

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.

While these strategies seek to mitigate supply price volatility and provide supply cost stability and affordability, they cannot shield customers from natural gas market price trends. NWE will work diligently to dampen price volatility and currently proposes to have, at a minimum, 55 – 70 percent of the upcoming winter heating season hedged.

Storage

Storage has proven to be an effective and flexible tool to mitigate short-term price impacts. When natural gas is placed in storage, the index priced natural gas becomes a known price, and, therefore, becomes a fixed priced hedge. NWE has developed the following storage plan for future injection and withdrawal periods.

Energy Supply is proposing to use roughly 8.3 Bcf of the 9 Bcf of storage natural gas capacity that is available for its use (see Table A1 below). Of this 8.3 Bcf, NWE is proposing to use 1.8 Bcf for asset monetization, with any credit given back to ratepayers. The remainder, or 6.5 Bcf, is the amount of storage that will be available for use during heating seasons (see Table A2). Energy Supply can inject another 0.7 Bcf of additional storage to reach the total of 9.0 Bcf, and may do so, depending on changing supply and market conditions.

Asset Monetization

Asset monetization is simply capturing, when available, the price spread between when natural gas is injected in storage and the price when it is withdrawn and sold. For example: If natural gas can be purchased for injection in May – July at an average price of \$3.00/Dkt and can simultaneously be sold to a third party for withdrawal in the following Jan – Mar for \$5.00/Dkt, there is a \$2.00 spread. The carrying cost at these prices would be approximately \$0.19/Dkt. The incremental transportation cost to deliver this natural gas to a liquid market (AECO) would be \$0.73/Dkt. So, whenever the average injection month's price is greater than the average withdrawal month's price by more than \$0.92/Dkt, it makes sense to

optimize or fill storage and flow the residual revenue back to customers through reductions to natural gas cost. Obviously, NWE will attempt to time these transactions to maximize customer benefit. If the spread is not large enough to recover the cost, asset monetization will not occur, and the total storage inventory target will be reduced by the proposed asset monetization volume of 1.8 Bcf. The differential between summer and winter prices is very small right now. This means that spreads greater than \$0.92/Dkt may be unlikely for the next two heating seasons.

Table A1. Physical Natural Gas Storage Injection Plan (April - October xxxx)

Est. beginning balance (March 31, xxxx)	0 .3 Bcf
Injection during March-Oct. (flowing gas less load)	<u>8.0</u>
Total	8.3 Bcf

Table A2. Proposed Natural Gas Storage Usage

Estimated natural gas withdrawn for winter needs	6.5 Bcf
Natural gas available for asset monetization	<u>1.8</u>
Total	8.3 Bcf

Table A3 below provides an illustration of how storage should refill during the injection season and how it could be used during the withdrawal season. These numbers are for illustrative purposes only and are subject to numerous conditions. Weather (heating degree days), for example, is one of the most significant variables that will affect the injections and withdrawals of natural gas to/from NWE's storage. The 1.8 Bcf of asset monetization will only be utilized when the price spread between the injection price and the withdrawal price allows for additional reductions to natural gas cost after recovery of all carrying and transport costs.

Table A3. Systematic Natural Gas Storage Usage

Systematic use of natural gas storage (volumes in 000's cubic feet)														
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Nov-Mar
Apr	450	-	-	-	-	-	-	(300)	(310)	(465)	(415)	(310)	(1,350)	(1,800)
May	-	1,100	-	-	-	-	-	-	-	-	-	-	1,100	-
Jun	-	-	1,600	-	-	-	-	-	-	-	-	-	1,600	-
Jul	-	-	-	1,900	-	-	-	-	-	-	-	-	1,900	-
Aug	-	-	-	-	1,600	-	-	-	-	-	-	-	1,600	-
Sep	-	-	-	-	-	1,400	-	-	-	-	-	-	1,400	-
Oct	-	-	-	-	-	-	(150)	-	-	-	-	-	(150)	(150)
Nov	-	-	-	-	-	-	-	(1,100)	-	-	-	-	(1,100)	(1,100)
Dec	-	-	-	-	-	-	-	-	(1,500)	-	-	-	(1,500)	(1,500)
Jan	-	-	-	-	-	-	-	-	-	(1,600)	-	-	(1,600)	(1,600)
Feb	-	-	-	-	-	-	-	-	-	-	(1,250)	-	(1,250)	(1,250)
Mar	-	-	-	-	-	-	-	-	-	-	-	(900)	(900)	(900)
Starting Bal - > 400	450	1,100	1,600	1,900	1,600	1,400	(150)	(1,400)	(1,810)	(2,065)	(1,665)	(1,210)	(250)	(8,300)
Cumulative Month End Bal ->	850	1,950	3,550	5,450	7,050	8,450	8,300	6,900	5,090	3,025	1,360	150	Winter Hedge	(6,500)

The amount of available winter storage hedge (6.5 Bcf) is a function of storage available in October (8.3 Bcf) less the 1.8 Bcf NWE has proposed to make available for asset monetization.

