EXHIBIT NO. ___(DEM-13C)
DOCKET NO. UE-11____
PCA 9 COMPLIANCE
WITNESS: DAVID E. MILLS

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of **PUGET SOUND ENERGY, INC.** **For Approval of its March 2011 Power Cost Adjustment Mechanism Report**	**Docket No. UE-11____**

TWELFTH EXHIBIT (CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF DAVID E. MILLS ON BEHALF OF PUGET SOUND ENERGY, INC.

REDACTED VERSION

MARCH 31, 2011

PUGET SOUND ENERGY, INC.

TWELFTH EXHIBIT (CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF DAVID E. MILLS

FUNDAMENTALS AND MARKET PRICES AFFECTING MAY 2010

From [redacted] to [redacted], forward prices for power and natural gas remained high due to global demand for energy, lower Canadian natural gas production and LNG imports. By [redacted], traders had been closely watching natural gas storage levels amid fears that an unusually hot summer or an active hurricane season could lead to supply constraints. An ongoing outage at Independence Hub, a major deepwater U.S. Gulf of Mexico gas platform, and dwindling imports of LNG from overseas were also contributing to supply concerns. In [redacted], diesel imports into China increased eight fold compared to the prior year, as the country prepared for the Summer Olympics. A growing global demand continued for distillate fuels, such as heating oil and diesel. On [redacted], the profit margin, or crack spread, for making a barrel of oil into a barrel of heating oil surged to $29.554 a barrel -- the highest since at least 1989.

The U.S. Energy Information Administration's ("EIA") [redacted] monthly report increased the 2008 average gas price from the previous figure of $9.69/MMBtu to just above $11.00/MMBtu. There were concerns that flooding in the Midwest could severely damage the corn crop used for developing alternate fuels and create further energy supply shortages.

But by [redacted], forward natural gas prices began to fall. The next month's (also known as the "prompt" month) natural gas prices were down about 12 percent, winter 2008/2009 prices were down about 10 percent and summer 2009 prices were down about 7 percent. Rumors circulated that Lehman Brothers started the selloff by liquidating their energy holdings. However, viewed on a seasonal basis, natural gas sometimes endures a bull market correction from a spring peak to a summer low. The first hurricane of the season, [redacted], formed in early [redacted] but dissipated by [redacted]. Although wind shear in the Atlantic lessened the chances of hurricanes forming, Tropical Storm Cristobal was thought to potentially upgrade to a hurricane sometime in early to mid-August. By mid-[redacted], however, the National Oceanic and Atmospheric Administration ("NOAA") noted that environmental conditions were becoming "less favorable" for hurricane development. EIA weekly data showed that U.S. consumers were using less gasoline -- in the first week of [redacted], demand for gas reached a five year low, [redacted] demand was down 2.2 percent and [redacted] demand was down one percent. Were these the makings of a perfect storm? A weak hurricane season combined with increased domestic production and takeaway capability, a milder winter, and Europe relying less on LNG could decrease prices. President Bush announced he would call on Congress to end the 18-year moratorium on oil and gas drilling on the outer U.S. continental shelf. If approved, this would have downward pressure on oil and gas prices.

By [redacted], a strengthening U.S. dollar and weakening oil prices were putting downward pressure on natural gas prices. Regardless, there was potential for prices to move higher rather than lower if storage injections fell below forecasts, weather on the east

coast got warmer, hurricane activity picked up or weather forecasts for winter were below normal. In a conference call on gas supply, Barclays reported that there was momentum to current drilling programs, which should be reflected in prices 6-12 months out as production was to come on-line, and the probability of exporting gas through LNG from the U.S. was highly unlikely because not only was the cost of building an LNG facility high (approximately $2 billion), but a long-term agreement (20-30 years) would be needed to cover the costs.

By [redacted], Hurricanes [redacted] had damaged ten oil rigs, but spared oil and gas production facilities in the Gulf of Mexico. Demand, however, was falling faster than the loss of supply and the largest decline in gas demand (3.3 Bcf/day) was from the industrial and power sectors. The cumulative deferred production since [redacted] arrival was estimated to be 192 Bcf through the end of [redacted].

In [redacted], the Organization of the Petroleum Exporting Countries ("OPEC") scheduled an emergency meeting in Vienna to discuss the declining price of crude oil and strategies to control it. Market observers anticipated a reduction of one million barrels would be required to stabilize declining prices. Iran favored a cut between 2.0 to 2.5 million barrels, citing the risk of a "prolonged" global economic downturn. Standard & Poor's ("S&P") slashed its forecasted natural gas prices by $2.00/MMBtu, to $7.00/MMBtu for 2009 and 2010, and said that in 2011 and beyond, gas prices would average $6.00/MMBtu. Raymond James & Associates stated the U.S. rig count would fall by more than 10 percent year over year in 2009 with a 40 percent peak to trough decline in the natural gas rig count. By [redacted], U.S. natural gas storage was at near record

highs. Raymond James & Associates Inc. noted that the 2009 natural gas price outlook was "still very ugly" and given the current over supply, even a colder-than-normal winter would be unlikely to prevent a gas price collapse in 2009. Due to the price differential and demand levels between North America, Europe and Asia, North American LNG imports were extremely low in 2008 compared to 2007. By [redacted], Barclays was reporting that rotary rig counts were down by 49 in Texas, Louisiana and Colorado, however, this was expected to only affect 2009 production. In addition, Canadian gas imports were down due to weaker U.S. demand.

