Executive Summary

This Integrated Resource Plan describes how Puget Sound Energy can meet the growing energy needs of its customers with the lowest reasonable cost combination of resources over the next 20 years.

As we acquire resources to meet the needs of our vibrant community, we also strive to demonstrate the environmental values our customers and region demand. They expect no less of us than leadership in the development of responsible energy resources, and we expect no less of ourselves. Our goal is to identify solutions that are both cost effective *and* environmentally sound.

The resource portfolio presented here is the least carbon intense portfolio we have ever identified as being least cost. It includes aggressive investment in energy efficiency as a significant and cost-effective contribution to meeting resource need. It relies heavily on increased development of wind power and gas-fired generation. And we had concluded that adding new coal resources at this time is not in the best interests of our customers, even before Washington adopted a performance standard in May of 2007 that effectively bans development of new coal generation resources without carbon capture and sequestration. The new state law supports our conclusion that new coal resources would be too risky to develop at this time.

PSE faces significant resource acquisition needs in the coming years. At the same time, concern about greenhouse gas emissions and climate change is becoming a permanent part of the landscape of utility planning, which profoundly alters the risk profile of certain supply options. Increasing competition for available resources and technical expertise is also driving up projected portfolio costs. And finally, the number of viable resource alternatives, especially renewable resources, is far more limited than we would like. It is now clear that to fulfill our responsibilities, we will need to think and act creatively to obtain all the renewable resources we require.

This document explains how PSE developed the lowest reasonable cost portfolio for meeting our customers' growing resource needs. It describes key data and assumptions. It presents the rigorous quantitative analysis we used to assess risk and test possible portfolio combinations against scenarios that depict different futures that may develop over the 20-year planning horizon. It also describes the qualitative analysis we applied. Quantitative analysis alone is insufficient to fully describe current or future market realities. So, we incorporate our commercial experience, understanding, and close observation of developing market trends into our considerations as well.

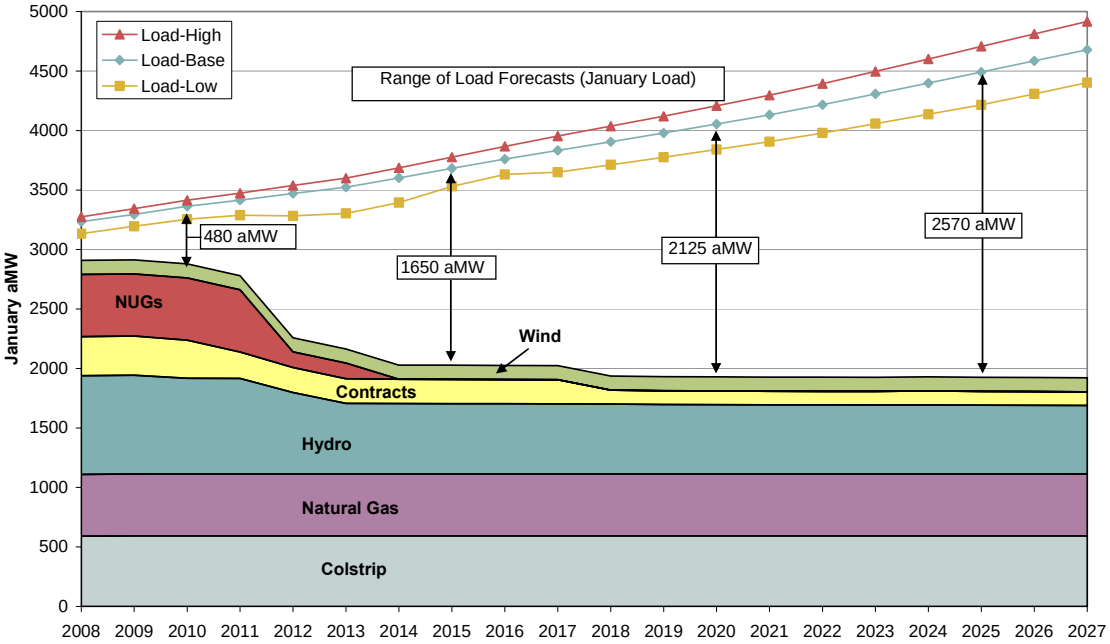
Public participation played an important part in the development of this resource plan. Stakeholder meetings generated healthy debate, suggestions, and practical information that shaped both the way we constructed our analysis and the judgment we applied to the analytical results. We value this stakeholder relationship highly, and look forward to shaping the energy future of Washington state together.

