NWE carries out the Energy Supply function. Two key characteristics associated with meeting Energy Supply obligations are: natural gas load growth stability and natural gas market liquidity. Given the stability of Energy Supply's load growth, planning requirements are simplified. Also, natural gas markets are relatively liquid, and, even if there are unanticipated loads, additional supply is usually available as long as adequate transportation exists.

The Energy Supply Market Operations function ("Operations") does employ computer modeling (primarily using cost-effective spreadsheets), and the use of market forecasts, in its work. However, Operations has, and will continue to, primarily employs a combination of disciplined market purchases (consistent with this Plan) and opportunistic purchases informed by market intelligence and experience – both of which are informed by long-term forecasts that are discussed below.

Natural Gas Price Market Trends

Natural gas supply prices are determined by fundamentals (generally supply/demand relationships) and psychological influences in global markets. These influences include the perception of events that may occur, as well as actual events. Factors affecting the price of natural gas can include participation by financial entities in the markets, supply and demand trends (actual and perceived), natural gas-fired electric generation requirements, the impact (and potential impact) of hurricanes or other natural disasters on production, national storage inventory levels, crude oil prices, and numerous other factors. In the past few years, technological advances in drilling and extracting natural gas from shale rock formations in the United States and Canada have materially increased available supply, which in turn has helped lower prices in actual and forecasted periods. With respect to these outside influences, NWE is generally a price-taker (i.e., NWE Energy Supply has little ability to influence prices or negotiate for a price that is significantly different from the market index price). Further, the price

of supply to Montana is not determined by the relationships of Montana loads and the availability of supplies in Montana. In general, Montana supply costs are primarily a function of prices at the AECO hub, with relatively small discounts or premiums, which are determined through negotiations.

In developing resource plans such as this, price forecasts play an integral role. At least two different types of uncertainty influence the accuracy of any forecast: uncertainty related to long-term changes in the industry, and uncertainty related to short-term natural gas price variability. Contributing to long-term uncertainty are long-term demand and supply issues, including some of the items mentioned above. Short-term gas price variability also affects the variance of long-term forecasts of natural gas prices. Actual natural gas prices in future months will reflect variability due to short-term conditions. In addition to those listed above, other examples of short-term supply and demand factors that can significantly affect prices include actual weather conditions in various markets, expected short-term weather conditions, and pipeline operational issues. In other words, the actual price of natural gas in the future will be influenced by short-term market fundamentals. Forecasts cannot capture market realities of this type.

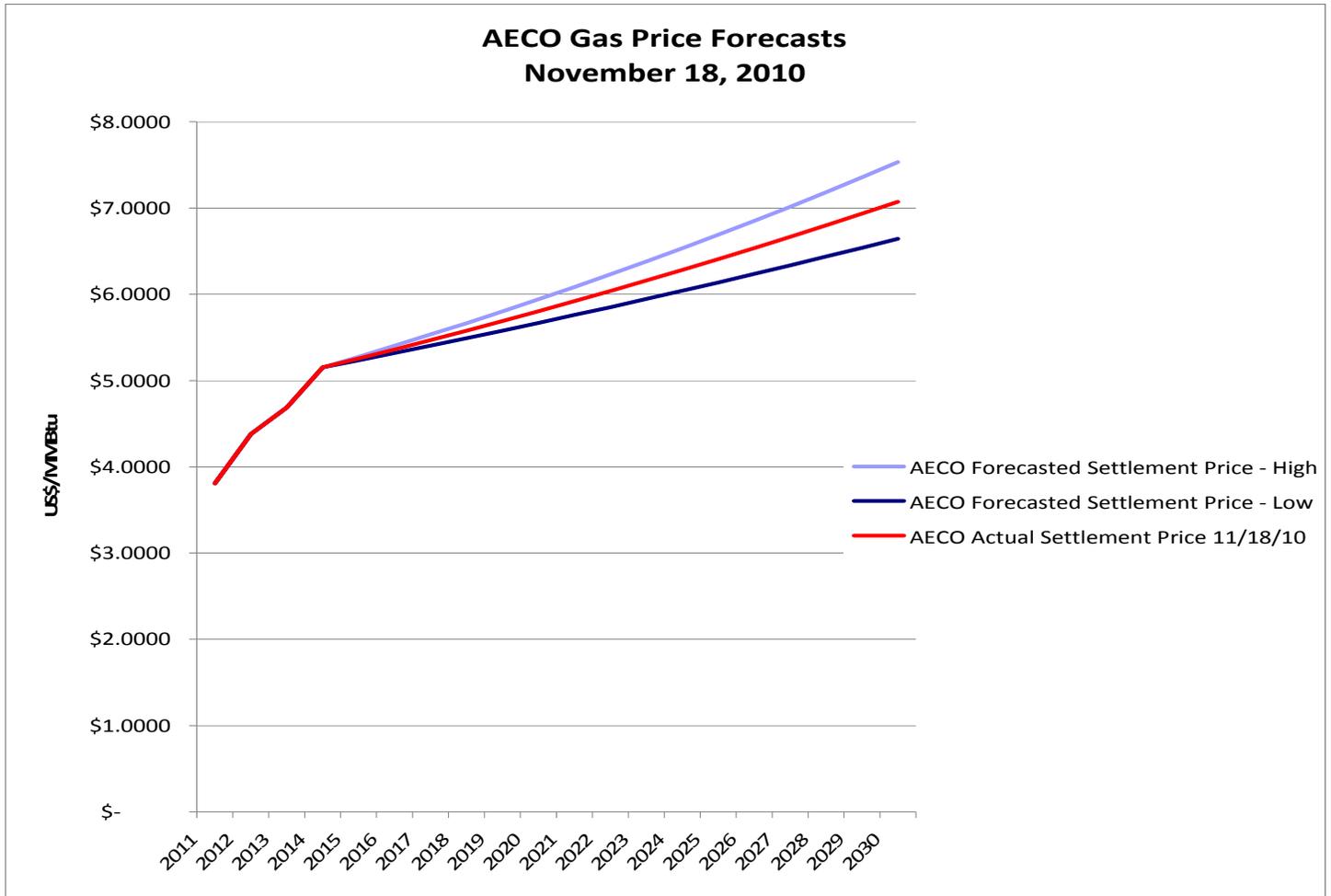
NWE uses price forecasts in many facets of its business: to mark certain fixed price contracts to market, to estimate earnings and cash flows, to forecast debt levels, to place value on potential natural gas and asset purchases, etc. In doing so, NWE must be consistent in its application of forecasted values. The methodology and construction of forward price curves must be the same regardless of the individual application for which it is being used. If not, decisions could be made in one area that negatively impacts another area. To guard against this, a fundamental component of NWE's risk management policy is that forward price curves must be constructed using the same methodology regardless of the application for which it is used. For example, when attempting to determine the value of a potential natural gas reserve acquisition, the price forecast being used must be assembled using the same assumptions and information sources as those used to value estimated earnings and cash flows or

