EXHIBIT NO. ___(DEM-11C)
DOCKET NO. UE-12____
PCA 10 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 2012 Power Cost Adjustment Mechanism Report**	**Docket No. UE-12____**

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

REDACTED
VERSION

MARCH 30, 2012

PUGET SOUND ENERGY, INC.

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

FUNDAMENTALS AND MARKET PRICES AFFECTING AUGUST 2011

From [redacted] to [redacted], forward power and natural gas prices continued to drift lower, feeling pressure of a strengthening U.S. dollar and weakening oil 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 the [redacted], natural gas prices ticked up on news that Chesapeake, the largest independent producer of natural gas by volume, had cut its natural gas output by about 13 percent of its gross operated natural gas production capacity. Rig counts, including the productive horizontal rigs, continued to decline, adding upward pressure to gas prices. In the [redacted], as discussed below, forward prices for both power and natural gas reversed the trend and here began a downward price trend that continued into the summer of 2011.

In [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 [redacted] and [redacted], and said that in [redacted] 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 [redacted] 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 [redacted] 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 [redacted]. Due to the price differential and demand levels between North America, Europe and Asia, North American LNG imports were extremely low in [redacted] compared to [redacted]. 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 [redacted] 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 [redacted] 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 [redacted]. 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 [redacted] 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 [redacted] with both the economy and reduced heating loads for [redacted] contributing to the decline.

In [redacted], Colorado State University (CSU) lowered its Atlantic hurricane forecast for [redacted] 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 [redacted] hurricane season. CSU said if El Niño conditions developed for [redacted] 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 [redacted] rebound in natural gas, and cut its [redacted] 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". 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 [redacted]. 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], although sea surface temperatures dropped in the tropical Pacific, subsurface temperatures continued to run well above normal. It was thought that El Niño could still develop through the [redacted]. The final runoff for the water year was 79 percent of normal. LNG was expected to increase in the [redacted]. 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 [redacted] at $4.50/MMBtu, calendar [redacted] at $4.75/MMBtu and calendar [redacted] at $5.20/MMBtu. For reference, the current [redacted] average price was at $5.54/MMBtu, [redacted] was at $6.44/MMBtu and [redacted] 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 [redacted] would reach 3.4 TCF and [redacted] estimates were 3.7 TCF, which was very close to the maximum estimated capacity of approximately 3.9 TCF. Total injections for [redacted] and the first week of [redacted] 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. [redacted] production was estimated to be about 3 Bcf/day lower than [redacted]. 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 [redacted] 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 [redacted] 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 [redacted] and [redacted] 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 [redacted], the largest weekly increase in over a year. The hydro outlook for the [redacted] 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 [redacted] temperatures. The other expected the El Niño to fade by [redacted], bringing colder-than-normal weather to the Northeast for the remainder of the [redacted]. Forecasts for [redacted] continued to show a warming trend across the nation. [redacted] 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 [redacted] 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 [redacted] 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 [redacted] hurricane season. As for the PNW hydro outlook, both snow water equivalent and precipitation for the water year to date remained well below normal, 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.

In [redacted], natural gas markets were up in reaction to the BP oil spill in the Gulf of Mexico ("GOM") that occurred in [redacted]. Market observers were also taking into consideration the initial summer weather forecasts calling for a hot summer, as above normal temperatures nationally and regionally normally cause increased demand which leads to price spikes. Additionally, the [redacted] hurricane season was quickly approaching and forecasters were calling for an above normal hurricane season. The regional hydro outlook continued at well below normal. Coal prices were up from the previous year, creating a floor for natural gas prices. On the bearish side, industrial demand remains down due to economic factors. Natural gas production continued to grow despite the stall in the economy, adding to the current over supply situation. The number of natural gas drilling rigs also continued to climb.

By [redacted], cooling of the Pacific waters continued and there were forecasts for a warmer than normal summer and cooler/wetter fall for the PNW. The GOM production continued to decline due to the federal government's drilling moratorium. Although the six-month moratorium should not affect the current oil and gas production, the ban could affect future supplies in the offshore areas. Gas production from onshore shale plays, however, will help offset the GOM declines. While the gas storage surplus started to shrink relative to the five-year average, inventory levels remained at a decent level. With production and rig counts stable, there were few supply concerns for the forward period.

[redacted] brought the first Atlantic hurricane of the season causing temporary production shut-ins. While we do see both bullish and bearish factors in the market, there appeared to be a growing consensus that the more likely path for pricing is bearish. Stocks plunged as U.S. consumer data showed concerns about slowing economic growth in the U.S. This lack of confidence in the U.S. economy, combined with growing concerns that growth was also slowing in China, increased fears of a global economic reduction. High U.S. unemployment rates and the turmoil in financial markets precipitated by the European debt crisis raised the risk that household spending will continue to falter.

[redacted] brings no major changes in market fundamentals, yet the gas forward price curve for years [redacted] and [redacted] have declined $0.40 to $0.50 from the last month. On the bullish side, LNG imports are down, heat in the East is propping up gas demand and coal prices are up year over year. Bearish factors include gas production growth and drilling, specifically shale and heavy liquid rich plays, an on-going weak U.S. economy and consumer confidence, not to mention the halt of oil flow into the GOM as a result of the BP oil spill.

As PSE entered [redacted], conditions were present for a moderate La Nina, which typically reflects warmer than normal temperatures in the East and cooler, wetter weather in the PNW for [redacted] through [redacted]. Such temperatures could result in lower gas demand nationally and a healthy start to the hydro year for the PNW, which would put downward pressure on both gas and power prices. Despite the heat that covered the East during the past summer, prices have not rebounded, nor are they expected to, given the healthy gas storage inventory and increased horizontal gas rig drilling activity.