In [redacted], PIRA noted that despite what was shaping up as a dry water year, similar year over year conditions and the timing of the flows should allow hydro generation to increase during the March-May 2009 period. However, this would be a timing benefit only and hydro generation later in the summer, i.e. during June and July, was expected to decline. Gas would more than likely be the primary victim of the bearish economic backdrop, despite the relative price weakness - and those effects would be more material in comparison to the impact on gas from the upcoming year over year monthly swings in hydro generation. Gas rig counts were down 36 and at the current pace, the target of 800 rigs, mentioned by different consulting firms as the level needed to balance the gas market supply/demand later in the year, would be reached by the end of March. Raymond James & Associates reported that the massive reductions in demand and the surge in supply combination meant that there was no good news for natural gas over the next three to six months and prices could decline to or below $2.00/MMBtu.

By [redacted], on one level, analysts were looking back and sensing that the price dynamics of the last six years were unusual and that current natural gas price levels were more representative of normal. Others, however, saw the low natural gas prices as only temporary. Wood Mackenzie expected a 2.1 Bcf/day year-over-year decline in industrial demand through the first quarter with both the economy and reduced heating loads for February 2009 contributing to the decline.

In [redacted], Colorado State University (CSU) lowered its Atlantic hurricane forecast for 2009 to 12 named storms, with at least half of them likely to become hurricanes. Two of the storms were expected to develop into intense or major hurricanes with sustained winds of 111 mph or more. CSU expected the then-current weak La Nina conditions to transition to neutral and perhaps morph into weak El Niño conditions by the start of the 2009 hurricane season. CSU said if El Niño conditions developed for 2009's hurricane season, it would tend to increase levels of vertical wind shear and decrease the levels of Atlantic hurricane activity. Fitch Ratings was no longer optimistic about a 2009 rebound in natural gas, and cut its 2009 base case price for gas to $4.25/MMBtu (Henry Hub) because of the protracted global economic slump

By [redacted], El Niño appeared to be making a come back and tropical Pacific waters continued to warm. According to Bentek Energy, California would need very little power from the Pacific Northwest ("PNW") due to an oversupply of gas when they noted, "Gas prices in Southern California will have to remain low, and heat rates will have to remain high in order for the California gas supply surplus to be reduced to more normal levels by next winter. Gas prices at Sumas should remain under some downward pressure

because California is expected to rely less this summer on southbound power transmission capacity" during the summer. Natural gas storage in the West was 122 Bcf above the previous year, in the East was 78 Bcf above the previous year and in the Producing Region was 282 Bcf above the previous year.

In [redacted], with two weeks into the hurricane season, there had been only one tropical depression. The tropical Pacific was showing more and more signs of a developing El Niño and there was already plenty of wind shear (bad for storms) over the majority of the tropical Atlantic. Assets in the United States Natural Gas Fund ("UNG") swelled to around $3.7 billion from about $670 million in February 2009. Funds holding commodities are typically restricted on the number of shares they can issue to meet investor demand, and the UNG was running out of shares, so the fund talked of filing with the SEC to increase the number of shares by ten times. The Fund's sheer volume and speculative approach were creating a new dynamic in the natural gas market and creating very bullish sentiments.

By [redacted], sea surface temperatures in the tropical Pacific dropped, however, subsurface temperatures continued to run well above normal. It was thought that El Niño could still develop through the fall and winter months. The final runoff for the water year was 79 percent of normal. LNG was expected to increase in the third and fourth quarters of 2009. Coal to gas substitution occurred during the spring months and was expected to return in the fall (1 Bcf to ½ Bcf incremental demand). Citing weakness in the Gross Domestic Product, continued shale gas development, new coal capacity, and new LNG, Wood Mackenzie delivered a bearish fundamental outlook for natural gas prices with

calendar 2010 at $4.50/MMBtu, calendar 2011 at $4.75/MMBtu and calendar 2012 at $5.20/MMBtu. For reference, the current 2010 average price was at $5.54/MMBtu, 2011 was at $6.44/MMBtu and 2012 was at $6.74/MMBtu.

