

#### DEPARTMENT OF COMMERCE

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August 8, 2012

To: Washington Utility Representatives on Fuel Mix Disclosure

From: Angela Burrell, State Energy Office

Subject: 2012 Utility Fuel Mix Report (based on CY 2011 information)

Enclosed is your utility's fuel mix report to share with your Washington electricity retail customers. The report is based on calendar year 2011 data provided by your utility.

This year, it was evident that purchases from Stateline Wind Plants (WA and OR) were disproportionate to the amount generated at each site, yet the overall Stateline purchases were commensurate with production. We assumed that this was a matter of some utilities selecting the correct plant but the wrong location. In the interest of time, we opted to allocate the Stateline claims in proportion to each plant's fraction of the total electricity claimed. Therefore, if you reported Stateline purchases/claims, the figure will be distributed proportionally among the WA and OR plants (whether you purchased from one or both sites).

I have included the following for your reference:

- The **Net System Mix** -- the mix for the balance of power pool resources *after utilities' claims on specific resources are deducted.* (The Net System Mix is assigned to "spot" market purchases, which are non-contractual, or very short-term contract, purchases.)
- Tables describing your utility's **Fuel Mix** and **Claims** on generation.

If your utility reports "zero" in any fuel category, it is not necessary to include these fuels in the report to your customers. The zeros automatically print from our software program and are not edited out.

The Washington State Aggregate Fuel Mix will be posted on our website by the end of the month.

For questions, call: 360-725-3120 or email: <a href="mailto:Angela.Burrell@commerce.wa.gov">Angela.Burrell@commerce.wa.gov</a>

All available Washington State Fuel Mix Disclosure program publications are posted on our website at: http://www.cted.wa.gov/site/539/default.aspx

## NWPP Net System Mix\* Calendar Year 2011

The Net System Mix is not the aggregate mix for the Northwest power pool. Rather, it is the mix for the balance of power pool resources *after utilities' claims on specific resources are deducted*. The Net System Mix is assigned to "spot" market purchases, which are non-contractual, or very short-term contract, purchases.

Biomass	0.79%
Coal (anthracite)	0.00%
Coal (bituminous)	36.02%
Coal (lignite)	0.62%
Coke	0.29%
Geothermal	0.00%
Hydro	50.07%
Landfill Gases	0.15%
Natural Gas	10.03%
Nuclear	1.25%
Other	0.12%
Petroleum (heavy oil)	0.01%
Petroleum (light oil)	0.07%
SolarPhotovoltaic	0.00%
SolarThermal	0.00%
Waste	0.59%
Wind	0.00%
Total	100.00%

<sup>\*</sup>The net system mix is calculated for each fuel by deducting utility claims and plant use from reported generation. The percentages are used to calculate fuel amounts for each utility's market purchases.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	2.03%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	87.19%
Landfill Gases	0.01%
Natural Gas	0.64%
Nuclear	5.02%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	4.93%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	2.110	3.829	5.939	0.12%
Coal	97.452	0.000	97.452	2.03%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	133.197	4,058.781	4,191.978	87.19%
Landfill Gases	0.402	0.000	0.402	0.01%
Natural Gas	26.671	3.937	30.609	0.64%
Nuclear	3.315	238.185	241.500	5.02%
Other	0.319	0.000	0.319	0.01%
Petroleum	0.984	0.000	0.984	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	1.568	0.000	1.568	0.03%
Wind	0.000	237.000	237.000	4.93%
Total	266.018	4,541.732	4,807.750	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Foote Creek I Claim Type: PIntMix 59.000

Wind 59.000

Condon Windpower LLC Claim Type: PIntMix 178.000

Wind 178.000

#### Claims On BPA\*

BPA Resource Mix	4,304.732
Biomass	3.829
Natural Gas	3.937
Nuclear	238.185
Water	4,058.781
Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		266.018
	BPA Market Purchase*	266.018

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	2.98%
Coal	22.75%
Cogeneration	0.23%
Geothermal	0.00%
Hydro	53.34%
Landfill Gases	0.03%
Natural Gas	18.36%
Nuclear	0.27%
Other	0.03%
Petroleum	0.09%
Solar	0.00%
Waste	1.91%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	10,289.347	169,702.926	179,992.273	2.98%
Coal	475,332.702	897,850.136	1,373,182.838	22.75%
Cogeneration	0.000	14,149.492	14,149.492	0.23%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	649,678.034	2,569,036.000	3,218,714.034	53.34%
Landfill Gases	1,961.771	0.000	1,961.771	0.03%
Natural Gas	130,091.627	977,828.815	1,107,920.442	18.36%
Nuclear	16,170.798	0.000	16,170.798	0.27%
Other	1,554.155	0.000	1,554.155	0.03%
Petroleum	4,799.213	894.864	5,694.077	0.09%
Solar	0.000	0.000	0.000	0.00%
Waste	7,646.352	107,836.767	115,483.119	1.91%
Wind	0.000	0.000	0.000	0.00%
Total	1,297,524.000	4,737,299.000	6,034,823.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Noxon Rapids	Claim Type:	PIntMix	773,691.000
	Water		773,691.000
Little Falls	Claim Type:	PIntMix	133,793.000
	Water		133,793.000
Long Lake	Claim Type:	PIntMix	348,506.000
	Water		348,506.000
Meyers Falls	Claim Type:	PIntMix	6,345.000
	Water		6,345.000
Nine Mile	Claim Type:	PIntMix	33,023.000
	Water		33,023.000
Rocky Reach	Claim Type:	PIntMix	202,508.000
	Water		202,508.000
Wells	Claim Type:	PIntMix	227,321.000
	Water		227,321.000
Priest Rapids	Claim Type:	PIntMix	115,525.000
	Water		115,525.000
Wanapum	Claim Type:	PIntMix	111,538.000
	Water		111,538.000