those used to mark fixed price contracts to market. It should be noted, however, that price forecasts are always assembled using the then most current data and prices. Hence, a price forecast assembled in January 2011 will have a different value than one assembled in June 2011, but the difference will be due to changes in forward prices and not changes in the assumptions and methodologies used to make the price forecast.

The forward curve provided is a yearly average based on the natural gas settlement prices published by InterContinental Exchange (ICE) for the AECO hub. At the time the curve was provided, (November 18, 2010), ICE published prices for December 2010 through March of 2014. From April 2014 through December of 2030, it was necessary to model the curve through extrapolation. All three cases (actual, low and high) used an annual escalator of 2%, which is based on implicit price deflators for Gross Domestic Product. The actual curve was increased and decreased by 20% for the high and low cases.

For informational purposes, Figure 2 depicts NWE's internally generated forward price curve for the AECO trading point.

Figure 2: AECO Natural Gas Price Forecasts



Although long-term natural gas forecasts have inherent limitations, the information shown above provides NWE another point of reference in its resource acquisition decision-making process. Natural gas price assumptions are important for natural gas acquisition planning. However, both long and short-term uncertainties make over-reliance on these tools problematic.

NWE understands that its acquisition strategies must take uncertainty into account. (In fact, short-term uncertainties and price volatility are factors that

argue strongly for a systematic purchasing approach such as NWE describes below in its hedging proposals). Actual resource acquisition decisions, while utilizing some perspectives from long-term forecasts, are based more on short-term fundamentals.

NWE also uses natural gas forward market prices to observe the prices at which market participants are willing to transact for delivery in future months. This provides information, but only at a particular point in time. Forward prices augment the information provided in the longer-term fundamental natural gas price forecasts.

SECTION 8. RISK MANAGEMENT AND MITIGATION

Hedging Plan Going Forward from January 2011

The goal of NWE's short term hedging strategy is to dampen natural gas price volatility in an effective, systematic, and efficient manner. NWE currently purchases 100% of its physical natural gas supply based on an index (market) price. The hedging strategy NWE proposes for this plan involves four main areas:

- 1) Utilizing storage to provide reliability and remove a portion of the expected price volatility;
- 2) When applicable, using storage to capture the difference between winter and summer priced natural gas, resulting in transactions that are beneficial to NWE. The net value of these transactions is credited to customers and therefore, reduces rates. This is referred to as "asset monetization";
- 3) Entering into transactions that convert index priced purchases to fixed or known values; and
- 4) Continuing to pursue opportunities to purchase natural gas reserves and production in order to provide long-term price stability.