I. Resource Need: The Challenges We Face

Electric Resource Need

The combination of economic growth and expiring supply contracts means that PSE faces large electric resource needs in the years ahead. To meet the projected electric demand of our customers, we will need to replace, renew and acquire nearly 700 average Megawatts (aMW) of electric resources by 2011, more than 1,600 aMW by 2015, and 2,570 aMW by 2025, as Figure 1-1 below illustrates. This is the equivalent of adding enough electricity to power the city of Seattle for the next 20 years.

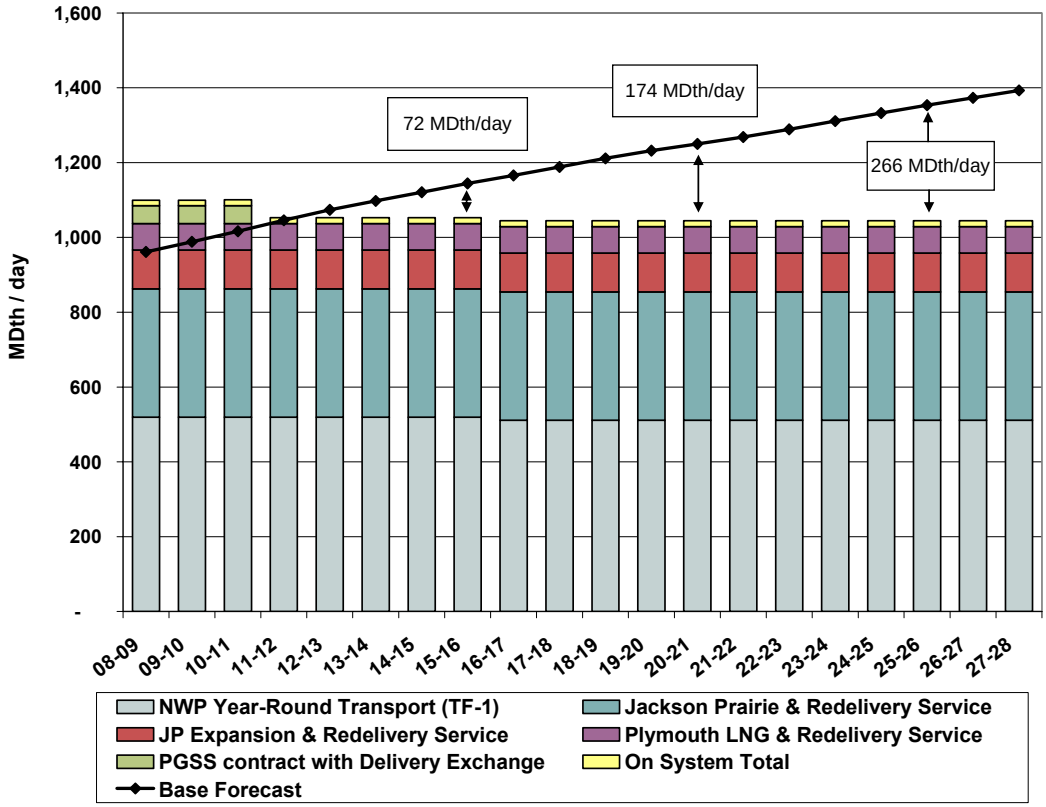
Figure 1-1
Electric Resource Need: Comparison of Projected Loads and Existing Resources



Resource Need for Gas Sales Service

PSE's retail natural gas resource need is also growing due to increasing demand and expiring contracts, but more gradually than electric needs due to the nature of the contracts. Although several agreements with Northwest Pipeline expire in coming years, the Company has unilateral rights to terminate or continue the contracts. Only one resource in our long-term retail natural gas portfolio terminates entirely. We currently have sufficient resources to meet projected peak-day requirements until the winter of 2011-2012.