Sheep Creek Hydro Inc	Claim Type:	PIntMix	4,740.000
	Water		4,740.000
Upriver Dam Hydro Plant	Claim Type:	PIntMix	37,846.000
	Water		37,846.000
Potlatch Corp Idaho Pulp	Claim Type:	Cogen	162,893.000
	Natural Gas	3	14,149.492
	Waste		107,836.767
	Wood		40,906.741
Kettle Falls	Claim Type:	PIntMix	106,765.000
	Natural Gas	3	691.815
	Wood		106,073.185
Plummer Sawmill	Claim Type:	Cogen	22,723.000
	Wood		22,723.000
Rathdrum Power LLC	Claim Type:	PIntMix	524,088.000
	Natural Gas	3	524,088.000
Colstrip	Claim Type:	PIntMix	898,745.000
	Coal(bitumi	nous)	897,850.136
	Petroleum(I	ight oil)	612.512
	Petroleum(h	neavy oil)	282.352
Northeast	Claim Type:	PIntMix	181.000
	Natural Gas	3	181.000
Rathdrum	Claim Type:	PIntMix	4,883.000
	Natural Gas	3	4,883.000

Type: PIntMix	442,284.000
ural Gas	442,284.000
n Type: PintMix	5,701.000
	5,701.000
n Type: PintMix	473,945.000
	473,945.000
n Type: PlntMix	33,172.000
er	33,172.000
n Type: PlntMix	40,205.000
er	40,205.000
n Type: PintMix	26,878.000
	26,878.000
1 1 1	ural Gas  Type: PIntMix ter  Type: PIntMix ter  Type: PIntMix

#### **Market Purchases**

Total Market Purchases 1,297,524.000

Utility Market Purchase 1,297,524.000

\* 'BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.22%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.61%
Landfill Gases	0.01%
Natural Gas	0.69%
Nuclear	5.27%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	277.892	484.260	762.152	0.13%
Coal	12,837.674	0.000	12,837.674	2.22%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	17,546.351	513,313.376	530,859.727	91.61%
Landfill Gases	52.983	0.000	52.983	0.01%
Natural Gas	3,513.484	497.951	4,011.435	0.69%
Nuclear	436.737	30,123.191	30,559.928	5.27%
Other	41.974	0.000	41.974	0.01%
Petroleum	129.616	0.000	129.616	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	206.511	0.000	206.511	0.04%
Wind	0.000	0.000	0.000	0.00%
Total	35,043.222	544,418.778	579,462.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### Claims On BPA\*

BPA Resource Mix 544,418.778

Biomass 484.260 Natural Gas 497.951

Nuclear 30,123.191

Water 513,313.376 Wind 0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		35,043.222
	BPA Market Purchase*	33,643.222
	Utility Market Purchase	1,400.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.20%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.64%
Landfill Gases	0.01%
Natural Gas	0.69%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Paral	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	242.168	425.893	668.061	0.13%
Coal	11,187.340	0.000	11,187.340	2.20%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	15,290.699	451,444.845	466,735.544	91.64%
Landfill Gases	46.172	0.000	46.172	0.01%
Natural Gas	3,061.812	437.934	3,499.746	0.69%
Nuclear	380.593	26,492.509	26,873.102	5.28%
Other	36.578	0.000	36.578	0.01%
Petroleum	112.953	0.000	112.953	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	179.963	0.000	179.963	0.04%
Wind	0.000	0.000	0.000	0.00%
Total	30,538.279	478,801.181	509,339.460	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### Claims On BPA\*

<b>BPA Resource Mix</b>		478,801.181
	Biomass	425.893
	Natural Gas	437.934
	Nuclear	26,492.509
	Water	451,444.845
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		30,538.279
	BPA Market Purchase*	29,588.279
	Utility Market Purchase	950.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Evol	MWh from	MWh from	Total	<b>D</b> 1
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	10.844	19.683	30.527	0.13%
Coal	500.956	0.000	500.956	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	684.699	20,864.217	21,548.916	91.71%
Landfill Gases	2.068	0.000	2.068	0.01%
Natural Gas	137.104	20.240	157.344	0.67%
Nuclear	17.042	1,224.392	1,241.434	5.28%
Other	1.638	0.000	1.638	0.01%
Petroleum	5.058	0.000	5.058	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	8.059	0.000	8.059	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	1,367.468	22,128.532	23,496.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		22,128.532
	Biomass	19.683
	Natural Gas	20.240
	Nuclear	1,224.392
	Water	20,864.217
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		1,367.468
	BPA Market Purchase*	1,367.468

