Department of Commerce
Innovation is in our nature.

Washington State Electric Utility Resource Planning – 2012 Report

December 2012
Report to the Legislature
Rogers Weed, Director

Acknowledgements

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Introduction

Background

Washington State enjoys electricity service provided by more than 60 utilities serving residential, business, and industrial consumers. In order to meet the growing electricity needs of consumers, utilities estimate the amount of power needed and develop plans to meet demand. The 2006 utility resource planning law 19.280 RCW,[1] requires all state utilities to develop and update Resource Plans (RP) or Integrated Resource Plans (IRP) and provide them to the Department of Commerce (Commerce) every two years. Commerce then reports findings to the Legislature. This is the third such report; prior reports were submitted in 2008 and 2010.

This report refers to resource plans in the generic sense. The two types of resource plans differ in that the RP is very short and used by utilities having only one supplier of power resources (usually the Bonneville Power Administration). The IRP, by contrast, is quite complex and must include a number of requirements specified by law. IRPs are generally required for all utilities with 25,000 or more customers while smaller utilities can write either IRPs or RPs. Most utilities with a customer base under 25,000 write RPs.

Purpose of this Report

While utilities use resource plans to characterize their strategies for meeting customer electricity needs, the state uses the aggregate information to show electricity requirements and resource commitments for Washington as a whole. The information in this state resource plan may be considered a collection of snapshots representing each utility's perspective of loads and resources made at the time their plan was developed. As conditions change, so may perspectives.

This report summarizes the electricity loads and resources reported by Washington's utilities in their 2012 reports to Commerce, and compares them to reports of previous years. Resources proposed to meet load are categorized by generating fuel type and source type (such as contract or market). An imbalance of loads and resources may indicate either a resource surplus or deficit, and this will also be identified.

The information collected for this report is limited to the identification of loads and resources and their associated aggregate quantities. It does not attempt to evaluate specific goals or outcomes for resource acquisition strategies used by utilities. In future work, Commerce intends to analyze those topics through careful review of utility resource plans and in consultation with utility power resource planners.

This report provides information on utilities' energy efficiency and renewable energy resources. However, it does not analyze issues related to the energy efficiency and renewable energy requirement of, or compliance with, the Energy Independence Act (RCW 19.285). [2]

[1] http://apps.leg.wa.gov/RCW/default.aspx?cite=19.280

[2] Reports are available at http://www.commerce.wa.gov/Programs/Energy/Office/Utilities/Pages/ResourcePlans.aspx.

Highlights

One of the more significant findings of this report is the decline of estimated aggregate electricity surplus for Washington State. Previous planning cycles have shown aggregate surplus between 8 and 14 percent of load across the 10-year planning horizon. This year, the aggregate drops down to 4 percent after only five years, and 1 percent in 10 years.

The greatest contributing factor in the decline in estimated surplus is the lack of specificity of the commitment to future resources described in Puget Sound Energy's (PSE) IRP. Its deficit ranges from 331 to 465 average megawatts over the next 10 years. This represents nearly 12 to 15 percent of its load and 3 to 4 percent of the state's load. PSE is the largest utility in Washington State and, with more than 1 million customers, they serve 26.38 percent of the state's total electricity load. PSE stated it will take advantage of the "best resource opportunities and best prices that present themselves in the market."[3] PSE also stated an interest in obtaining new transmission to meet future need, and recognized the presence of new wind power in the region and advances in natural gas technology, all with an overriding interest in finding the best prices.

A handful of other utilities also show deficits in committed resources, leading to a negative resource-to-load balance. However, by virtue of their comparatively lower loads, their singular impact is less significant than PSE's.

Three observations can be made about the decline in surplus and the estimated resource deficits for some utilities across the 10-year planning horizon:

1. Utilities are less certain of the specific sources they will tap for future power acquisitions.
2. From a planning perspective, estimated resource surplus is lower than in past years.
3. The way Commerce currently collects information for this report is not fully capturing anticipated resource options for meeting uncommitted need.

Utility resource plans reflect perspective from a snapshot in time looking forward. The utility planning process is dynamic and flexible. It is impacted by prices, the consumer, weather, the economy, population changes, the state and national political environment, and other factors. Additional study will be needed to gain broad understanding of the future electricity market for Washington State utilities.

The Northwest Resource Adequacy Forum has found that the regional load and resource balance has tightened, potentially due to loss of imports from California.[4]

Hydropower, natural gas, and future conservation and efficiency are three enduring resource categories for our state. Hydropower continues to be a reliable and widely owned and contracted resource. Competitive pricing combined with new technologies continue to make natural gas a consistent choice in meeting load. Conservation and efficiency has maintained its place in the mix as the resource of choice, boosted by the state Energy Independence Act,[5] which mandates adherence to conservation and efficiency targets.

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[3] http://pse.com/aboutpse/PseNewsroom/NewsReleases/Pages/PSE-Unveils-2011-Update-to-IRP.aspx

[4] http://www.nwcouncil.org/energy/resource/default.asp

[5] Energy Independence Act, Chapter 19.285 RCW, http://apps.leg.wa.gov/rcw/default.aspx?cite=19.285

Utility Reporting

The reporting process was opened the third week of June and closed the first week of September 2012. Of the 59 utilities required to report, all but one (the city of Ruston) submitted resource plan cover sheets.[6]

Some utilities had already published and posted resource plans prior to the opening of the reporting process while others completed theirs during it. The legislation requires the development and provision of both a resource plan and a cover sheet that summarizes the more detailed plan. While the law calls for a new plan every four years and a progress report every two years since the first plan, the planning process has taken on a life of its own. Many of the larger utilities are drafting new plans every two years, while many of the smaller utilities are completing and providing only the cover sheet.

Cover sheets contain the core elements essential to a plan, and include a three-interval series of data across a 10-year planning cycle. The three intervals include the base year, which typically reflects actual loads and resources for a year that is nearly or already completed. The next two intervals reflect projected load and resources outward for five and then 10 years. Commerce combines cover sheet data to assess the status of power needed versus resources anticipated for the whole state. Plan narratives are provided at varying levels of detail and rigor, and offer some insight into the planning challenges and opportunities facing utilities.

Of the 17 utilities with more than 25,000 customers, four submitted RPs instead of IRPs. The four utilities are full-requirements customers of BPA (solely reliant on BPA for power) and can choose between IRPs and RPs. They are Inland Power and Light, Clallam PUD, Peninsula Power and Light, and Mason PUD #3.

Three utilities located in Idaho that serve some Washington customers are exempted from taking part in utility resource planning. The utilities, combined, serve approximately 1,050 customers, or 0.03 percent of Washington electricity consumers. They are Clearwater Power Company, Kootenai Electric Cooperative, and Northern Lights Electric Company.

Changes occurred this year in the tracking of BPA resources. The issues centered on how to categorize the new tiered rate structure adopted by BPA and established in long-term contracts with the state's consumer-owned utilities in October 2011. With the assistance of utilities, categories were developed that set apart BPA's standard portfolio ("tier 1") from resources acquired to meet needs above the "high water mark" agreed upon through the BPA tiered rate methodology.[7]

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[6] With a population of 750, Ruston's load is fully supplied by the city of Tacoma. Their loads and resources were estimated by Commerce based on a combination of their 2011 Fuel Mix Report and their population rate of change. See their cover sheet in the Appendices for more information.

[7] Contract High Water Mark (CHWM) is part of the utility power sales contract with BPA. It specifies terms under which a customer may purchase power at the lowest preference rate. Utilities may only purchase "tier 1" power up to their average share of the BPA system as of a fixed date. When the CHWM is reached, power purchased after this point is associated with a different rate following BPAs tiered rate methodology.

Adding complication was a feature of the tiered rate structure that allows for third party power purchases from the market or from BPA along with the optional receipt of renewable energy credits (RECs). While the RECs do not affect the load or resource status, acquiring RECs is part of some utilities' power purchasing strategies for meeting requirements of the Energy Independence Act. Small utilities in Washington, for example, that are not subject to the Renewable Portfolio Standard (RPS) still received a share of BPA's wind resources in the form of RECs, which they could then sell to utilities that were subject to the RPS. New categories had to be developed to account for these types of transactions.

Peak demand is not reviewed in this report and will be part of future work by Commerce.

Washington State Utility Resource Plan 2012 Summary Data

Reading Charts and Tables

The data is described in terms of the three intervals used in the 10-year planning cycle. The first interval is base year. It is not an estimate. It consists of actual loads and resources primarily from either 2010 or 2011 (utilities were given the option to choose their base year). The next two intervals, five and then 10 years outward, are estimates projecting loads and resources anticipated in the future. Units of measure include average megawatts (aMW), defined as a one megawatt of capacity produced continuously over the period of one year or 8,760 megawatt hours.

While some utilities showed a negative resource-to-load balance, overall utilities reported firm resources that exceed anticipated need. The surplus narrows toward the end of the 10-year cycle.

Unadjusted Load Forecast versus Adjusted Load and the Role of Conservation

For each utility, the cover sheet summarizes the quantity of electricity needed (load), the quantity of electricity for which there is known commitment (resource), and the difference between the two, demonstrating a positive or negative balance (surplus or deficit). The load forecast component of resource planning might treat conservation in one of two ways: as a resource toward meeting demand or as an offset to the amount of electricity needed.