Figure 1-2.
Gas Resource Need: Comparison of Projected Loads with Existing Resources

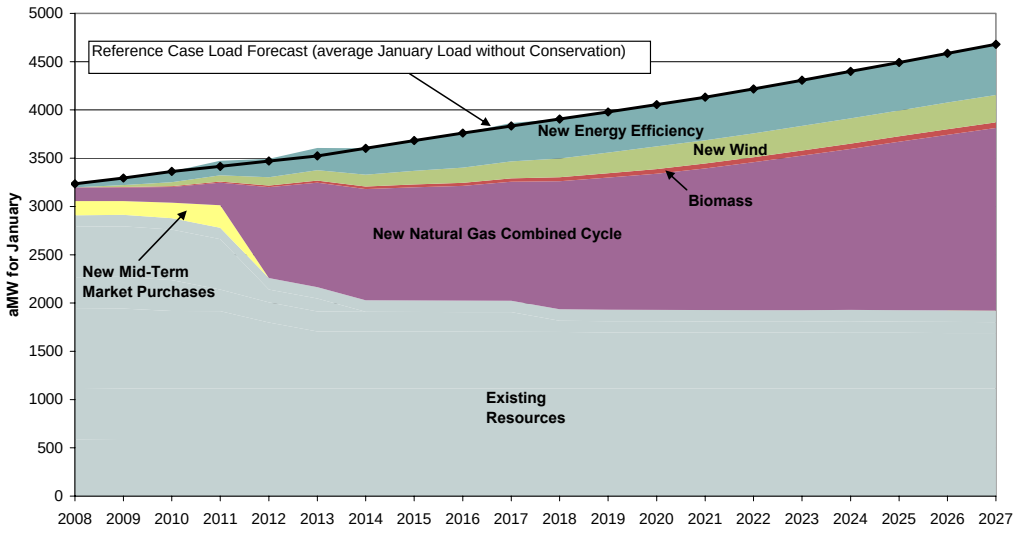


II. Meeting Electric Needs

Growing greener: more energy efficiency, more wind, and more natural gas-fired generation.

PSE's extensive analysis indicates that the portfolio shown below in Figure 1-3 is the lowest reasonable cost long-term resource strategy to pursue to meet our customers' growing demand for electricity. This strategy employs aggressive increases in demand-side resources (primarily energy efficiency), aggressive acquisition of wind resources in order to meet renewable portfolio standards, and gas-fired generation to make up the balance of energy needs that cannot reasonably be met through demand-side and renewable resources. In this plan, the "coal question" is largely put on hold until carbon sequestration becomes commercially viable.

Figure 1-3
Preferred Electric Resource Strategy, 2007 IRP



January Energy Additions aMW—Lowest Reasonable Cost Portfolio				
	2008	2015	2020	2027
DSM/Energy Efficiency	36	314	432	524
Wind	0	140	235	284
Biomass	0	29	49	59
Gas CCCT	142	1172	1410	1893
PBAs	148	0	0	0

January Capacity Additions MW				
	2008	2015	2020	2027
DSM/Energy Efficiency	36	314	432	524
Wind	0	550	921	1,112
Biomass	0	34	57	69
Gas CCCT	149	1,234	1,484	1,992
Duct Firing	20	167	200	269
SCCT	0	0	175	441
PBAs	148	0	0	0

Why not coal?