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

0.13%
2.13%
0.00%
0.00%
91.71%
0.01%
0.67%
5.28%
0.01%
0.02%
0.00%
0.03%
0.00%
100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	36.695	66.607	103.303	0.13%
Coal	1,695.203	0.000	1,695.203	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,316.980	70,603.211	72,920.190	91.71%
Landfill Gases	6.996	0.000	6.996	0.01%
Natural Gas	463.952	68.490	532.443	0.67%
Nuclear	57.671	4,143.266	4,200.937	5.28%
Other	5.543	0.000	5.543	0.01%
Petroleum	17.116	0.000	17.116	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	27.270	0.000	27.270	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	4,627.426	74,881.574	79,509.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		74,881.574
	Biomass	66.607
	Natural Gas	68.490
	Nuclear	4,143.266
	Water	70,603.211
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### **Market Purchases**

Total Warket Purchases		4,027.420
	BPA Market Purchase*	4,627.426
* 'BPA Market Purchases' are the	fraction of delivered BPA power that BPA purchase	ed on the market.
**The BPA Slice product includes a Such power is assigned the net system fuel mix as though it were a market p	a small amount of wind power that is not bundled wurchase.	ith the Renewable Energy Credits (REC) associated with that power.

### **City of Centralia**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.10%
Coal	1.60%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	93.93%
Landfill Gases	0.01%
Natural Gas	0.50%
Nuclear	3.82%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

### **City of Centralia**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	97.556	170.068	267.624	0.10%
Coal	4,506.762	0.000	4,506.762	1.60%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	6,159.779	257,866.885	264,026.664	93.93%
Landfill Gases	18.600	0.000	18.600	0.01%
Natural Gas	1,233.435	174.876	1,408.311	0.50%
Nuclear	153.320	10,578.985	10,732.304	3.82%
Other	14.735	0.000	14.735	0.01%
Petroleum	45.503	0.000	45.503	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	72.497	0.000	72.497	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	12,302.187	268,790.813	281,093.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# City of Centralia Claims On Plants

Yelm Claim Type: PIntMix 77,596.000

Water 77,596.000

### **City of Centralia**

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		191,194.813
	Biomass	170.068
	Natural Gas	174.876
	Nuclear	10,578.985
	Water	180,270.885
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### **City of Centralia**

#### **Market Purchases**

<b>Total Market Purchases</b>		12,302.187
	BPA Market Purchase*	11,815.187
	Utility Market Purchase	487.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **City of Cheney**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.20%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.63%
Landfill Gases	0.01%
Natural Gas	0.69%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.00%
Total	100.00%

### **City of Cheney**

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	65.699	115.236	180.935	0.13%
Coal	3,035.061	0.000	3,035.061	2.20%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	4,148.278	122,149.847	126,298.125	91.63%
Landfill Gases	12.526	0.000	12.526	0.01%
Natural Gas	830.652	118.494	949.146	0.69%
Nuclear	103.253	7,168.220	7,271.473	5.28%
Other	9.923	0.000	9.923	0.01%
Petroleum	30.644	0.000	30.644	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	48.823	0.000	48.823	0.04%
Wind	0.000	0.000	0.000	0.00%
Total	8,284.859	129,551.797	137,836.656	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# City of Cheney Claims On BPA\*

BPA Resource Mix	129,551.797
Biomass	115.236
Natural Gas	118.494
Nuclear	7,168.220
Water	122,149.847
Wind	0.000

\*The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

# **City of Cheney**

#### **Market Purchases**

Total Market Purchases	8,284.859
BPA Market Purchase*	8,005.859
Utility Market Purchase	279.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### Fuel Mix Calendar Year 2011

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	94.960	172.365	267.325	0.13%
Coal	4,386.823	0.000	4,386.823	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	5,995.848	182,705.997	188,701.844	91.71%
Landfill Gases	18.105	0.000	18.105	0.01%
Natural Gas	1,200.609	177.238	1,377.847	0.67%
Nuclear	149.240	10,721.886	10,871.126	5.28%
Other	14.343	0.000	14.343	0.01%
Petroleum	44.292	0.000	44.292	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	70.568	0.000	70.568	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	11,974.787	193,777.486	205,752.273	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		193,777.486
	Biomass	172.365
	Natural Gas	177.238
	Nuclear	10,721.886
	Water	182,705.997
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		11,974.787
	BPA Market Purchase*	11,974.787