1. **Load and conservation as a resource.** When resource planning treats conservation as a resource, it takes on a positive value along with other energy resources. In this case, load, the estimate of electricity needed, is a reflection of the gross energy required. This is considered as load "before conservation," prior to reduction resulting from the application of conservation and efficiency measures, and is referred to in this report as unadjusted load.
2. **Load and conservation as an offset.** When treated as an offset to load, conservation does not appear as a resource and is instead removed (netted out) from the gross amount of electricity needed. The result is a load "after conservation," referred to as "adjusted load."

All things being equal, the first treatment, unadjusted load, results in a higher load estimate, representing "true" demand. The second treatment, adjusted load, results in a lower load estimate, reducing the appearance of demand by removing the impacts of conservation.

Conservation is not reported in the base year in order to be able to measure future additions to conservation and efficiency, not including carryover. Therefore, the base year load in both the unadjusted and adjusted scenarios *is* adjusted, since load and resources reported represent actual energy resources used in meeting actual and not estimated need. Conservation and efficiency are referred to it as future conservation and efficiency because our accounting only addresses the forecasted amount, not the actual base year conservation that occurred.

Figure 1 demonstrates resources in excess of adjusted load resulting in a surplus of energy. Toward the middle of the planning horizon, the surplus narrows. Looking at the gross electricity needs of the state – the unadjusted load – future conservation is meeting between 5 and 8 percent of forecasted need.

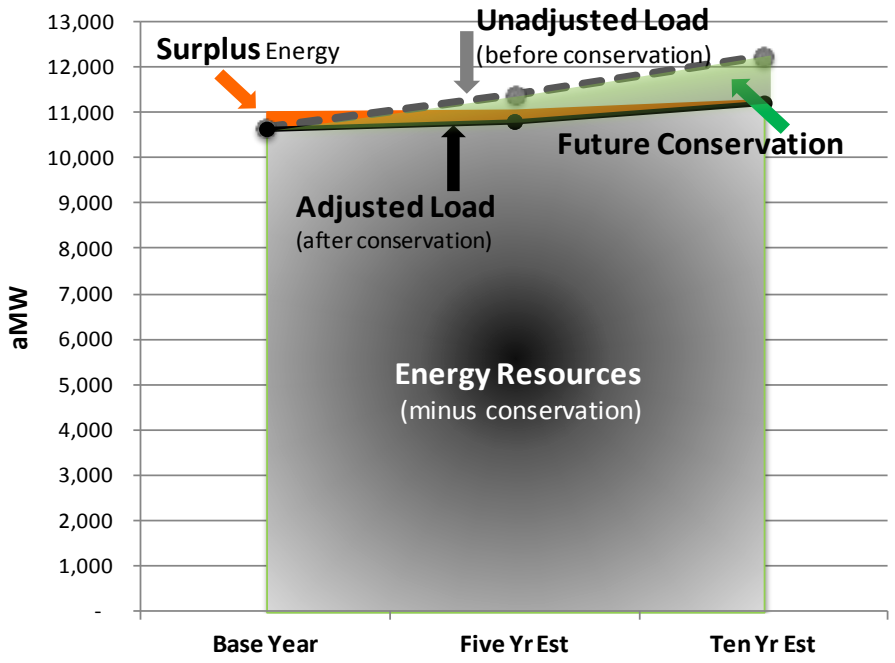

Figure 1: Aggregate load-resource balance and surplus in the current planning cycle. (Source W0027)

	Base Year	Five-Year Estimate	Ten-Year Estimate
Adjusted Load	10,657	10,822	11,229
Unadjusted Load	10,657	11,392	12,245
Resources	11,039	11,647	12,323
Conservation/Efficiency	0	570	1016
Surplus	382	255	78

Figure 2 (data for Figure 1.): Aggregate load-resource balance and surplus in the current planning cycle. (Source W0027)

See *Appendix A: Washington State Requirements and Resources*, the state's "resource plan cover sheet" created by combining all utility plan cover sheet data.

Washington State's Forecast of Rising Electricity Demand

While the trajectory of estimated demand is upward, the gross demand for the 2012 planning cycle is lower than both the 2008 and 2010 cycles (Figure 3). The estimate of how much power will be needed to meet customer needs is more modest from a planning perspective in this reporting cycle as compared to prior reporting cycles, even though population estimates continue to climb and level off. The percent change in load leads upward as noted below, but the relative quantity is lower than in previous cycles.

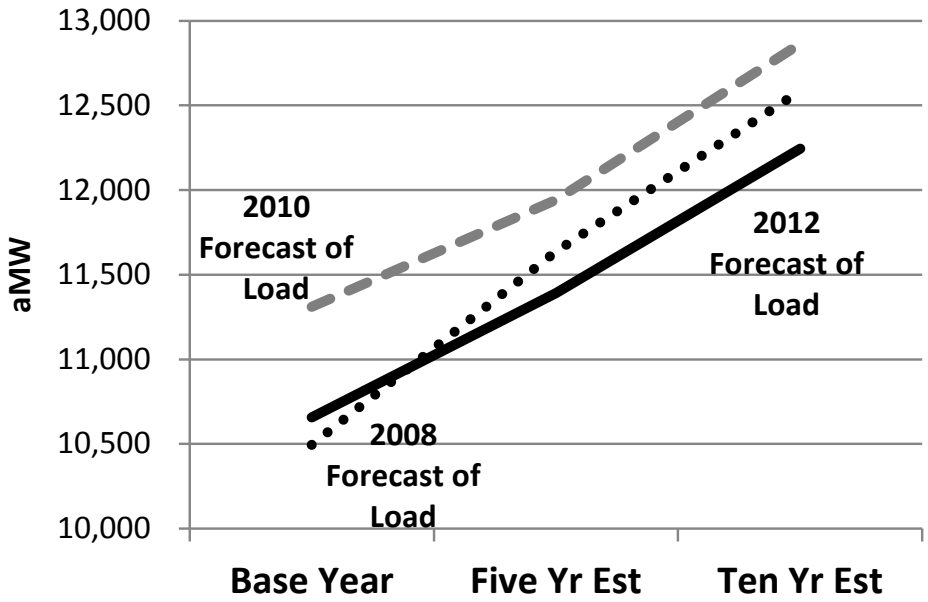

Figure 3: Electric Unadjusted Load (demand) as forecast by utilities in the three planning cycles (2008, 2010 and 2012) since the resource planning law was enacted. (Source: W0027)

A total of 3,218,595 customers are served by the 59 electric utilities that submitted resource plans. The population in Washington State is expected to grow by an average of 1.05 percent per year through 2022. Based on the combined electric utility load estimates, unadjusted load is rising slightly faster, at an average rate of approximately 1.4 percent per year through 2022 (Figure 4).

The recession and aggressive conservation over the last five years have contributed to the decline in expected load growth, i.e., aggregately the 2012 base year adjusted load estimate is lower than was forecast in prior planning cycles.

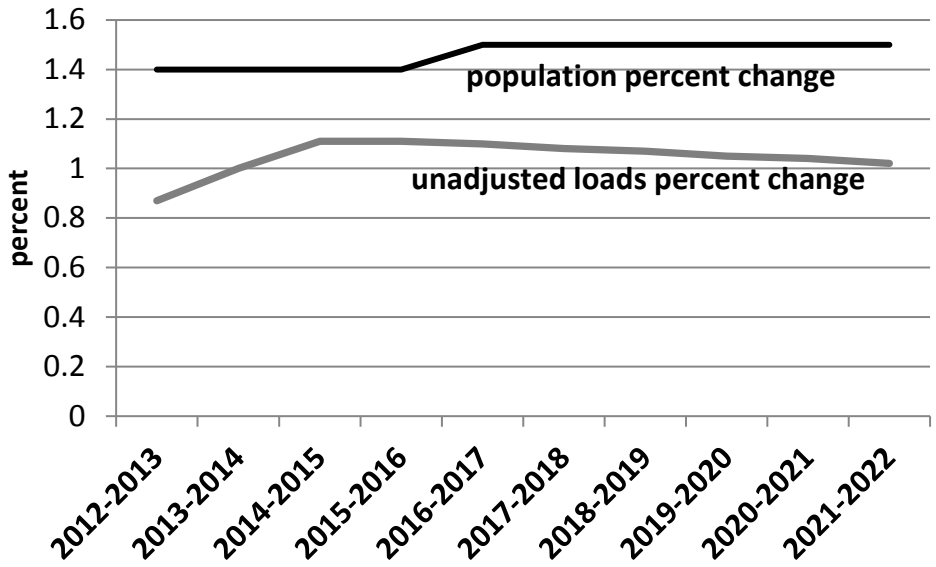

Figure 4: Comparing forecast load changes to forecast population changes. (Source: W0027)

Resources Overview

With forecasted resources, there is an upward slope, but an overall decline when compared to 2008 and 2010.