By [redacted], NOAA followed suit with other hurricane forecasters and lowered its tropical storms expectations due to the development over the past couple of months of an El Niño event. El Niño events tend to be associated with increased levels of vertical wind shear and decreased levels of Atlantic hurricane activity. PIRA estimated that storage levels by the end of August would reach 3.4 TCF and September estimates were 3.7 TCF, which was very close to the maximum estimated capacity of approximately 3.9 TCF. Total injections for October 2008 and the first week of November 2008 totaled 362 Bcf and the five years average was 285 Bcf. Global LNG spreads had narrowed significantly, which meant more chance of supplies coming to the U.S. In addition, the year over year natural gas storage deficit in Europe had evaporated.

By [redacted], a weak El Niño resulted in warmer winter forecasts for the northern U.S. west of the Mississippi River. After months of speculation about when natural gas production would begin to decline, the production numbers started to show the impact of lower active rigs. September production was estimated to be about 3 Bcf/day lower than July. The British Columbia government increased interest in active shale gas plays by offering a new package of royalty incentives to stimulate exploration and development.

By [redacted], forecasters were calling for a moderate El Niño for the next couple of months. With hurricane season nearing its end, there was still a chance that a storm could develop though less likely at this point in time. The 2009 tropical season was shaping up to be a non-event for the natural gas market as no gas production was interrupted by storms during the season. The recent rally in natural gas prices was likely due to short covering, a lower probability of a storage induced price meltdown and declining production; however, with bearish November through December winter weather forecasts, the strength in natural gas prices could be short-lived.

By [redacted], the El Niño event was moving towards the moderate to strong range and weather forecasts for December and January were showing above normal temperatures for most of the nation. Natural gas storage was above both the five-year average and the previous year's level. An additional bearish indicator for natural gas was the increase in U.S. gas rigs, which were up 22 rigs for the week ending November 20, the largest weekly increase in over a year. The hydro outlook for the 2010 runoff season was off to a slow start given the warm weather. Water year precipitation to date was slightly above normal, but snowpack, or snow water equivalent, was well below normal for the Mid-Columbia drainage basins.

By [redacted], weather forecasters officially called an El Niño event; however, there were two schools of thought on how long it would last. One expected a strengthening of the El Niño pattern which would result in above normal winter temperatures. The other expected the El Niño to fade by mid-December, bringing colder-than-normal weather to the Northeast for the remainder of the winter and early spring.

Forecasts for January continued to show a warming trend across the nation. February weather forecasts called for cold in the east and warm in the west. As a result, natural gas prices were ticking back up. Large withdrawals from gas in storage occurred this month due to the cold weather. The hydro outlook for the PNW was forecast to be 87 percent of normal, given the lack of precipitation.

In [redacted], cold weather was the theme. Despite starting the heating season at record natural gas storage levels, colder than normal weather in the east caused near record withdrawals. Forecasts showed continued cold weather in the east and warmer than normal in the west. Adding to the bullish sentiment in natural gas prices is the recent drop in Canadian imports. The hydro outlook in the PNW dropped from 90 percent of normal at the beginning of the month to a paltry 79 percent of normal by month end. However, bearish factors were also weighing in on the market. Production was showing signs of efficiency. While below historic high levels, charts are reflecting that gas production can be maintained at lower rig counts. That said, the number of rigs continued to climb year over year, suggesting supply may soon follow. In addition, nuclear generation output was lower compared to this time last year.

By [redacted], continued cold weather in the east combined with sustained high levels of withdrawals from storage, supported natural gas prices as the industry focused on end of season storage. While weather forecasts continued to show warm weather in the west, the east remained cold. Snowpack for the hydro dependent PNW was at 77 percent, well below normal, providing support for the Mid-Columbia power prices for the spring and summer. Early summer 2010 weather forecasts were suggesting cooler than normal

temperatures due to El Niño, providing some bearishness to the market. Rig counts continued to climb, suggesting that supply would be forthcoming.

By [redacted], natural gas withdrawals from storage continued to be strong compared to prior years and five-year averages. However, despite this being one of the coldest U.S. winters since the 1980's, gas prices started to fall as the end of the heating season approached. Increasing rig counts and decent production continued to create an overhang for the 2010 gas balances. Domestic LNG forecasts rose with 3.3 Bcf/day expected. On the bullish side, continued below normal hydro expectations in the PNW –73 percent of normal – gave support to power prices.

By [redacted], recent guidance showing big changes in sea surface temperatures changed forecasts to a La Nina, increasing the probability of a warmer summer and cooler/wetter winter for the PNW. A preliminary forecast called for above normal storm activity for the 2010 hurricane season. As for the PNW hydro outlook, both snow water equivalent and precipitation for the water year to date continued to decline, continuing to support the power prices for the spring and summer months. On the bearish side, price softening, along with increased production, reduced the incentive to store gas, causing a decline in demand. Production and rig counts remained stable, dampening supply concerns moving forward. PIRA forecasted incremental LNG flows into the U.S.