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.11%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.58%
Landfill Gases	0.01%
Natural Gas	0.66%
Nuclear	5.22%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	1.24%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	29.043	52.718	81.761	0.13%
Coal	1,341.703	0.000	1,341.703	2.11%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	1,833.820	55,880.334	57,714.154	90.58%
Landfill Gases	5.537	0.000	5.537	0.01%
Natural Gas	367.204	54.208	421.412	0.66%
Nuclear	45.645	3,279.272	3,324.916	5.22%
Other	4.387	0.000	4.387	0.01%
Petroleum	13.547	0.000	13.547	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	21.583	0.000	21.583	0.03%
Wind	0.000	790.000	790.000	1.24%
Total	3,662.469	60,056.531	63,719.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	203.769
	Wind		203.769
Condon Windpower LLC	Claim Type:	PIntMix	340.000
	Wind		340.000
Klondike	Claim Type:	PIntMix	100.000
	Wind		100.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	146.231
	Wind		146.231

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		59,266.531
	Biomass	52.718
	Natural Gas	54.208
	Nuclear	3,279.272
	Water	55,880.334
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		3,662.469
	BPA Market Purchase*	3,662.469

\* 'BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.16%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.68%
Landfill Gases	0.01%
Natural Gas	0.68%
Nuclear	5.27%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Euol	MWh from	MWh from	Total	Dovocat
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	354.874	632.700	987.574	0.13%
Coal	16,393.946	0.000	16,393.946	2.16%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	22,407.015	671,955.755	694,362.770	91.68%
Landfill Gases	67.660	0.000	67.660	0.01%
Natural Gas	4,486.784	650.588	5,137.372	0.68%
Nuclear	557.721	39,356.864	39,914.585	5.27%
Other	53.602	0.000	53.602	0.01%
Petroleum	165.522	0.000	165.522	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	263.718	0.000	263.718	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	44,750.842	712,595.908	757,346.750	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Morse Creek Claim Type: PlntMix 1,296.234

Water 1,296.234

#### Claims On BPA\*

<b>BPA Resource Mix</b>		711,299.674
	Biomass	632.700
	Natural Gas	650.588
	Nuclear	39,356.864
	Water	670,659.521
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		44,750.842
	BPA Market Purchase*	43,955.892
	Utility Market Purchase	794.950

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.35%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.37%
Landfill Gases	0.01%
Natural Gas	0.73%
Nuclear	5.25%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.08%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	449.267	733.653	1 102 020	0.13%
Diomass			1,182.920	
Coal	20,754.592	0.000	20,754.592	2.35%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	28,367.083	777,669.430	806,036.513	91.37%
Landfill Gases	85.657	0.000	85.657	0.01%
Natural Gas	5,680.229	754.396	6,434.624	0.73%
Nuclear	706.070	45,636.614	46,342.685	5.25%
Other	67.860	0.000	67.860	0.01%
Petroleum	209.549	0.000	209.549	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	333.865	0.000	333.865	0.04%
Wind	0.000	729.000	729.000	0.08%
Total	56,654.172	825,523.093	882,177.265	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	298.084
	Wind		298.084
Klondike	Claim Type:	PIntMix	217.000
	Wind		217.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	213.916
	Wind		213.916

#### **Claims On BPA\***

BPA Resource Mix		824,794.093
	Biomass	733.653
	Natural Gas	754.396
	Nuclear	45,636.614
	Water	777,669.430
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases	56,654.172	
	BPA Market Purchase*	50,969.460
	Utility Market Purchase	5,684.712

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	2.02%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	86.71%
Landfill Gases	0.01%
Natural Gas	0.63%
Nuclear	5.00%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	5.46%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	13.313	24.164	37.477	0.12%
Coal	615.001	0.000	615.001	2.02%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	840.575	25,614.077	26,454.652	86.71%
Landfill Gases	2.538	0.000	2.538	0.01%
Natural Gas	168.317	24.848	193.164	0.63%
Nuclear	20.922	1,503.132	1,524.054	5.00%
Other	2.011	0.000	2.011	0.01%
Petroleum	6.209	0.000	6.209	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	9.893	0.000	9.893	0.03%
Wind	0.000	1,665.000	1,665.000	5.46%
Total	1,678.780	28,831.220	30,510.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	349.318
	Wind		349.318
Foote Creek I	Claim Type:	PIntMix	416.000
	Wind		416.000
Condon Windpower LLC	Claim Type:	PIntMix	649.000
	Wind		649.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	250.682
	Wind		250.682

#### **Claims On BPA\***

BPA Resource Mix		27,166.220
	Biomass	24.164
	Natural Gas	24.848
	Nuclear	1,503.132
	Water	25,614.077
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 1,678.780

BPA Market Purchase\* 1,678.780

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Final	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	91.939	166.882	258.821	0.13%
Coal	4,247.271	0.000	4,247.271	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	5,805.110	176,893.826	182,698.936	91.71%
Landfill Gases	17.529	0.000	17.529	0.01%
Natural Gas	1,162.416	171.600	1,334.016	0.67%
Nuclear	144.492	10,380.806	10,525.298	5.28%
Other	13.887	0.000	13.887	0.01%
Petroleum	42.883	0.000	42.883	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	68.323	0.000	68.323	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	11,593.850	187,613.113	199,206.963	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		187,613.113
	Biomass	166.882
	Natural Gas	171.600
	Nuclear	10,380.806
	Water	176,893.826
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 11,593.850