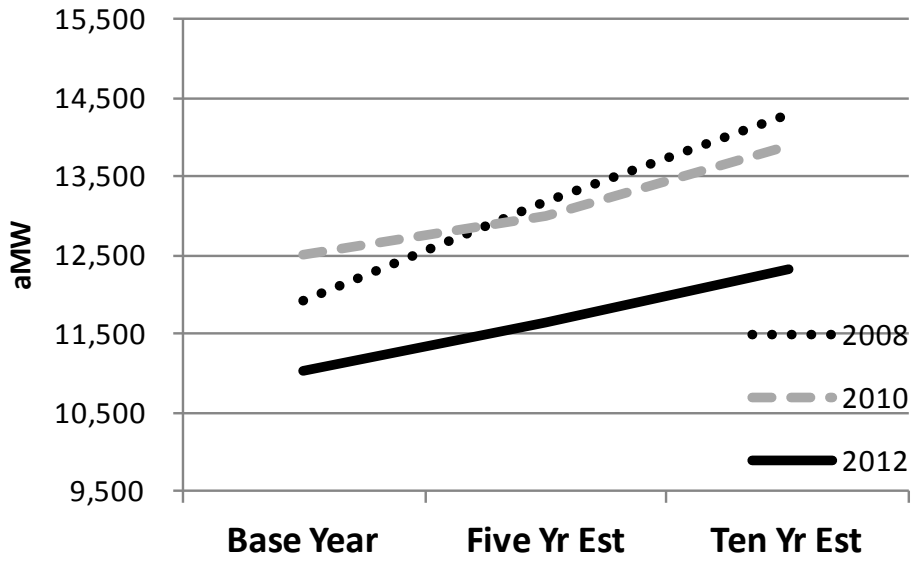

Figure 5: Commitments to resources as forecast by utilities in the three planning cycles (2008, 2010 and 2012) since the resource planning law was enacted. (Source: W0027)

Resources Intended to Meet Loads

Utilities can supply their customers using combinations of their own generating sources, through contracts with providers and generators, or by purchases from the spot market. Utilities reported resources by fuel or by method of purchase. The category "Other" includes spot market, contract, demand response, other renewables, and other. BPA is the federal resource contribution to the electricity supply in the state and is comprised of a mix of energy sources.

The top three resources utilities are planning to use to cover power needs over the 10-year planning horizon are BPA power, and utility-owned or contracted hydropower and natural gas (Figure 6).

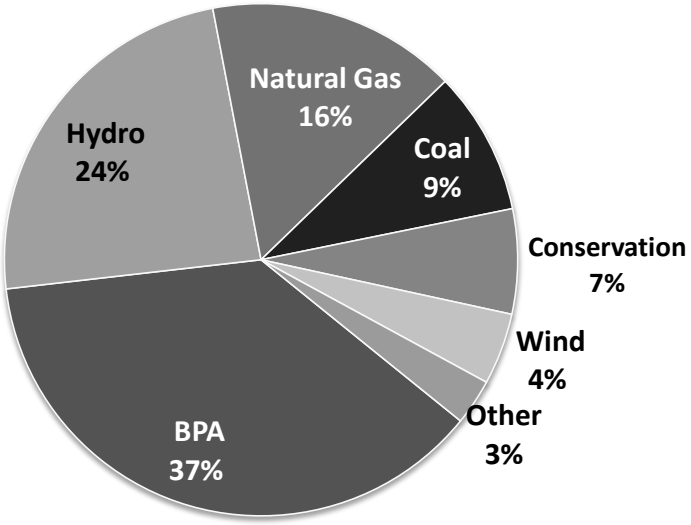

Figure 6: Resource commitment by order of magnitude, assessed by summing the resource categories for both the five- and 10-year intervals.

Future Compared to Current Resource Commitment

Figure 7 and Figure 8 show estimated resources added and estimated resources in decline, with the base year as a starting point. Each interval was assessed relative to the base year in order to compare future to current resource commitment.

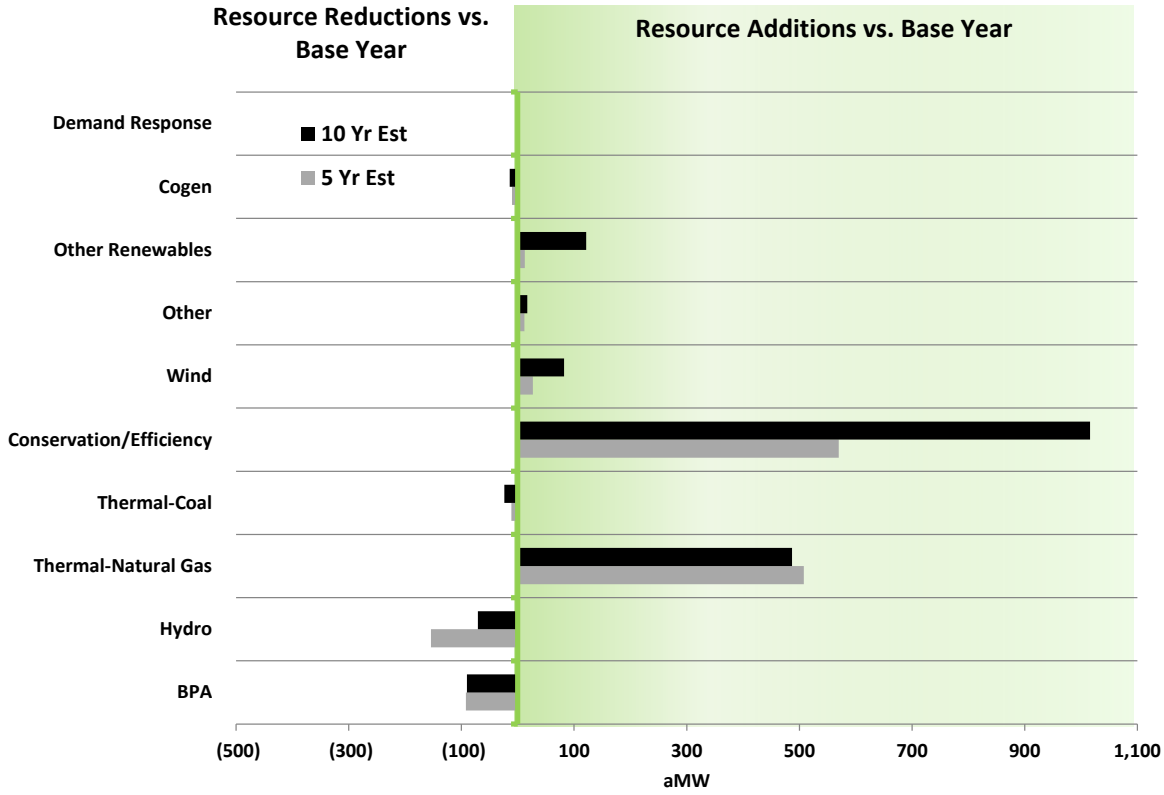

Figure 7: Resource additions and reductions compared to the base year per planning interval. (Source: W0027)

Resource Additions/Reductions	5 Yr Est (aMW)	10 Yr Est (aMW)
BPA	(92)	(90)
Hydro	(154)	(71)
Thermal-Natural Gas	508	487
Thermal-Coal	(11)	(24)
Conservation/Efficiency	570	1,016
Wind	27	82
Other	12	17
Other Renew ables	12	122
Cogen	(10)	(14)
Demand Response	2	3

Figure 8 (data for Figure 7): Resource additions and reductions compared to the base year per planning interval. (Source: W0027)

The summary of the resource plans tells what kinds of resources utilities are planning to acquire, but cannot summarize the resources that are available yet not chosen. A reduction in a given resource does not indicate that the resource itself is in decline. Commitment to the resource may not yet be fully realized in terms of the utility's load or the resource may be eventually exported, contracted-out, or sold on the spot market. Resource plans define electricity need and anticipate strategies to meet it, but the market itself will greatly influence the outcome of resource choices.

Conservation stands out as the resource of choice in our state, accounting for 55 percent of new resource additions, followed by natural gas with 35 percent. Utilities expect to add 204 aMW of non-hydro renewables, including wind and other renewables, as indicated by the aggregate 10-year forecast. Renewables account for 9 percent of new planned resources (Figure 9).

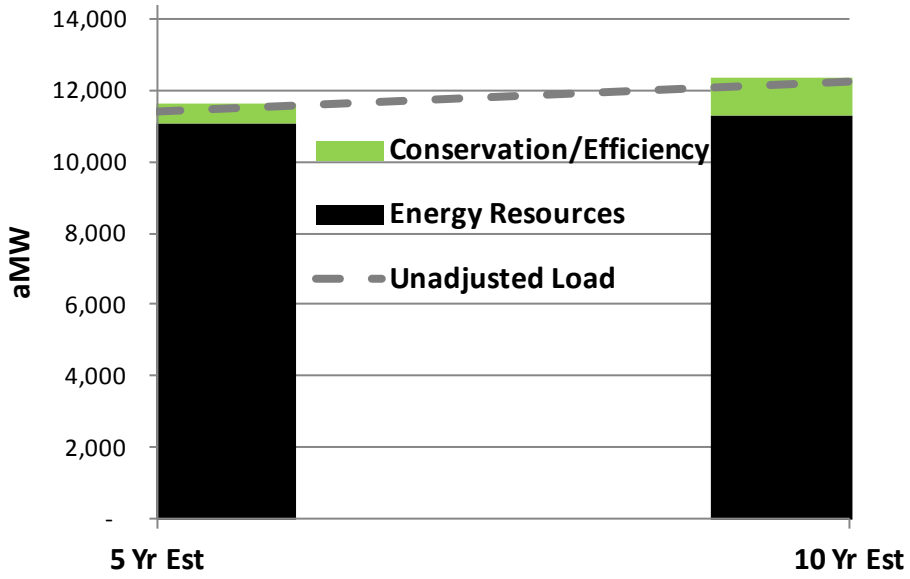

Figure 9: Conservation and efficiency as a resource. (Source: W0027)

More than 500 average megawatts of natural gas is added in the first estimate interval and, while the second interval declines in natural gas commitment, it continues to be near the 500 mark.

BPA and hydropower, both large contributors to Washington's resource lineup, show some decline in future commitment as compared to the base-year levels. Both of these resources are impacted by the status of utility contracts that may end at some point in the planning period. This may result in an apparent reduction in a resource commitment when, in actuality, a utility has simply not yet committed to a particular resource. Other factors contributing to this portion of the resource snapshot require additional review of individual utility resource plans.