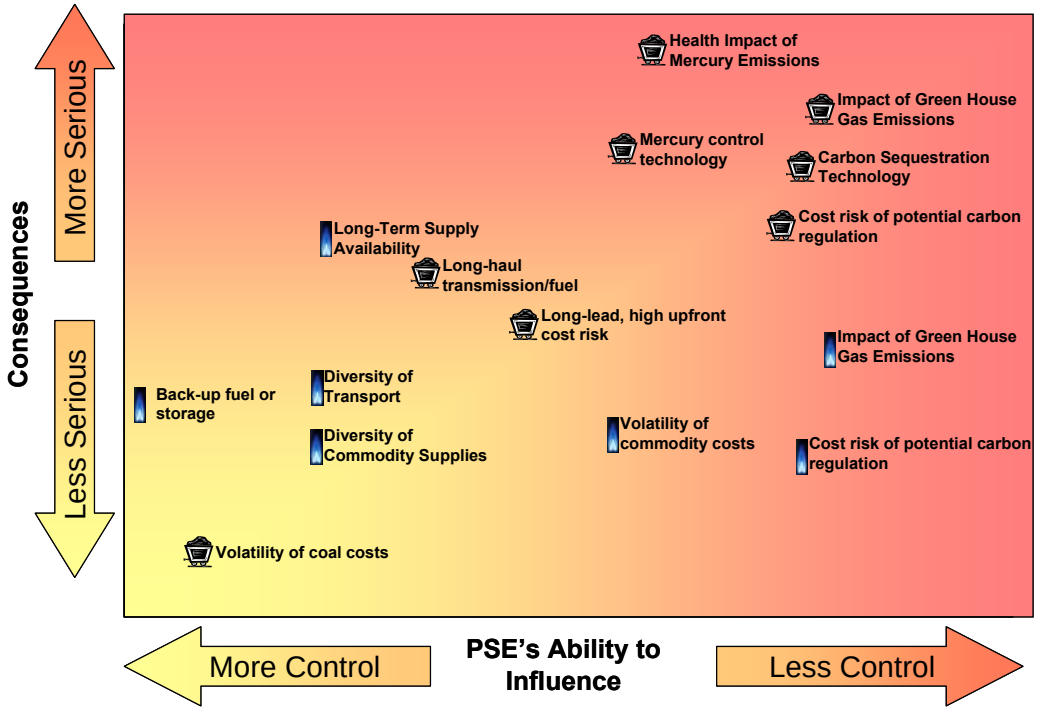
Previous PSE resource plans suggested we should consider development of new coal resources to come online in approximately 2016. Since the 2005 resource plan was developed, however, market, regulatory, and legislative conditions have changed significantly. Activity at both federal and state levels suggests that cost consequences for the emission of carbon dioxide (CO_2) are likely in the future. Conditions have changed even since modeling for this plan began in October of 2006, as mentioned above, with Washington state adopting a new law in May of 2007 that bans new coal resources unless the CO_2 can be sequestered. Mercury emission standards are also becoming far more stringent, pushing the limits of technology. Mine mouth coal projects have no existing transmission solutions to the Interstate-5 (I-5) corridor. Transmission solutions are multi-billion dollar undertakings. The estimated cost of permitting, constructing, and operating coal plants has increased enormously. Simply stated, the commercial viability of coal resources has grown highly uncertain.

PSE's quantitative analysis supports the conclusion that the risk-reward relationship for coal is untenable at this time. Across the different planning scenarios we evaluated, addition of some mercury-emission-controlled coal late in the planning horizon was found to be marginally cost competitive in some futures and high cost in others. The results are so close, however, that one must be cautious about drawing conclusions based solely on the numbers. Our quantitative analysis highlights that carbon sequestration technology is key if coal risks are to be mitigated. At this time, permanent deep well geological sequestration of CO_2 is not a proven technology, nor is there a reliable estimate of when such technology may become commercially viable. Without commercially viable CO_2 sequestration, a reasoned balancing of costs and risks prefers gas-fired generation over coal. That is, if we constructed a coal plant without sequestration capabilities and found ourselves in a "green world" environment of high CO_2 costs, the negative economic consequences would be greater than if we constructed natural gas generators and found ourselves in a low-CO_2-cost future.

The qualitative considerations with respect to coal are an important component of this reasoning. Risks posed by coal appear to be more significant and less controllable than the risks of relying on more natural gas at present. Coal-fired generation poses potential risks to health and human welfare with mercury emissions and it emits twice the CO_2 of natural gas-fired generation; also, cost risks associated with impending future environmental regulations are significant with coal, such as potential legislation mentioned above that would prohibit utilities in Washington from acquiring coal resources

unless CO_2 can be sequestered. There are clear risks as well with natural gas. At present, the kinds of risks posed by natural gas-fired generation appear to be less serious and more manageable than coal-fired generation risks. Figure 1-4 provides a graphical representation of the qualitative risk tradeoffs of coal versus natural gas-fired generation.