BPA Market Purchase\* 11,593.850

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

# **Columbia Rural Elec Assn, Inc**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

### Columbia Rural Elec Assn, Inc

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	148.184	268.973	417.157	0.13%
Coal	6,845.583	0.000	6,845.583	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	9,356.446	285,110.458	294,466.905	91.71%
Landfill Gases	28.253	0.000	28.253	0.01%
Natural Gas	1,873.536	276.578	2,150.114	0.67%
Nuclear	232.886	16,731.371	16,964.258	5.28%
Other	22.382	0.000	22.382	0.01%
Petroleum	69.117	0.000	69.117	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	110.120	0.000	110.120	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	18,686.508	302,387.381	321,073.889	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# Columbia Rural Elec Assn, Inc Claims On BPA\*

BPA Resource Mix		302,387.381
	Biomass	268.973
	Natural Gas	276.578
	Nuclear	16,731.371
	Water	285,110.458
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### Columbia Rural Elec Assn, Inc

#### **Market Purchases**

Total Market Purchases 18,686.508

BPA Market Purchase\* 18,686.508

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

# **Coulee Dam Light Department**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

# **Coulee Dam Light Department**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	8.121	14.741	22.862	0.13%
Coal	375.162	0.000	375.162	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	512.767	15,625.075	16,137.842	91.71%
Landfill Gases	1.548	0.000	1.548	0.01%
Natural Gas	102.677	15.157	117.834	0.67%
Nuclear	12.763	916.939	929.702	5.28%
Other	1.227	0.000	1.227	0.01%
Petroleum	3.788	0.000	3.788	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	6.035	0.000	6.035	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	1,024.088	16,571.912	17,596.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Coulee Dam Light Department**

#### **Claims On BPA\***

BPA Resource Mix		16,571.912
	Biomass	14.741
	Natural Gas	15.157
	Nuclear	916.939
	Water	15,625.075
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

## **Coulee Dam Light Department**

#### **Market Purchases**

Total Market Purchases		1,024.088
	BPA Market Purchase*	1,024.088

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.12%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.29%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.26%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.47%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

<b>F</b>	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	129.514	235.085	364.598	0.13%
Coal	5,983.091	0.000	5,983.091	2.12%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	8,177.605	249,188.691	257,366.295	91.29%
Landfill Gases	24.693	0.000	24.693	0.01%
Natural Gas	1,637.485	241.731	1,879.216	0.67%
Nuclear	203.545	14,623.345	14,826.889	5.26%
Other	19.562	0.000	19.562	0.01%
Petroleum	60.408	0.000	60.408	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	96.246	0.000	96.246	0.03%
Wind	0.000	1,316.000	1,316.000	0.47%
Total	16,332.149	265,604.851	281,937.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Foote Creek I	Claim Type: PIntMix	1,092.000
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Wind 1,092.000

Foote Creek II Claim Type: PIntMix 224.000

Wind 224.000

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		264,288.851
	Biomass	235.085
	Natural Gas	241.731
	Nuclear	14,623.345
	Water	249,188.691
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

<b>Total Market Purchases</b>		16,332.149
	BPA Market Purchase*	16 332 149

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	2.03%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	87.50%
Landfill Gases	0.01%
Natural Gas	0.64%
Nuclear	5.04%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	4.60%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	402.791	731.119	1,133.910	0.12%
Coal	18,607.556	0.000	18,607.556	2.03%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	25,432.546	774,982.768	800,415.314	87.50%
Landfill Gases	76.796	0.000	76.796	0.01%
Natural Gas	5,092.617	751.789	5,844.406	0.64%
Nuclear	633.028	45,478.951	46,111.979	5.04%
Other	60.840	0.000	60.840	0.01%
Petroleum	187.872	0.000	187.872	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	299.327	0.000	299.327	0.03%
Wind	0.000	42,048.000	42,048.000	4.60%
Total	50,793.373	863,992.627	914,786.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	12,895.640
	Wind		12,895.640
Foote Creek I	Claim Type:	PIntMix	4,679.000
	Wind		4,679.000
Foote Creek II	Claim Type:	PIntMix	728.000
	Wind		728.000
Condon Windpower LLC	Claim Type:	PIntMix	9,091.000
	Wind		9,091.000
Klondike	Claim Type:	PIntMix	5,400.000
	Wind		5,400.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	9,254.360
	Wind		9,254.360

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		821,944.627
	Biomass	731.119
	Natural Gas	751.789
	Nuclear	45,478.951
	Water	774,982.768
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		50,793.373
	RPA Market Purchase*	50 793 373