The resource categories – imports, short-term contracts, long-term contracts and exports – have some features in common:

- All are in decline over the planning horizon.
- All in a position to expand or contract depending on market conditions.
- All are used by utilities to meet need that does not have a specific resource associated with it.
- On some level, they are expected to fluctuate in their use.
- They are more likely to be used for future unspecified needs, even though utilities with resource deficits did not identify them at this point.

Other resources, other renewables, demand response, and cogeneration each comprise less than 1 percent of the state's resource mix over the 10-year planning cycle.

Declining Estimated Surplus

Washington has historically had a surplus of power due, in part, to generous hydropower resources. Surplus may be perceived either as an oversupply of resources or as a shortfall of demand. In this planning cycle, some utilities' demand continues to rise while resources do not, demonstrating a degree of uncertainty in future resource commitment. The 2012 surplus estimates are more than 10 percentage points below the 2008 surplus estimates in both the five- and 10-year forecasts (Figure 10).

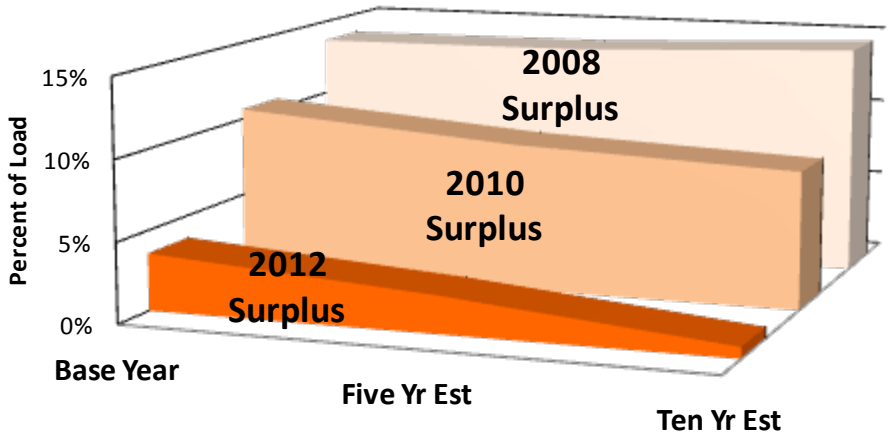

Figure 10: Declining estimated surplus. Surplus is calculated as a percent of forecast load. (Source W0027)

The declining surpluses in the five- and 10-year timeframes represent a lack of commitment to specific resources, but not necessarily a lack of resources. The cover sheet that utilities use to provide data for this report may fail to capture a utility's intent to commit resources to load in five or 10 years, when the utility has not yet made a clear decision about how to do so. In some cases, a utility's reported deficit could be remedied by designating additional, future resources as spot market purchases, for example, in lieu of firm contracts or ownership on identified resource types. This would better balance their forecast resources to forecast load and minimize the aggregate deficit, and will be considered in future iterations of the cover sheet.

It is not unusual for a utility to demonstrate some level of uncertainty in 10-year planning cycle. What is different about this year's reporting is the degree of uncertainty is greater than previous years, both in quantity and number of utilities reporting a resource deficit.

Appendix A: Washington State Requirements and Resources

Annual Energy (average megawatts)

Firm Requirements

	Base Year	5-Year Est.	10-Year Est.
Load	10,270	11,269	12,131
Exports	387	123	114
Total	10,657	11,392	12,245

Firm Resources

Resource	Base Year	5-Yr Est.	10-Yr Est.
Hydro	2,963	2,809	2,892
Conservation/Efficiency	-	570	1,016
Demand Response	-	2	3
Cogen	62	52	48
Wind	487	514	569
Other Renewables	35	47	156
Thermal-Natural Gas	1,389	1,897	1,876
Thermal-Coal	1,102	1,091	1,079
Long-Term Contracts	45	51	45
Short-Term Contracts	(2)	(50)	(25)
Other	72	84	89
Imports	285	71	66
BPA Tier 1 (RP)	1,328	1,361	1,365
BPA Tier 2 (RP)	-	29	53
BPA Other (IRP)	3,235	3,082	3,055
Market Purchase	38	38	36
Total Resources	11,039	11,647	12,323
Surplus (Need)	382	255	78

Appendix B: Utility Details

Electric Utility	Plan Type (IRP or blank for RP)	Ownership Class	Number of Customers	Subject to Energy Independence Act
Alder Mutual Light Co, Inc		Coop	286	No
Avista Corp	IRP	IOU	235191	Yes
Benton Rural Electric Assn		Coop	14926	No
Big Bend Electric Coop, Inc		Coop	8596	No
City of Blaine		Public	2965	No
City of Centralia		Public	10031	No
City of Cheney		Public	4800	No
City of Chewelah		Public	1298	No
City of Coulee Dam		Public	598	No
City of Ellensburg		Public	9344	No
City of McCleary		Public	1024	No
City of Milton		Public	3392	No
City of Richland		Public	25329	No
City of Sumas		Public	693	No
Columbia Rural Elec Assn, Inc		Coop	4659	No
Elmhurst Mutual Power & Light Co		Coop	13752	No
Inland Power & Light Company		Coop	36687	Yes
Lakeview Light & Power		Coop	11432	No
Modern Electric Water Company		Coop	9884	No
Nespelem Valley Elec Coop, Inc		Coop	1547	No
Ohop Mutual Light Company, Inc		Coop	4192	No
Okanogan County Elec Coop, Inc		Coop	3490	No
Orcas Power & Light Coop		Coop	14551	No
PacifiCorp	IRP	IOU	127613	Yes
Parkland Light & Water Company		Coop	4449	No
Peninsula Light Company		Coop	30806	Yes
Port Angeles City of		Public	11518	No
Port of Seattle		Public	1	No
PUD No 1 of Asotin County		Public	3	No
PUD No 1 of Benton County	IRP	Public	48197	Yes
PUD No 1 of Chelan County	IRP	Public	47636	Yes
PUD No 1 of Clallam County		Public	30440	Yes
PUD No 1 of Clark County	IRP	Public	185035	Yes
PUD No 1 of Cowlitz County	IRP	Public	48194	Yes
PUD No 1 of Douglas County		Public	15983	No
PUD No 1 of Ferry County		Public	3384	No
PUD No 1 of Franklin County		Public	24000	No
PUD No 1 of Grays Harbor Cnty	IRP	Public	41607	Yes
PUD No 1 of Kittitas County		Public	4391	No
PUD No 1 of Klickitat County		Public	12156	No
PUD No 1 of Lewis County	IRP	Public	31025	Yes
PUD No 1 of Mason County		Public	5127	No
PUD No 1 of Okanogan County		Public	20566	No
PUD No 1 of Pend Oreille Cnty		Public	8803	No
PUD No 1 of Skamania County		Public	5853	No
PUD No 1 of Wahkiakum County		Public	2414	No
PUD No 1 of Whatcom County		Public	1	No
PUD No 2 of Grant County	IRP	Public	46351	Yes
PUD No 2 of Pacific County		Public	17277	No

Electric Utility	Plan Type (IRP or blank for RP)	Ownership Class	Number of Customers	Subject to Energy Independence Act
PUD No 3 of Mason County		Public	32518	Yes
Puget Sound Energy Inc	IRP	IOU	1083378	Yes
City of Seattle	IRP	Public	400351	Yes
Snohomish County PUD No 1	IRP	Public	323460	Yes
Tacoma City of	IRP	Public	168286	Yes
Tanner Electric Coop		Coop	4441	No
Town of Eatonville		Public	1165	No
Town of Ruston		Public	495	No
Town of Steilacoom		Public	2823	No
Vera Irrigation District #15		Public	10181	No

Appendix C: Utility Cover Sheets

Alder Mutual Light Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	0.55	0.61	0.67
Resources:			
Future Conservation/Efficiency		0.01	0.01
Demand Response			
BPA Tier 1	0.55	0.61	0.67
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	0.55	0.61	0.67
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Asotin County PUD << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2012*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	5.29	5.39	5.59
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1			
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro-critical water	4.04	4.12	4.27
Wind			
Other Renewables	0.71	0.71	0.75
Thermal-Natural Gas	0.14	0.15	0.15
Thermal-Coal	0.40	0.41	0.42
Market Purchase-non BPA			
Other			
Total Resources	5.29	5.39	5.59
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval n/a (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Avista <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by: Avista Corp.

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2016**			**2021**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**
Loads	1,101.54	1,013.10	723.06	1,190.29	1,168.25	782.65	1,286.28	1,252.05	842.71
Exports	126.72	106.92	29.33	92.76	98.38			0.33	
Resources:									
Future Conservation/Efficiency				34.66	35.61	19.38	62.15	64.46	37.51
Demand Response									
Cogeneration	36.96	40.26	33.47	49.50	49.50	34.02	49.50	49.50	34.02
Hydro	532.62	470.58	420.52	657.14	578.74	326.98	682.26	574.54	317.29
Wind	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00
Other Renewables	31.02	29.04	21.93	31.02	31.02	29.89	31.02	31.02	27.10
Thermal - Natural Gas	361.68	330.00	109.16	572.95	466.03	437.02	572.95	466.03	416.73
Thermal - Coal	141.90	145.86	107.94	146.52	146.52	123.71	146.52	146.52	125.57
Net Long Term Contracts						7.70	6.06		5.99
Net Short Term Contracts	69.96	104.28	21.68	0.00	0.00	0.00	0.00	0.00	0.00
BPA	54.12	0.00	31.18	54.12	0.00	27.72	0.00	0.00	0.00
Other									
Imports									
Total Resources	1,228.26	1,120.02	752.39	1,545.91	1,307.42	1,006.44	1,550.46	1,332.07	964.21
Load Resource Balance	0.00	0.00	0.00	262.86	40.79	223.79	264.19	79.70	121.50

Date of Board/Commission Appr January-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

(1) The units for 1-Hour Peak Capacity of Winter and Summer should be MW, instead of MWh. (commerce adjusted) (2) Using 90th percentile for hydro energy, rather than using critical water year. (3) Load for Base Year is actual load, instead of weather adjusted load.
Notes from Commerce, Energy Office: Avista reported total region estimate in original cover sheet. The orignal numbers were then multiplied by 0.66 to represent 2/3 of the total as advised by Avista, which is their approximation of their load that serves Washington State.