Figure1-4
Coal and Natural Gas: Comparison of Risks and Consequences



Available Alternatives

Energy efficiency, wind, and natural gas are the primary, commercially available resources that PSE can choose to meet future customer needs.

Energy efficiency. Energy efficiency is the primary component of a category called demand-side resources, which includes technologies like distributed generation and

demand response. These resources enable us to make less energy do the same amount of work. Across all the planning scenarios tested, aggressive investment in demand-side resources was found to be cost competitive. The targets represent a significant increase over current program levels, to 28 aMW annually from 20 aMW.

Wind. Renewable portfolio standards recently established by Washington state require that the portfolios of utility providers contain an increasing proportion of renewable resources. For our region, renewables means wind, as it is the principal alternative capable of producing utility-scale generation. PSE developed, constructed, and began producing wind-generated power at our Hopkins Ridge and Wild Horse facilities even before the new standards were established. Competition for all wind resources will be fierce as a result of state requirements and global competition for resources. Recent action by the California Energy Commission to allow California utilities to acquire renewable resources at the Mid-C trading hub adds a significant competitor for northwest utilities. Accordingly, PSE will have to adopt an aggressive acquisition model to secure them.

Natural gas-fired generation. Natural gas becomes the lowest reasonable cost resource that is available in large enough quantities to meet base load and intermediate needs without proven carbon sequestration technology. This plan demonstrates that at this time natural gas is a better alternative than coal for meeting base load energy needs. There are several challenges with natural gas, such as diversity and security of supply, long-term availability, and demand-pull price risks. However, we judge such risks somewhat more manageable than coal risks.

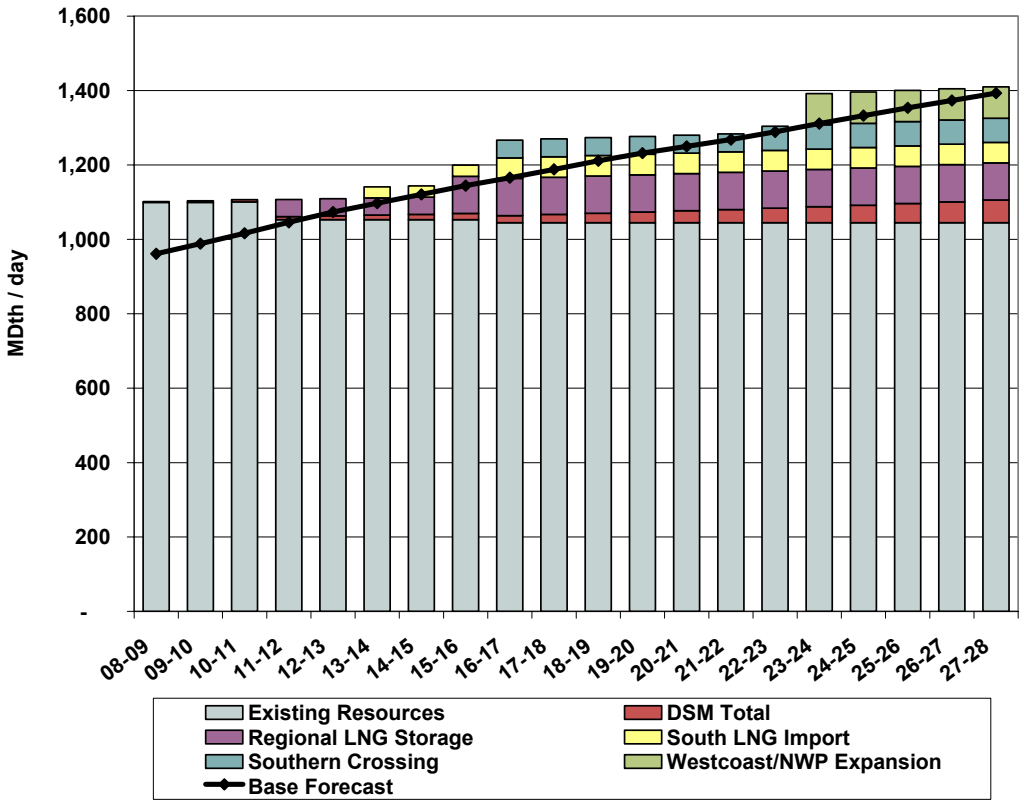
Other alternatives. Some biomass generation is included in the lowest reasonable cost portfolio strategy. Solar, geothermal, wave and tidal resources, however, remain largely research and development activities that merit ongoing interest and support; while they are capable of producing electric generation, they trail wind in their technical and commercial feasibility by at least a decade and perhaps much longer.