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from	MWh from	Total	5
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	130.037	236.035	366.073	0.13%
Coal	6,007.287	0.000	6,007.287	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	8,210.675	250,196.406	258,407.081	91.71%
Landfill Gases	24.793	0.000	24.793	0.01%
Natural Gas	1,644.107	242.709	1,886.815	0.67%
Nuclear	204.368	14,682.481	14,886.849	5.28%
Other	19.642	0.000	19.642	0.01%
Petroleum	60.653	0.000	60.653	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	96.635	0.000	96.635	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	16,398.196	265,357.631	281,755.827	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		265,357.631
	Biomass	236.035
	Natural Gas	242.709
	Nuclear	14,682.481
	Water	250,196.406
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		16,398.196
	BPA Market Purchase*	16,398.196

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	13.856	25.151	39.008	0.13%
Coal	640.117	0.000	640.117	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	874.903	26,660.129	27,535.032	91.71%
Landfill Gases	2.642	0.000	2.642	0.01%
Natural Gas	175.191	25.862	201.053	0.67%
Nuclear	21.777	1,564.518	1,586.295	5.28%
Other	2.093	0.000	2.093	0.01%
Petroleum	6.463	0.000	6.463	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	10.297	0.000	10.297	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	1,747.339	28,275.661	30,023.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		28,275.661
	Biomass	25.151
	Natural Gas	25.862
	Nuclear	1,564.518
	Water	26,660.129
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		1,747.339
	BPA Market Purchase*	1,747.339

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	104.457	189.603	294.060	0.13%
Coal	4,825.558	0.000	4,825.558	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	6,595.505	200,978.816	207,574.321	91.71%
Landfill Gases	19.916	0.000	19.916	0.01%
Natural Gas	1,320.685	194.964	1,515.649	0.67%
Nuclear	164.165	11,794.205	11,958.370	5.28%
Other	15.778	0.000	15.778	0.01%
Petroleum	48.721	0.000	48.721	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	77.625	0.000	77.625	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	13,172.411	213,157.589	226,330.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		213,157.589
	Biomass	189.603
	Natural Gas	194.964
	Nuclear	11,794.205
	Water	200,978.816
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		13,172.411
	BPA Market Purchase*	13,172.411

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Nespelem Valley Elec Coop, Inc**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

## **Nespelem Valley Elec Coop, Inc**

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	23.318	42.325	65.643	0.13%
Coal	1,077.211	0.000	1,077.211	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	1,472.317	44,864.570	46,336.887	91.71%
Landfill Gases	4.446	0.000	4.446	0.01%
Natural Gas	294.817	43.522	338.339	0.67%
Nuclear	36.647	2,632.824	2,669.471	5.28%
Other	3.522	0.000	3.522	0.01%
Petroleum	10.876	0.000	10.876	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	17.328	0.000	17.328	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	2,940.482	47,583.242	50,523.724	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## Nespelem Valley Elec Coop, Inc Claims On BPA\*

BPA Resource Mix		47,583.242
	Biomass	42.325
	Natural Gas	43.522
	Nuclear	2,632.824
	Water	44,864.570
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

## **Nespelem Valley Elec Coop, Inc**

#### **Market Purchases**

Total Market Purchases		2,940.482
	BPA Market Purchase*	2,940.482

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## Northern Lights, Inc.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.09%
Coal	0.24%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	94.52%
Landfill Gases	0.00%
Natural Gas	0.15%
Nuclear	5.00%
Other	0.00%
Petroleum	0.00%
Solar	0.00%
Waste	0.00%
Wind	0.00%
Total	100.00%

## Northern Lights, Inc.

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	0.007	0.109	0.116	0.09%
Coal	0.322	0.000	0.322	0.24%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	0.440	128.097	128.537	94.52%
Landfill Gases	0.001	0.000	0.001	0.00%
Natural Gas	0.088	0.112	0.200	0.15%
Nuclear	0.011	6.787	6.798	5.00%
Other	0.001	0.000	0.001	0.00%
Petroleum	0.003	0.000	0.003	0.00%
Solar	0.000	0.000	0.000	0.00%
Waste	0.005	0.000	0.005	0.00%
Wind	0.000	0.000	0.000	0.00%
Total	0.879	135.105	135.984	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# Northern Lights, Inc. Claims On Plants

Lake Creek Claim Type: PIntMix 11.559

Water 11.559

## Northern Lights, Inc.

#### **Claims On BPA\***

BPA Slice		123.546
	Biomass	0.109
	Natural Gas	0.112
	Nuclear	6.787
	Water	116.538

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

## Northern Lights, Inc.

#### **Market Purchases**

Total Market Purchases		0.879
	BPA Slice Wind w/o RECs**	0.879

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Ohop Mutual Light Company**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