Hedging

The primary vehicle for medium-term hedging will be fixed price swaps (agreements that allow for settlement between an agreed upon fixed price and an agreed upon index) executed at prices less than \$7.00/Dkt. NWE proposes the following medium-term or multi-year hedging strategy:

- a. Continue to have 2 Bcf of “layered” fixed forward contracts for delivery in each November through March of the years 2010/2011, 2011/2012 and 2012/2013;
- b. The result will be a declining volume of fixed price contracts for the next three years;
- c. Continue similar purchases annually thereafter until a minimum of 2 Bcf is available at fixed prices from these hedges during November through March in each year;
- d. Once the existing fixed price hedges are fully reduced to the 2 Bcf level, the seasonal, short-term hedging activity will be reviewed to ensure that the total volume of natural gas being fixed price hedged is appropriate. Currently, the target is 55% - 70% of the total winter supplies.

NWE will document its analysis of market conditions at the time it enters into fixed price hedges. This documentation will include: NWE’s view of North American supply versus demand for the next two years, including Western U.S. and Western Canada supply versus demand; economic factors both globally and locally; extrinsic factors such as weather disruptions or infrastructure disruptions to supplies in North America or locally; and localized supply versus demand growth on the NWE natural gas system.

Call Option Study

During the next two heating seasons, NWE will compare the feasibility and the practical value of purchasing Call Options instead of Fixed Price Swaps. NWE will price the Call Option on the same day that it considers or enters into a Fixed Price Swap. The cost and benefit of both products will be compared over the next two years and NWE will publish the results at the time that the 2012 Natural Gas Procurement Plan is filed.

Liquidity

Liquidity is a serious issue that must be taken into account by NWE and policy makers. NWE is raising the liquidity issue in this Plan to begin discussion on how best to address these concerns. NWE is not seeking to use this Plan as the forum for resolving the issues surrounding liquidity; rather, NWE is using this opportunity to outline the issue and to note that liquidity concerns are significant and must be addressed.

A liquid asset is commonly thought of as cash or an asset easily converted into cash. Ensuring the availability of sufficient liquidity is necessary to guarantee that a company can meet its short-term liabilities. NWE, like all businesses, has a finite amount of liquidity available to meet all of its business functions. Thus, there are ongoing competing business demands between all of the various business functions for the available liquidity. For example, the functions of Electricity and Natural Gas supply both require the use of large amounts of liquidity as does maintenance, refurbishment and organic growth of the transmission and distribution systems.

NWE is continuously working to assure it has sufficient liquidity to operate all of its business functions, including Energy Supply. Currently, Energy Supply has limited ability to generate or gain access to liquid assets (such as short-term lines of credit) and thus it must “borrow” or lean on other areas of the company for its liquidity. In doing so, it is in a sense taking the liquidity of the other areas (regulated transmission and distribution) to operate Energy Supply functions.

Implementation of natural gas hedging actions can impact the liquidity of NWE and the effects (depending on the type and term of hedging actions, and the volume of the hedges) may become significant to NWE's operations. For example, for every 1.0 Bcf of natural gas secured at a fixed price, a one-dollar move in the market would cause the mark-to-market to change by \$1 million. In addition to mark-to-market concerns, substantial upfront-cash outlays are required to fill storage. For instance, if natural gas prices are \$4.50 per Dkt, a \$4.5 million outlay is required for each 1.0 Bcf of natural gas placed in storage. Each of these scenarios would require substantial amounts of liquidity. As explained above, these Energy Supply related liquidity demands must compete with other business areas of NWE.

SECTION 9. TRANSPARENCY AND DOCUMENTATION

NWE believes this Natural Gas Procurement Plan provides a clear and transparent understanding of the approach Energy Supply will take in serving customers' needs. Energy Supply will follow this Plan (unless NWE, using its judgment, believes modifications are necessary). The procurement environment is highly complex, developments can be swift and often require experience to properly interpret, and transactions are numerous. That said, any deviations from this Plan will be clearly documented by Energy Supply and discussed with interested parties. The importance of documentation in the regulatory process is clear.

NWE has attempted to provide a clear and defined acquisition strategy in this Plan and awaits feedback from the MPSC concerning its strategies. Discussions with the MPSC and MCC about the Plan, strategies and actions have been ongoing. NWE believes this method of communication should continue and will schedule discussions throughout the upcoming plan period.