Benton PUD

<<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**
Loads	307.00	400.00	195.00	316.00	405.00	206.19	320.00	420.00	216.09
Exports									
Resources:									
Future Conservation/Efficiency				8.19	8.19	8.19	13.09	13.09	13.09
Demand Response									
Cogeneration									
Hydro	1.60	1.50	1.00	1.60	1.50	1.00	1.60	1.50	1.00
Wind	0.95	0.95	5.67	0.95	0.95	5.67	0.95	0.95	5.67
Other Renewables									
Thermal - Natural Gas	50.00	50.00	45.83	50.00	50.00	45.83	50.00	50.00	29.16
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts									
BPA	284.47	330.47	195.00	284.47	330.47	204.68	284.47	330.47	204.68
Other									
Imports									
Total Resources	337.02	382.92	247.50	345.21	391.11	265.38	350.11	396.01	253.60
Load Resource Balance	30.02	-17.08	52.50	29.21	-13.89	59.19	30.11	-23.99	37.51

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

1) The Winter and Summer numbers are in peak MW but the annual column is in average MW. 2) Wind at 5% of rated capacity. 3) Contract expires in August 2022. 4) Benton's CHWM currently exceeds load requirements, Benton's load will grow into CHWM in about 2017. Benton PUD Board of Commissioners adopted the 2012 IRP on August 28, 2012 by Resolution No. 2191.

Benton Rural Electric Association << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	66.15	72.31	78.97
Resources:			
Future Conservation/Efficiency		0.14	0.16
Demand Response			
BPA Tier 1	65.99	64.17	66.54
BPA Tier 2			12.27
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)	0.16	8.00	
Other			
Total Resources	66.15	72.31	78.97
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

Power supply options in 2021 may be different that what is indicated here, but this is our estimate.

Big Bend Electric Cooperative << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	58.20	64.63	69.29
Resources:			
Future Conservation/Efficiency		0.19	0.21
Demand Response		0.00	0.00
BPA Tier 1 (include BPA PF)	58.20	62.11	62.11
BPA Tier 2	0.00	0.00	0.00
Non BPA:			
Co-generation	0.00	0.00	0.00
Hydro (critical water)	0.00	0.00	0.00
Wind	0.00	0.00	0.00
Other Renewables	0.00	0.00	0.00
Thermal-Natural Gas	0.00	0.00	0.00
Thermal-Coal	0.00	0.00	0.00
Market Purchase (non BPA)	0.00	2.33	6.97
Other	0.00	0.00	0.00
Total Resources	58.20	64.63	69.29
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

See attached Narrative

City of Centralia << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	30.81	34.61	38.17
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	24.47	24.47	24.47
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	7.11	7.11	7.11
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)		3.03	6.58
Other			
Total Resources	31.59	34.61	38.17
Load Resource Balance	0.78	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

See Resource Plan

PUD No. 1 of Chelan County <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads	413.00	220.00	179.31	469.00	243.00	203.03	520.00	258.00	218.39
Exports									
Resources:									
Future Conservation/Efficiency				18.40	18.00	11.49	37.40	36.50	23.34
Demand Response									
Cogeneration									
Hydro	474.00	307.00	200.00	419.00	284.00	181.00	419.00	284.00	181.00
Wind	0.06	2.26	2.56	0.15	0.04	2.22	0.15	0.04	2.22
Other Renewables									
Thermal - Natural Gas									
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts									
BPA									
Other									
Imports									
Total Resources	474.06	309.26	202.56	437.55	302.04	194.71	456.55	320.54	206.56
Load Resource Balance	61.06	89.26	23.25	-31.45	59.04	-8.32	-63.45	62.54	-11.83

Date of Board/Commission Approval July-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

The cover sheet and notes are included in Chelan PUD's 2012 IRP as Appendix B. Chelan PUD's 2012 IRP can be found at http://www.chelanpud.org/IRP.html.

Cheney, City of << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2017*	*2022*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	15.75	17.87	19.42
Resources:			
Future Conservation/Efficiency		0.25	0.25
Demand Response			
BPA Tier 1	15.75	16.05	16.05
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			3.00
Thermal-Coal			
Market Purchase (non BPA)		1.00	
Other		0.57	0.12
Total Resources	15.75	17.87	19.42
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

As a member of Northwest Intergovernmental Energy Supply our current resource plan indicates that the use of a combined cycle gas turbine is the most feasable resource for our Utility in the forecast future. These resource plans change with changes in the market conditions which may change the direction we are currently heading.

City of Chewelah << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	2.68	2.97	2.97
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1	2.68	2.97	2.97
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	2.68	2.97	2.97
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

PUD #1 of Clallam County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2010	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	72.08	86.05	91.66
Resources:			
Future Conservation/Efficiency		6.10	9.30
Demand Response			
BPA Tier 1	72.08	77.16	77.16
BPA Tier 2		2.12	4.53
Non BPA:			
Co-generation			
Hydro (critical water)		0.67	0.67
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	72.08	86.05	91.66
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

• The base year 2010 is weather normalized actual load.
• The 2017 and 2022 load forecast is based on 2011 weather normalized actual load applied to BPA's AARG of 0.6% including I-937 conservation.
• Lowest cost resource mix when coupled with Renewable Energey Credits (REC's) to meet Energy Independence Act.

PUD No. 1 of Clark County <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**MW**	**MW**	**(MWa)**	**MW**	**MW**	**(MWa)**	**MW**	**MW**	**(MWa)**
Loads	955.53	687.20	528.92	1,088.60	815.61	565.81	1,105.77	878.04	578.39
Exports									
Resources:									
Future Conservation/Efficiency				69.59		32.98	84.12		31.81
Demand Response									
Cogeneration									
Hydro			0.32	3.00	3.00	1.59	3.00	3.00	1.59
Wind			19.73			19.78			19.78
Other Renewables									
Thermal - Natural Gas	259.30	243.40	115.96	253.00	224.00	220.01	253.00	224.00	220.01
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts			94.10	218.25	151.72		220.90	214.15	
BPA	720.53	443.80	333.47	544.76	436.90	323.11	544.76	436.90	323.11
Other									
Imports									
Total Resources	979.83	687.20	563.58	1,088.60	815.61	597.47	1,105.77	878.04	596.30
Load Resource Balance	24.30	0.00	34.66	0.00	0.00	31.66	0.00	0.00	17.91

Date of Board/Commission Approval: August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

Clark PUD was a BPA Partial Requirements customer until October 2011 when the PUD became a Slice/Block customer. Base year short-term contracts are market energy purchases when the River Road Generating Plant (Thermal-Natural Gas) was shutdown for economic displacement (Feb-Apr and Jun-Jul). The 19.78 aMW of "Wind" shown in 2017 and 2022 is equal to the projected generation from the Combine Hills II project of which Clark PUD has purchased the entire output via a 20-year power purchase agreement with Eurus. Clark PUD's action plan includes studying the utilities long-term capacity needs to determine the best fit capacity resource(s) to serve the PUD's capacity requirements. Forecast Short Term Contract capacity shown in 2017 and 2022 may include a combination of short-term market purchases, peaking resources, hedge products and/or surplus Slice energy if available. 2017 and 2022 summer peaks would be served by some amount of conservation, but the amount was not estimated. The Hydro resource shown is Clark PUD's share of the Packwood Hydroelectric Project. Clark PUD began using its share of Packwood generation to serve load beginning in October 2011.

Columbia REA << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2010	2015	2020
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	38.25	42.56	46.50
Resources:			
Future Conservation/Efficiency		0.20	0.20
Demand Response			
BPA Tier 1	38.25	38.25	38.25
BPA Tier 2	0.00	4.11	8.05
Non BPA:			
Co-generation	0.00	0.00	0.00
Hydro (critical water)	0.00	0.00	0.00
Wind	0.00	0.00	0.00
Other Renewables	0.00	0.00	0.00
Thermal-Natural Gas	0.00	0.00	0.00
Thermal-Coal	0.00	0.00	0.00
Market Purchase (non BPA)	0.00	0.00	0.00
Other	0.00	0.00	0.00
Total Resources	38.25	42.56	46.50
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Power Purchase in excess of BPA Tier 1 and conservation will be supplied by NESC.