## **Ohop Mutual Light Company**

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	40.992	74.406	115.399	0.13%
Coal	1,893.701	0.000	1,893.701	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,588.283	78,870.399	81,458.683	91.71%
Landfill Gases	7.816	0.000	7.816	0.01%
Natural Gas	518.278	76.510	594.788	0.67%
Nuclear	64.424	4,628.416	4,692.840	5.28%
Other	6.192	0.000	6.192	0.01%
Petroleum	19.120	0.000	19.120	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	30.463	0.000	30.463	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	5,169.268	83,649.732	88,819.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Ohop Mutual Light Company**

#### **Claims On BPA\***

BPA Resource Mix		83,649.732
	Biomass	74.406
	Natural Gas	76.510
	Nuclear	4,628.416
	Water	78,870.399
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### **Ohop Mutual Light Company**

#### **Market Purchases**

Total Market Purchases		5,169.268
	BPA Market Purchase*	5,169.268

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### Okanogan County Elec Coop, Inc

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

### **Okanogan County Elec Coop, Inc**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	25.856	46.931	72.787	0.13%
Coal	1,194.439	0.000	1,194.439	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	1,632.543	49,746.986	51,379.528	91.71%
Landfill Gases	4.930	0.000	4.930	0.01%
Natural Gas	326.901	48.258	375.159	0.67%
Nuclear	40.635	2,919.343	2,959.978	5.28%
Other	3.905	0.000	3.905	0.01%
Petroleum	12.060	0.000	12.060	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	19.214	0.000	19.214	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	3,260.482	52,761.518	56,022.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# Okanogan County Elec Coop, Inc Claims On BPA\*

<b>BPA Resource Mix</b>		52,761.518
	Biomass	46.931
	Natural Gas	48.258
	Nuclear	2,919.343
	Water	49,746.986
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### Okanogan County Elec Coop, Inc

#### **Market Purchases**

Total Market Purchases		3,260.482
	BPA Market Purchase*	3 260 482

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.10%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.40%
Landfill Gases	0.01%
Natural Gas	0.66%
Nuclear	5.21%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	1.44%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	99.680	180.933	280.613	0.13%
Coal	4,604.889	0.000	4,604.889	2.10%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	6,293.898	191,788.205	198,082.103	90.40%
Landfill Gases	19.005	0.000	19.005	0.01%
Natural Gas	1,260.291	186.048	1,446.339	0.66%
Nuclear	156.658	11,254.865	11,411.523	5.21%
Other	15.056	0.000	15.056	0.01%
Petroleum	46.493	0.000	46.493	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	74.076	0.000	74.076	0.03%
Wind	0.000	3,145.000	3,145.000	1.44%
Total	12,570.047	206,555.051	219,125.098	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	727.745
	Wind		727.745
Foote Creek I	Claim Type:	PIntMix	786.000
	Wind		786.000
Condon Windpower LLC	Claim Type:	PIntMix	959.000
	Wind		959.000
Klondike	Claim Type:	PIntMix	150.000
	Wind		150.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	522.255
	Wind		522.255

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		203,410.051
	Biomass	180.933
	Natural Gas	186.048
	Nuclear	11,254.865
	Water	191,788.205
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		12,570.047
	BPA Market Purchase*	12,570.047

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### **Pacific Power And Light**

#### **Fuel Mix Calendar Year 2011**

Biomass	0.79%
Coal	36.63%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	50.07%
Landfill Gases	0.15%
Natural Gas	10.03%
Nuclear	1.25%
Other	0.12%
Petroleum	0.37%
Solar	0.00%
Waste	0.59%
Wind	0.00%
Total	100.00%

### **Pacific Power And Light**

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	34,970.746	0.000	34,970.746	0.79%
Coal	1,615,529.075	0.000	1,615,529.075	36.63%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,208,082.356	0.000	2,208,082.356	50.07%
Landfill Gases	6,667.538	0.000	6,667.538	0.15%
Natural Gas	442,146.741	0.000	442,146.741	10.03%
Nuclear	54,960.228	0.000	54,960.228	1.25%
Other	5,282.159	0.000	5,282.159	0.12%
Petroleum	16,311.246	0.000	16,311.246	0.37%
Solar	0.000	0.000	0.000	0.00%
Waste	25,987.911	0.000	25,987.911	0.59%
Wind	0.000	0.000	0.000	0.00%
Total	4,409,938.000	0.000	4,409,938.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Pacific Power And Light**

#### **Market Purchases**

Total Market Purchases 4,409,938.000

Utility Market Purchase 4,409,938.000

\* 'BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	1.91%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	82.30%
Landfill Gases	0.01%
Natural Gas	0.60%
Nuclear	4.74%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	10.26%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	51.183	92.905	144.088	0.12%
Coal	2,364.496	0.000	2,364.496	1.91%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	3,231.760	98,478.484	101,710.244	82.30%
Landfill Gases	9.759	0.000	9.759	0.01%
Natural Gas	647.128	95.531	742.659	0.60%
Nuclear	80.440	5,779.094	5,859.534	4.74%
Other	7.731	0.000	7.731	0.01%
Petroleum	23.873	0.000	23.873	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	38.036	0.000	38.036	0.03%
Wind	0.000	12,677.000	12,677.000	10.26%
Total	6,454.407	117,123.014	123,577.421	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	2,710.122
	Wind		2,710.122
Foote Creek I	Claim Type:	PIntMix	2,816.000
	Wind		2,816.000
Condon Windpower LLC	Claim Type:	PIntMix	2,557.000
	Wind		2,557.000
Klondike	Claim Type:	PIntMix	1,600.000
	Wind		1,600.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	1,944.878
	Wind		1,944.878
Klondike Windpower III	Claim Type:	PIntMix	1,049.000
	Wind		1,049.000