III. Meeting Gas Need

Long-term diversification is a goal.

PSE's gas resource strategy is geared toward long-term resource acquisition.

Figure 1-5
Recommended Gas Resource Additions



Winter Capacity Additions (MDth) - Reference Case Portfolio				
	2008	2015	2020	2027
DSM/Energy Efficiency	2	17	32	61
Regional LNG Storage	0	100	100	100
South LNG Import	0	30	55	55
Southern Crossing Pipeline	0	0	48	65
Westcoast/NWP Expansion	0	25	25	107

Evolving market conditions are pushing PSE to become more reliant on gas supplies originating in northern British Columbia. Seeking ways to diversify away from this concentration is important. The lowest reasonable cost resource strategy includes increasing our investment in gas demand-side programs, and seeking both liquefied natural gas (LNG) alternatives and opportunities to secure transportation and supplies from Alberta. In the early years of the 20-year planning horizon, we will investigate the possibility of participating in development of the regional infrastructure needed to make LNG a viable supply.

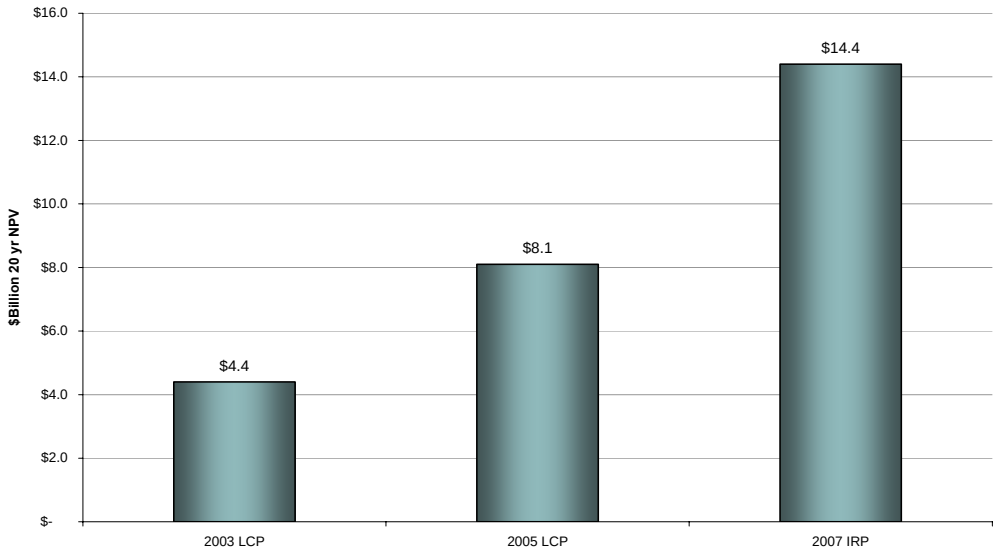
Development of facilities to support imported LNG in the Northwest is active, but outcomes are still uncertain. Even if such facilities are constructed, the role of LNG in Pacific Northwest markets is not clear in the face of growing global demand and competition for LNG. While a welcome source of supply diversity, the prices, terms, and conditions of imported supplies will determine whether LNG will be an appropriate addition to the long-term gas portfolio. PSE will continue to actively monitor LNG development prospects and participate when and where appropriate.