Town of Coulee Dam << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	2.01	2.06	2.06
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	2.01	2.06	2.06
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	2.01	2.06	2.06
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

COWLITZ PUD <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads	756.57	594.61	559.80	877.44	683.73	645.02	902.84	698.55	655.47
Exports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resources:									
Future Conservation/Efficiency				29.89	29.89	27.32	24.04	24.04	21.97
Demand Response				0.00	0.00	0.00	0.00	0.00	0.00
Cogeneration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	108.00	105.00	47.51	78.00	78.00	15.74	78.00	78.00	15.74
Wind	118.00	125.00	39.87	18.90	18.90	34.30	18.90	18.90	34.30
Other Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thermal - Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thermal - Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Long Term Contracts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Short Term Contracts	25.00	25.00	18.72	0.00	0.00	0.00	0.00	0.00	0.00
BPA	782.00	556.00	495.00	791.00	762.00	558.69	791.00	762.00	556.11
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Resources	1,033.00	811.00	601.10	917.79	888.79	636.05	911.94	882.94	628.12
Load Resource Balance	276.43	216.39	41.30	40.35	205.06	-8.97	9.10	184.39	-27.35

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

PUD No. 1 of Douglas County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	82.54	93.16	106.33
Resources:			
Future Conservation/Efficiency		0.16	0.23
Demand Response			
BPA Tier 1 (include BPA PF)			
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	112.30	112.30	223.30
Wind	3.14	3.10	3.10
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)	21.66	18.07	0.00
Other			
Total Resources	137.10	133.62	226.63
Load Resource Balance	54.56	40.47	120.30

Date of Board/Commission Approval 12/07 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

The "Market Purchase (non BPA)" resource category consists of the annual amounts under a pre-existing long-term firm power exchange agreement dated October 1, 2000.

Town of Eatonville << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	3.51	3.69	3.98
Resources:			
Future Conservation/Efficiency		0.05	0.08
Demand Response			
BPA Tier 1 (include BPA PF)	3.51	3.64	3.90
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	3.51	3.69	3.98
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Town of Eatonville << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	3.51	3.69	3.98
Resources:			
Future Conservation/Efficiency		0.05	0.08
Demand Response			
BPA Tier 1 (include BPA PF)	3.51	3.64	3.90
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	3.51	3.69	3.98
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

City of Ellensburg << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	23.50	25.00	26.50
Resources:			
Future Conservation/Efficiency		0.20	0.20
Demand Response			
BPA Tier 1 (include BPA PF)	23.50	24.34	24.34
BPA Tier 2		0.00	1.00
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables		0.02	0.02
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	23.50	24.56	25.56
Load Resource Balance	0.00	-0.44	-0.94

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Loads, Tier 1 and Tier 2 resources are as forecasted by BPA and are subject to change every rate period. The Load Resource Balance row does not equal zero because of the way that BPA's contracts treat Tier 2 power requirements. Utilities are not required to purchase Tier 2 power until their loads exceed their Tier 1 allocation by at least one full MW and all Tier 2 power is purchased in even MW's. When a utility's load exceeds its Tier 1 allocation (and any full MW Tier 2 requirement) the fraction of a MW that remains is billed to the utility as part of its load shaping charge. The load shaping charge is neither Tier 1 or Tier 2. Since your form does not have a resource row to account for this the Load Resouce Balance line shows a negative fraction of a MW.

Elmhurst Mutual Power and Light Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by: **Dan Brooks**

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	**Annual**	**Annual**	**Annual**
Units	**(MWa)**	**(MWa)**	**(MWa)**
Loads	32.19	33.41	34.80
Resources:			
Future Conservation/Efficiency		0.68	0.86
Demand Response			
BPA Tier 1 (include BPA PF)	32.19	32.73	32.72
BPA Tier 2			1.22
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	32.19	33.41	34.80
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Public Utility District #1 of Ferry County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2010	2015	2020
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	11.52	12.11	12.77
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1	11.52	12.11	12.77
BPA Tier 2	0.00	0.00	0.00
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	11.52	12.11	12.77
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval July-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

We are a full-requirements customer of the BPA and, as such, have no choice as to resource options. Using BPA Fiscal Year period.

Franklin PUD << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2010	2015	2020
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	112.00	120.00	124.00
Resources:			
Future Conservation/Efficiency		3.40	8.61
Demand Response			
BPA Tier 1 (include BPA PF)	109.00	119.10	119.10
BPA Tier 2	0.00	0.00	0.00
Non BPA:			
Co-generation			
Hydro (critical water)		0.70	0.70
Wind	6.00	6.00	6.00
Other Renewables		0.68	0.68
Thermal-Natural Gas	11.00	30.00	30.00
Thermal-Coal			
Market Purchase (non BPA)	14.00		
Other			
Total Resources	140.00	159.88	165.09
Load Resource Balance	28.00	39.88	41.09

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Franklin has sufficient resources to meet its loads through the 10-year estimate period and, but for balancing market purchases, is not in need of additional resources.

Public Utility District No. 2 of Grant County (Grant PUD) <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2016**			**2021**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**
Loads	505	546	474	615	666	572	685	720	621
Exports	662	662	215	662	662	51	662	662	51
Resources:									
Future Conservation/Efficiency				-	-	4			3
Demand Response									
Cogeneration									
Hydro	1,807	1,820	508	1,807	1,820	527	1,807	1,820	530
Wind	-	-	4	-	-	3	-	-	3
Other Renewables									
Thermal - Natural Gas									
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts	40	18	31						
BPA	9	4	146	9	4	6	9	4	6
Other									
Imports									
Total Resources	1,856	1,842	689	1,816	1,824	540	1,816	1,824	542
Load Resource Balance	689	634	(0)	539	496	(83)	469	442	(130)

Date of Board/Commission Approval 8/27/2012 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

The summer period is assumed to be May through September with all other months being winter period. Hydro is listed at Firm Hydro.

Grays Harbor PUD

<<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads	241.00		148.00	247.51		152.00	257.28		158.00
Exports									
Resources:									
Future Conservation/Efficiency				4.28			8.55		
Demand Response									
Cogeneration	5.00		5.00	11.00		11.00	5.50		5.50
Hydro									
Wind	3.00		7.80	3.00		7.80	3.00		7.80
Other Renewables									
Thermal - Natural Gas	45.00		41.25	45.00		41.25	45.00		26.25
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts									
BPA	174.43		133.00	174.43		133.00	174.43		133.00
Other	22.00		22.00	22.00		22.00	22.00		22.00
Imports									
Total Resources	249.43	0.00	209.05	259.71	0.00	215.05	258.48	0.00	194.55
Load Resource Balance	8.43	0.00	61.05	12.20	0.00	63.05	1.20	0.00	36.55

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

1. Cogeneration resources are purchases through PPA between the District and internal industrial customer 2. Study assumes 15% Capactity factor for wind resources during winter events. The District is a winter peaking utility and does not have capacity constraints in the summer months. 3. Capacity analysis assumes Fredrickson is fully available. Annual average assumes one month of maintenance outage. 4. Represents internal customer generation currently used to serve customer load. No additional resource requirements are identified during the 10 year reporting horizon.

Inland Power and Light Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2010	2015	2020
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	104.08	112.66	121.30
Resources:			
Future Conservation/Efficiency		1.45	2.50
Demand Response			
BPA Tier 1	104.08	109.35	109.35
BPA Tier 2		1.86	2.45
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			7.00
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	104.08	112.66	121.30
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval June-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

For 2012 Resource Plan, Inland Power is assuming that in 2015 its Above HWM load (net of conservation) will be served with BPA Tier 2 rate service. For 2020 the assumption is that approximately 75% of Inland Power's Above HWM load (net of conservation) will be served with natural gas fired CCCT energy and 25% with some type of BPA Tier 2 rate service. Resource investigations to be conducted in 2013 and 2014 will likely change the assumptions for 2020 and beyond as additional information will be available regarding the likely cost and availability of new renewable resources, the potential future cost of natural gas and other factors. Inland Power is assuming in this plan that it will use RECs through 2019 for the majority of its RCW 19.285 "eligible renewable" compliance obligation.

PUD No 1 of Kittitas County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	10.72	11.61	12.07
Resources:			
Future Conservation/Efficiency		0.23	0.24
Demand Response			
BPA Tier 1 (include BPA PF)	9.74	9.74	9.74
BPA Tier 2		0.66	1.11
Non BPA:			
Co-generation			
Hydro (critical water)	0.98	0.98	0.98
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	10.72	11.61	12.07
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Public Utility Number 1 of Klickitat County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	39.00	42.30	44.80
Resources:			
Future Conservation/Efficiency		0.30	0.30
Demand Response			
BPA Tier 1	34.50	34.50	34.50
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	4.50	4.50	4.50
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)		3.00	5.50
Other			
Total Resources	39.00	42.30	44.80
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Hydro listed is Klickitat's McNary Fishway Project that is a declared resource. We offer conservation programs but in our rural county there is no way to meet all of our load growth with conservation.

Lakeview Light and Power << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2011*	*2016*	*2021*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	32.16	34.21	35.41
Resources:			
Future Conservation/Efficiency		1.05	2.10
Demand Response			
BPA Tier 1	32.16	33.16	33.31
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	32.16	34.21	35.41
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Commerce adjusted loads for 2016 and 2021 to reflect loads before rather than after conservation.