By [redacted], the scales definitely tipped to the bearish side for gas prices. Demand remained soft - yet production continued to rise. Natural gas storage was well supplied and amid forecasts for a mild winter in the East and Midwest and a possible oversupply of natural gas, natural gas prices remain low. One of the few bullish factors at this time is the strength in equity and commodity markets which could potentially lend support to natural gas prices.

In [redacted], the bearish fundamentals continue. The cold weather in the East lends some short-term support to the natural gas market, but the overall winter forecast remained above normal for that region. Above normal precipitation in the PNW for the water year only adds to bearish sentiment for power and gas prices for the coming spring season, although it is early in the water year.

By [redacted], the scales have tipped to a more neutral territory for gas prices. The short-term cold weather in the East and the 11-15 day forecasts for continued cold in that region is propping up the natural gas prices. This cold weather will temporarily increase demand, which will likely result in decent gas storage withdrawals for the next few weeks. PNW hydro is running normal to slightly above normal. However, Canadian precipitation and snow water equivalent is below normal, adding a bullish sentiment. On the bearish side, production growth continues and horizontal rig counts are climbing.

For [redacted], cold weather nationally was the theme. Having once again started the heating season at record inventory storage levels, the extreme cold has caused heavy withdrawals in the eastern half of the country. Forecasts continued to reflect cold in the East with more seasonal to warmer bias out West. Adding to the bullish sentiment was a sizable amount of well freeze offs combined with residential and commercial demand exceeding records set in the prior [redacted] by nearly 2.5 Bcf/d. The Hydro year remains within normal range. Some bearish factors affecting the market included record on-shore U.S. gas production posting a new all time high of 60.8 Bcf/d, continued investment in shale drilling from sources domestic and abroad, and a lack of significant forecast demand to balance the pending supply.

[redacted] started as it has for most of the winter: cold. Signs of a forecast change are surfacing, with a view towards a warming East and a cool and wetter West by months end. Storage deficits are expected to grow compared to prior periods, due to the extended cold temperatures, high demand, and temporary supply interruptions. Snowpack regionally was marginally improving after a slow start. Mid-C power prices showed signs of softening in the spring and summer. Forecast increases in natural gas production and decreases in demand provide bearish sentiments. While rig counts have declined of late, they still support future supply growth at current levels.

By [redacted], despite an extremely cold winter that had seen natural gas storage withdrawals drop to significant inventory deficits when compared to relevant periods in the past, bullish support for sustained high forward prices had softened. The key contributors to this price softening were a return to pre-winter gas production levels, a decrease in seasonal demand, and a shift in cold temperatures away from key consuming regions in the East towards the less populated West. Other factors putting bearish pressure on the market are both the steadily improving conditions in the hydro-dependent PNW and overall rig counts, that even at current low levels, are not expected to create any meaningful slowdown in production.

[redacted] weather patterns - as is often the case in the shoulder seasons - struggle for consistency as PSE transitioned into the spring. Despite the initial warm bias in the West, it is expected that a more typical La Nina pattern will develop in the coming months, favoring a warm risk to Texas and the Southeast and a wet and cooler signal for the Northern and Western tiers of the country. Despite the bullish factors such as the nuclear disaster in Japan, unrest in the Middle East, and a cold Europe with increased demand for LNG have indeed added a uncertainty to markets, all is not bullish. Continued strength in gas production, recent and continuing forecasts for increased hydro conditions out the West, and the elimination of inventory shortfalls in gas storage create strong bearish factors.

By [redacted], while not expected to exceed the record breaking heat and resulting cooling degree days observed in 2010, forecasts were once again predicting that summer 2011 would be warmer than both the 10 year and 30 year normal temperatures. When warmer than normal temperatures are realized, incremental demand for cooling develops and can lend support for higher prices. Market prices are bullish with early prediction for only a slightly less active hurricane season as compared to last year, and also being more active than the 30 year average. Other bullish drivers include a sizable storage gap to fill, strong coal prices offering demand switching opportunities to natural gas, and increased levels and duration of nuclear maintenance in response to the tsunami in Japan and tighter expected nuclear regulation in the future. Bearish factors continue to be a consistently above normal regional hydro situation and strong growth in shale gas production.

As of [redacted] observers still expected La Nina influences to have a cooler bias in the West combined with warmer risk in the Southeast. Outside of the drought building areas in the Southeast, forecasts for a warmer summer had begun to ease when compared to last year's standard. Further bearish effects are being realized as the dramatic improvement seen in PNW hydro situation continue to develop in the West. Bullish factors in the market include a continuation of surging gas production despite the accompanied fracking concerns, the year on year storage deficit that still persists, and the amount of nuclear capacity remaining offline that sought replacement in the form of natural gas generation, supporting natural gas prices. Rig counts continue to vary, however significant enough decreases have not yet materialized to suggest any longer term threat to production.

Despite the first Atlantic hurricane of the season in [redacted], other than the normal heavy rains and some flooding in Central America, no threat to the GOM materialized.

Weather looked marginally bearish as well. With the exception of the heat that persisted in the Southeast, normal conditions in the East, slight cooling in the Midwest and a slow to warm West have kept demand muted. As the extended and sizable nuclear maintenance season came to a close, capacities finally rebounded to near 100% of normal, taking pressure off the recent demand for gas. Of note though, and while only a regional effect, the Columbia Generating Station remains off-line until the end of the month and is contrary to the effect observed nationally. Current bullish impacts in the market are the existing gas storage deficits to last year and comments from the Exploration and Production community of a shift away from the high volume dry gas production (which has been key in supporting recent supply excesses) towards more liquid rich oil plays that are projected to have less associated gas. Note, however, that even if this shift ensues on a large scale, it will take time, and is more of a longer term supply demand equalizer than a near term solution.