IV. Key Concerns

1. Future portfolio costs are rising significantly.

Projected fuel and construction costs have increased dramatically since PSE published its 2003 Least Cost Plan. As figure 1-6 below demonstrates, the net present value of the incremental 20-year portfolio cost has more than tripled in the past five years.

Figure 1-6
Rising Incremental Portfolio Costs



Long-term portfolio cost has more than tripled since 2003 LCP. Key drivers:
-Capital costs up by 44 - 76% depending on resource;
-Gas prices up 85%

Two key factors are driving this increase: the all-in cost to complete new generation projects, and natural gas prices. With regard to all-in costs, PSE has been in the market making electric generation acquisitions for the past five years. We have been involved in extensive discussions with independent developers, vendors of key project components, and firms which provide engineering, procurement, and construction services. We have also acquired two wind projects in the mid stages of development and permitting, and negotiated contracts to design, build, and transfer them to us. We have also purchased

two gas-fired combined-cycle projects and have had independent developers update estimates of the so-called "overnight cost" of building such projects from scratch. Two findings are abundantly clear: costs have risen substantially, and it's virtually impossible today to get a reasonable "hard money" quote and firm delivery schedule to build a project of any significant size. These insights, combined with certain cost estimates published by industry groups, inform us about the real-world challenges of permitting and constructing resources today. This knowledge is applied to our planning assumptions. Accordingly, we find that the all-in cost of gas-fired combined cycle units has increased about 44% relative to the 2003 Least Cost Plan, the all-in cost of wind generation has grown by about 76%, and natural gas prices in our reference case have risen approximately 85%.

As coal has evolved as a less favored fuel alternative in the United States due to its environmental characteristics, pressure on natural gas prices increases. Competition for all available resources and the technical expertise required to place them in service is intensifying, supporting upward cost pressure throughout the resource supply chain.

2. The renewables challenge is formidable.

An estimated 4000 MW of additional wind generation will need to be acquired and placed in service by 2019 in order to meet Washington state's renewable portfolio standard.[1] Wind will necessarily supply the bulk of the resources used to meet the requirement because wind has proven its ability to produce utility-scale power, because of the time it takes to fully develop projects, and because of the legal deadline established.

As discussed above, Oregon appears poised to adopt an even more aggressive renewable portfolio standard that will add greatly to the demand for renewable resources in the region. And California utilities have a huge appetite for renewable resources, and the state recently liberalized its procurement rules to allow California entities to compete at the Mid-C trading hub to acquire renewable resources based in the Pacific Northwest.

[1] The estimated 4000 MW of wind power was derived by applying a 30% capacity factor to the CTED estimate of 1185 aMW that will be needed by 2020, see http://www.cted.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&ItemID=4109&MId=863&wversion=Staging

PSE must acquire additional renewable resources to meet state standards within the context of this regional rush. Translated into practical terms, this means PSE and its development industry partners will need to place one wind project into commercial service approximately every 18 months beginning in 2010, and do so in an extremely crowded marketplace.

The renewables challenge is enormous—not just for PSE, but for all utilities serving the state. To meet it will require a coordinated effort on a scale we have not seen before in the Northwest. Utilities, developers, key vendors, transmission providers, and regulators will need to engage in creative partnerships if we are to align critical processes to achieve the goals established for us by the people of Washington.

3. Addressing environmental impact will generate big changes in the future.

Concerns about climate change and the environmental impacts of energy production are becoming a permanent part of the utility planning landscape.