Lewis County PUD

<<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads	220.37	133.89	115.60	241.00	170.30	119.55	246.80	180.40	121.94
Exports									
Resources:									
Future Conservation/Efficiency				10.10	0.00	4.51	13.10	0.00	5.27
Demand Response									
Cogeneration									
Hydro			0.35	3.00	0.00	1.24	3.00	0.00	1.23
Wind			8.74			8.25			8.25
Other Renewables									
Thermal - Natural Gas									
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts				61.90	16.30		64.70	26.40	
BPA	220.37	133.89	113.38	166.00	154.00	115.45	166.00	154.00	115.45
Other									
Imports									
Total Resources	220.37	133.89	122.46	241.00	170.30	129.45	246.80	180.40	130.20
Load Resource Balance	0.00	0.00	6.86	0.00	0.00	9.90	0.00	0.00	8.26

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

PUD No. 1 of Mason County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2010*	*2017*	*2022*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	8.69	9.78	10.36
Resources:			
Future Conservation/Efficiency		0.34	0.62
Demand Response			
BPA Tier 1 (include BPA PF)	8.77	9.44	9.74
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	8.77	9.78	10.36
Load Resource Balance	0.08	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

See attached Resource Plan

Mason County PUD No. 3 << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	80.05	84.02	87.80
Resources:			
Future Conservation/Efficiency		6.04	7.32
Demand Response			
BPA Tier 1	79.05	81.12	81.12
BPA Tier 2		0.00	0.00
Non BPA:			
Co-generation			
Hydro (critical water)		0.66	0.66
Wind	1.00	2.00	2.00
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	80.05	89.82	91.10
Load Resource Balance	0.00	5.80	3.30

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

McCleary Light and Power << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	3.43	4.55	4.71
Resources:			
Future Conservation/Efficiency		0.01	0.02
Demand Response			
BPA Tier 1 (include BPA PF)	3.43	4.54	4.69
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	3.43	4.55	4.71
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

City of Milton << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	7.274	8.057	8.633
Resources:			
Future Conservation/Efficiency		0.044	0.027
Demand Response			
BPA Tier 1 (include BPA PF)	7.274	8.013	7.548
BPA Tier 2			1.058
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	7.27	8.06	8.63
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

BPA CHWM 7.548 aMW

City of Milton << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	7.274	8.057	8.633
Resources:			
Future Conservation/Efficiency		0.044	0.027
Demand Response			
BPA Tier 1 (include BPA PF)	7.274	8.013	7.548
BPA Tier 2			1.058
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	7.27	8.06	8.63
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

BPA CHWM 7.548 aMW

Modern Electric Water Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	25.70	27.24	28.77
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	25.70	26.68	26.68
BPA Tier 2	0.00	0.56	2.09
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	25.70	27.24	28.77
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval September-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Nespelem Valley Electric Cooperative, Inc. << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2007*	*2012*	*2022*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	5.70	6.10	7.10
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	5.70	6.10	6.40
BPA Tier 2			0.70
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	5.70	6.10	7.10
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Ohop Mutual Light Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	10.14	11.27	12.35
Resources:			
Future Conservation/Efficiency		0.19	0.25
Demand Response			
BPA Tier 1 (include BPA PF)	10.14	11.08	10.31
BPA Tier 2			1.79
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	10.14	11.27	12.35
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval September-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Okanogan County Electric Cooperative << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	6.84	6.74	6.84
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	6.84	6.62	6.62
BPA Tier 2		0.05	0.21
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)		0.07	
Other			
Total Resources	6.84	6.74	6.83
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

PUD No 1 of Okanogan County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2012	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	71.20	74.80	78.70
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	49.68	49.68	49.68
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	24.21	24.21	24.21
Wind	4.50	4.50	4.50
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	78.38	78.38	78.38
Load Resource Balance	7.18	3.58	-0.32

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

LOADS: Used 2011 Actual Load. FORECAST: data @ 1.0%. RESOURCES: BPA based on Block/Slice contract (block: 23.915, slice: 25.763). HYDRO: based on critical Wells Dam (8% of output)

Orcas Power and Light Cooperative << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	25.08	27.29	29.53
Resources:			
Future Conservation/Efficiency		1.00	1.53
Demand Response		0.00	0.50
BPA Tier 1 (include BPA PF)	25.10	27.00	27.40
BPA Tier 2	0.00	0.00	0.06
Non BPA:			
Co-generation	0.00	0.00	0.00
Hydro (critical water)	0.00	0.00	0.00
Wind	0.00	0.00	0.00
Other Renewables	0.02	0.03	0.04
Thermal-Natural Gas	0.00	0.00	0.00
Thermal-Coal	0.00	0.00	0.00
Market Purchase (non BPA)	0.00	0.00	0.00
Other			
Total Resources	25.13	28.03	29.53
Load Resource Balance	0.05	0.74	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

OPALCO has a limited, but growing, number of solar site being installed on the County. Although the number of sites installed each year is constant, the size (kW) of each site is increasing. At this time OPALCO is not actively using renewable energy credits to offset any additional energy needs. Information above is based on OPALCO's Board approved 2012 Load Forecast.

Pacific Power and Light Company <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads		753.3	511.1		796.4	534.8		831.9	563.5
Exports		111.7	59.9		58.4	25.8		20.8	16.2
Resources:									
Future Conservation/Efficiency					26.5	23.6		48.4	42.6
Demand Response					60.4	1.9		58.1	1.9
Cogeneration		1.9	1.4		2.6	2.2		4.3	3.7
Hydro		76.1	39.3		71.5	36.2		53.2	27.3
Wind		19.1	50.0		18.8	48.3		18.6	57.2
Other Renewables		2.7	2.3		2.8	2.2		2.7	2.2
Thermal - Natural Gas		179.1	160.9		254.1	217.9		271.2	238.8
Thermal - Coal		470.5	397.1		423.8	369.9		407.2	355.6
Net Long Term Contracts		14.6	12.6		23.1	20.0		19.8	17.4
Net Short Term Contracts		102.9	14.0		63.7	8.8		59.1	8.2
BPA		0.0	0.0		0.0	0.0		0.0	0.0
Other		94.7	66.4		98.3	69.5		96.1	73.3
Imports		60.9	47.8		6.5	21.4		6.2	15.9
Total Resources	0.00	1,022.57	791.93	0.00	1,052.04	822.06	0.00	1,044.80	843.98
Load Resource Balance	0.00	157.59	220.94	0.00	197.30	261.44	0.00	192.10	264.36

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

Notes/Explanation for category choices:

PacifiCorp includes energy efficiency / demand response in its 2012 load and resource balance.

These resources have been removed to align with the reporting requirement above.

Treatment of reserves as a resources results in a greater position length relative to what PacifiCorp reports in its IRP.

Public Utility District No. 2 of Pacific County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	35.60	39.66	40.15
Resources:			
Future Conservation/Efficiency		0.71	0.84
Demand Response			
BPA Tier 1 (include BPA PF)	34.03	36.87	36.87
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)	1.57	2.08	2.44
Other			
Total Resources	35.60	39.66	40.15
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Parkland Light and Water Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	14.11	14.82	15.38
Resources:			
Future Conservation/Efficiency		0.04	0.06
Demand Response			
BPA Tier 1 (include BPA PF)	14.11	14.77	14.28
BPA Tier 2			1.04
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	14.11	14.82	15.38
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

BPAs Contract High Water Mark (CHWM):14.278 aMW

Pend Oreille PUD << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by: Pend Oreille PUD

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	115.03	128.43	124.24
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	41.49	29.44	29.44
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	94.01	81.60	81.60
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	135.50	111.04	111.04
Load Resource Balance	20.47	-17.39	-13.20

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Peninsula Light Company << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	69.71	76.41	82.99
Resources:			
Future Conservation/Efficiency		1.50	3.00
Demand Response			
BPA Tier 1	69.71	72.29	72.29
BPA Tier 2		1.00	0.64
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind		2.00	5.43
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			1.64
Total Resources	69.71	76.79	82.99
Load Resource Balance	0.00	0.38	0.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Purchase from Northwest Energy Supply Cooperative. Purchase may be comprised of renewable and/or market purchase sources.

City of Port Angeles << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2017	2020
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	87.74	88.23	90.79
Resources:			
Future Conservation/Efficiency		2.13	3.67
Demand Response		0.31	0.83
BPA Tier 1 (include BPA PF)	87.50	85.70	86.20
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)	0.15	0.00	0.00
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)	0.09	0.09	0.09
Other			
Total Resources	87.74	88.23	90.79
Load Resource Balance	0.00	0.00	0.00

Date of City Council Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Port for Seattle - SeaTac Airport << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	16.55	16.89	18.50
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	17.54	17.54	17.54
BPA Tier 2			0.96
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	17.54	17.54	18.50
Load Resource Balance	0.99	0.65	0.00

Date of Board/Commission Approval October-08 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

The Port plans to meet all load growth with conservation or renewables. To date we have not identified conservation activities to account for the .96aMW growth in 2021. The loads listed above included planned conservation activities.

Puget Sound Energy

<<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**
Loads	5,090.00	3,272.00	2,755.00	5,582.00	3,647.00	3,078.00	6,067.00	4,024.00	3,410.00
Exports		300.00	47.00		300.00	47.00		300.00	47.00
Resources:									
Future Conservation/Efficiency				447.00		296.00	749.00		554.00
Demand Response				52.00			144.00		
Cogeneration									
Hydro	924.00		542.00	958.00		544.00	901.00		527.00
Wind	101.00		222.00	101.00		254.00	106.00		344.00
Other Renewables							25.00		21.00
Thermal - Natural Gas	1,717.00		905.00	2,466.00		905.00	2,462.00		905.00
Thermal - Coal	657.00		597.00	657.00		597.00	657.00		597.00
Net Long Term Contracts	12.00		4.00	-16.00		-5.00	-5.00		-6.00
Net Short Term Contracts	1,287.00			1,907.00			1,942.00		
BPA									
Other									
Imports	508.00		201.00	308.00		50.00	308.00		50.00
Total Resources	5,206.00	0.00	2,471.00	6,880.00	0.00	2,641.00	7,289.00	0.00	2,992.00
Load Resource Balance	116.00	-3,572.00	-331.00	1,298.00	-3,947.00	-484.00	1,222.00	-4,324.00	-465.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

City of Richland << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by: **8/20/2012**

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	100.71	122.19	137.04
Resources:			
Future Conservation/Efficiency		3.68	9.33
Demand Response			
BPA Tier 1 (include BPA PF)	100.71	101.52	101.52
BPA Tier 2	0.00	16.99	11.23
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			3.74
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			11.23
Other			
Total Resources	100.71	122.19	137.04
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

Choosing least-cost resources.