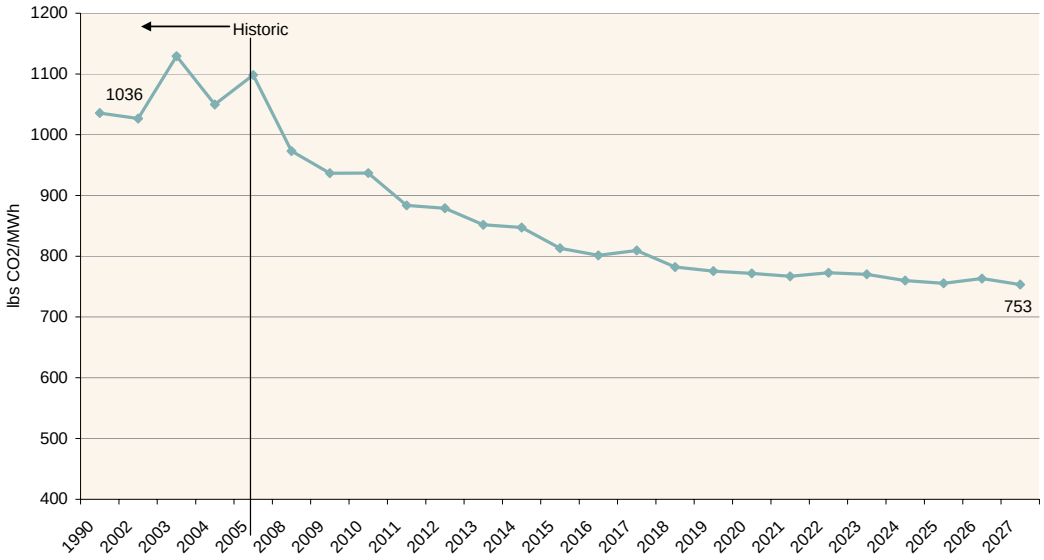
Since publication of our last long-term resource plan, the momentum for addressing these concerns via regulatory change has increased dramatically. Washington voters approved a renewable portfolio standard that requires utilities to acquire all cost-effective energy efficiency resources and meet 15% of load from renewable resources by 2020, joining 21 states with similar laws. The State Department of Ecology has initiated a rulemaking on mercury emissions that may make it impractical to build any form of coal generation in Washington. Finally, the state legislature passed and the governor signed a new law that caps emissions from new generating resources, regardless of where they are located, at 1,100 lbs. of CO_2 per megawatt hours (MWh). Given carbon sequestration is not commercially viable, this will prevent Washington utilities from acquiring new coal resources via ownership or long-term contracts. Additionally, this law requires the state to reduce total greenhouse gas emissions to 1990 levels by 2020.

PSE has been engaged in mitigating the long-term environmental impacts of meeting our customers' growing energy needs for many years. We have long been engaged in the aquatic and terrestrial management issues associated with hydro power generation. We have been a leader in designing avian protection programs around our electric transmission and distribution systems. We were early and effective adopters of energy

efficiency measures, and we are regional leaders in the development of renewable wind power. In response to concerns about global warming, we have adopted a Greenhouse Gas Policy statement that is available on our website and in the Environmental Concerns appendix to this document. Our intent is to partner with our stakeholders, including customers and regulators, to meet the environmental challenges that confront us all.

The lowest reasonable cost portfolio identified in this IRP is the least carbon intense that has appeared in a PSE resource plan. The following chart illustrates that we expect the carbon intensity (CO_2 produced per megawatt hour of load) of meeting our customer's energy needs to decline significantly over time. The chart also illustrates the significant reduction in carbon intensity relative to the least cost portfolio from our 2005 plan. As newer, cleaner technology comes online over time, our carbon intensity will decline further. A comprehensive overview of climate change and greenhouse gas issues is included in the Environmental Concerns appendix to this plan.

Figure 1-7
PSE Carbon Dioxide Emission Rates Declining by 27% from 1990 Levels



By the end of the 20 year planning horizon, the Lowest Reasonable Cost portfolio will reduce the CO2 footprint passed on to our customers by 27% relative to 1990 carbon emission intensity levels.

V. Conclusion

PSE serves more than half of the people who live in Washington state. This IRP seeks to balance the growing energy needs of the region with concerns about the environmental impacts produced by power generation. It seeks to assess the risks and costs of different alternatives, and weigh them against different ways the future may develop. Its goal is to identify the lowest reasonable cost resource strategy that will meet our customers' needs.

The IRP provides useful guidance to the Company's demand-side and supply-side resource acquisition processes; however, it is a guide, not a prescriptive list for resource acquisition. It is based on high-level, generic assumptions about future market conditions and resource costs. Individual resource acquisitions must rely on judgment informed by specific information about specific resources. Such decisions will be informed by the strategy and the analytical and decision-making processes described here, but governed by actual market conditions.