City of Ruston << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	0.71	0.71	0.72
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)			
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)	0.71	0.71	0.72
Other			
Total Resources	0.71	0.71	0.72
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

City of Ruston did not submit a cover sheet. Commerce estimated loads and resources based on City of Ruston's 2011 fuel mix report data and population estimates from OFM.

Seattle City Light <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads			1,161.00			1,269.00			1,342.00
Exports			36.00						
Resources:									
Future Conservation/Efficiency						69.00			139.00
Demand Response									
Cogeneration			3.00			5.00			5.00
Hydro			707.00			720.00			721.00
Wind			47.00			47.00			0.00
Other Renewables			6.00			6.00			44.00
Thermal - Natural Gas									
Thermal - Coal									
Net Long Term Contracts									
Net Short Term Contracts									
BPA			518.00			518.00			518.00
Other									
Imports			36.00			0.00			0.00
Total Resources	0.00	0.00	1,317.00	0.00	0.00	1,365.00	0.00	0.00	1,427.00
Load Resource Balance	0.00	0.00	120.00	0.00	0.00	96.00	0.00	0.00	85.00

Date of Board/Commission Approval July-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

1) 2017 and 2022 load is before new conservation; 2) 1977 water year. 3) Includes City Light hydro resources and long-term hydro contracts; 4) Stateline wind contract expires 2021; 5) Other renewables include landfill gas and waste wood biomass; 6) 36 aMW exchange ends in 2012. 7) RECs accounted for as costs to future resource portfolios as needed.

PUD No. 1 of Skamania County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	15.20	16.15	16.69
Resources:			
Future Conservation/Efficiency		0.33	0.61
Demand Response			
BPA Tier 1 (include BPA PF)	15.20	15.82	16.08
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	15.20	16.15	16.69
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

PUD No. 1 of Snohomish County <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2011**			**2016**			**2021**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**	**(MWh)**	**(MWh)**	**(MWa)**
Loads	1,375.00	885.00	821.40			860.30			989.70
Exports	0.00	0.00	0.00			0.00			0.00
Resources:									
Future Conservation/Efficiency						43.10			91.10
Demand Response						0.00			0.00
Cogeneration	0.00	25.30	19.50			0.00			0.00
Hydro	36.00	23.30	67.60			32.90			36.90
Wind	0.00	20.00	58.20			65.20			65.20
Other Renewables	4.00	2.40	3.60			7.50			56.70
Thermal - Natural Gas	0.00	0.00	0.00			0.00			0.00
Thermal - Coal	0.00	0.00	0.00			0.00			0.00
Net Long Term Contracts	0.00	0.00	0.00			0.00			0.00
Net Short Term Contracts	207.50	101.70	-180.80			-59.20			-33.00
BPA	1,143.00	723.00	869.90			779.20			780.90
Other	-15.50	-10.70	-16.60			-8.40			-8.10
Imports									
Total Resources	1,375.00	885.00	821.40	0.00	0.00	860.30	0.00	0.00	989.70
Load Resource Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date of Board/Commission Approval December-11 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

1) This is the Snohomish PUD 2012 progress report update to the comprehensive 2010 Integrated Resource Plan.
2) 5 and 10 Year Estimates are derived from the Mid-Term Assessment of the 2010 IRP adopted by the Board of Commissioners on 12/20/2011.
3) The Mid-Term Assessment did not include a peak analysis.
4) For the Base Year, system Winter peak occurred on 12/12/11 hour ending 19:00, and system Summer peak occurred on 9/26/11 hour ending 20:00.
5) "Loads" for the 5 and 10 Year Estimates are before new conservation and are at the total system level (i.e., retail sales + distribution line losses).
6) "Future Conservation / Efficiency" reflects figure 2-4 on p.13 of the Mid-Term Assessment of the 2010 Integrated Resource Plan (adopted 12/20/11).
7) "Cogeneration" reflects termination of operations for the Everett Cogeneration Facility in October 2011.
8) "Hydro" includes Jackson, Woods Creek, Youngs Creek and Packwood. The 10 year estimate also includes two new small hydro resources.
9) "Wind" includes the output associated with long term power purchase agreements for the White Creek, Wheat Field and Hay Canyon wind projects.
10) "Other Renewables" for the Base Year include the output via long-term contract from Hampton (biomass) and Klickitat (landfill gas) projects.
11) "Other Renewables" for the 5 and 10 Year estimates include expected new renewable resources not currently under contract.
12) "Net Short Term Contracts" reflect the net quantities of Snohomish PUD's short-term balancing purchases (+) and sales (-).
13) "BPA" reflects acquisitions under long-term contract via Snohomish PUD's Block/Slice contract.
14) "Other" reflects regional transmission line losses (1.9%).

Town of Steilacoom << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	4.84	5.01	5.20
Resources:			
Future Conservation/Efficiency		0.03	0.03
Demand Response			
BPA Tier 1 (include BPA PF)	4.84	4.98	5.18
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	4.84	5.01	5.20
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval September-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

City of Sumas << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	3.44	3.90	4.12
Resources:			
Future Conservation/Efficiency		0.03	0.04
Demand Response			
BPA Tier 1 (include BPA PF)	3.44	3.87	4.08
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	3.44	3.90	4.12
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Tacoma Power <<< Utility Name

Washington State Utility

Integrated Resource Plan **2012**

Prepared by:

	Base Year			5 Year Estimate			10 Year Estimate		
Estimate Year		**2012**			**2017**			**2022**	
Period	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**	**Winter**	**Summer**	**Annual**
Units	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**	**(MW)**	**(MW)**	**(MWa)**
Loads	1,003.00		570.00			608.00			639.00
Exports									
Resources:									
Future Conservation/Efficiency									
Demand Response									
Cogeneration									
Hydro	586.00		182.00			184.00			184.00
Wind									
Other Renewables									
Thermal - Natural Gas									
Thermal - Coal									
Net Long Term Contracts	6.00		28.00			28.00			28.00
Net Short Term Contracts									
BPA	583.00		400.00			416.00			418.00
Other									
Imports									
Total Resources	1,175.00	0.00	610.00	0.00	0.00	628.00	0.00	0.00	630.00
Load Resource Balance	172.00	0.00	40.00	0.00	0.00	20.00	0.00	0.00	-9.00

Date of Board/Commission Approval August-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in planning

Notes:

1. Totals may be off due to rounding.
2. aMW estimates based on critical water. At average water TP has an additional 190aMW at its disposal.
3. Tacoma Power dues not face capacity constraints during the summer months. Tacoma Power's load is lowest and supply is highest during the summer.
4. Tacoma Power's energy efficiency efforts are anticipated to achieve 11.4 MW in 2012/2013 and another 36.8 MW from 2014 through 2023.

Tanner Electric Cooperative << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2012	2017	2022
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	11.07	11.52	12.11
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1 (include BPA PF)	11.07	11.52	12.11
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	11.07	11.52	12.11
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval 8/2012 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Vera Water and Power << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	*2010*	*2015*	*2020*
Period	***Annual***	***Annual***	***Annual***
Units	***(MWa)***	***(MWa)***	***(MWa)***
Loads	25.95	27.73	29.61
Resources:			
Future Conservation/Efficiency			
Demand Response			
BPA Tier 1	25.95	27.56	27.56
BPA Tier 2		0.17	0.05
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			2.00
Other			
Total Resources	25.95	27.73	29.61
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval November-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Lowest cost resource option was chosen in this time period.

Wahkiakum Public Utility District No. 1 << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	5.20	5.58	5.86
Resources:			
Future Conservation/Efficiency		0.03	0.03
Demand Response			
BPA Tier 1 (include BPA PF)	5.20	5.55	5.83
BPA Tier 2			
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	5.20	5.58	5.86
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

5.080 aMW; BPA CHWM

P.U.D. No.1 of Whatcom County << Utility Name

Washington State Utility Resource Plan **2012**

Prepared by:

	Base Year	5 Yr. Est.	10 Yr Est.
Estimate Year	2011	2016	2021
Period	Annual	Annual	Annual
Units	(MWa)	(MWa)	(MWa)
Loads	26.15	28.93	29.08
Resources:			
Future Conservation/Efficiency		0.28	0.56
Demand Response		0.00	0.00
BPA Tier 1	26.15	27.24	27.24
BPA Tier 2		1.41	1.28
Non BPA:			
Co-generation			
Hydro (critical water)			
Wind			
Other Renewables			
Thermal-Natural Gas			
Thermal-Coal			
Market Purchase (non BPA)			
Other			
Total Resources	26.15	28.93	29.08
Load Resource Balance	0.00	0.00	0.00

Date of Board/Commission Approval September-12 (mm/yy)

Notes: Explain resource choices other than conservation / Use of renewable energy credits in

Annual periods are based on BPA fiscal fear (October through September (following year) Conservation is cumulative amount of ten year period.