#### **Claims On BPA\***

BPA Resource Mix		104,446.014
	Biomass	92.905
	Natural Gas	95.531
	Nuclear	5,779.094
	Water	98,478.484
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		6,454.407
	BPA Market Purchase*	6,454.407

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	2.03%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	86.83%
Landfill Gases	0.01%
Natural Gas	0.64%
Nuclear	5.00%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	5.30%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	273.205	491.993	765.198	0.12%
Coal	12,621.143	0.000	12,621.143	2.03%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	17,250.400	521,510.108	538,760.507	86.83%
Landfill Gases	52.089	0.000	52.089	0.01%
Natural Gas	3,454.223	505.902	3,960.125	0.64%
Nuclear	429.371	30,604.206	31,033.577	5.00%
Other	41.266	0.000	41.266	0.01%
Petroleum	127.430	0.000	127.430	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	203.028	0.000	203.028	0.03%
Wind	0.000	32,903.000	32,903.000	5.30%
Total	34,452.154	586,015.209	620,467.363	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	11,878.543
	Wind		11,878.543
Condon Windpower LLC	Claim Type:	PIntMix	7,850.000
	Wind		7,850.000
Klondike	Claim Type:	PIntMix	4,650.000
	Wind		4,650.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	8,524.457
	Wind		8,524.457

#### Claims On BPA\*

<b>BPA Resource Mix</b>		553,112.209
	Biomass	491.993
	Natural Gas	505.902
	Nuclear	30,604.206
	Water	521,510.108
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

<b>Total Market Purchases</b>		34,452.154
	BPA Market Purchase*	34,180.447
	Utility Market Purchase	271.707

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	0.000	0.000	0.000	0.13%
Coal	0.007	0.000	0.007	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	0.009	0.272	0.281	91.71%
Landfill Gases	0.000	0.000	0.000	0.01%
Natural Gas	0.002	0.000	0.002	0.67%
Nuclear	0.000	0.016	0.016	5.28%
Other	0.000	0.000	0.000	0.01%
Petroleum	0.000	0.000	0.000	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	0.000	0.000	0.000	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	0.018	0.288	0.306	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### Claims On BPA\*

<b>BPA Resource Mix</b>		0.288
	Biomass	0.000
	Natural Gas	0.000
	Nuclear	0.016
	Water	0.272
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		0.018
	BPA Market Purchase*	0.018

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.14%
Coal	2.97%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	86.93%
Landfill Gases	0.01%
Natural Gas	2.12%
Nuclear	4.94%
Other	0.01%
Petroleum	0.03%
Solar	0.00%
Waste	0.05%
Wind	2.80%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

<b>F</b>	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	1,095.377	1,327.883	2,423.260	0.14%
Coal	50,602.675	0.000	50,602.675	2.97%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	69,163.022	1,413,763.041	1,482,926.063	86.93%
Landfill Gases	208.845	0.000	208.845	0.01%
Natural Gas	13,849.214	22,340.051	36,189.265	2.12%
Nuclear	1,721.501	82,600.430	84,321.931	4.94%
Other	165.451	0.000	165.451	0.01%
Petroleum	510.912	0.000	510.912	0.03%
Solar	0.000	0.000	0.000	0.00%
Waste	814.011	0.000	814.011	0.05%
Wind	0.000	47,718.000	47,718.000	2.80%
Total	138,131.007	1,567,749.406	1,705,880.413	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Packwood	Claim Type:	PIntMix	1,993.000
	Water		1,993.000
Frederickson Power LP	Claim Type:	PIntMix	20,974.626
	Natural Gas	1	20,974.626
White Creek Wind Farm	Claim Type:	PIntMix	22,603.000
	Wind		22,603.000
Nine Canyon	Claim Type:	PIntMix	25,115.000
	Wind		25,115.000

#### Claims On BPA\*

BPA Resource Mix		903,520.601
	Biomass	803.681
	Natural Gas	826.402
	Nuclear	49,992.624
	Water	851,897.893
	Wind	0.000
DDA OU.		500 540 400
BPA Slice		593,543.180
	Biomass	524.203
	Natural Gas	539.023
	Nuclear	32,607.806
	Water	559,872.148

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

<b>Total Market Purchases</b>		138,131.007
	BPA Market Purchase*	55,834.489
	BPA Slice Wind w/o RECs**	4,220.670
	Utility Market Purchase	78,075.847

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.06%
Coal	2.91%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	96.03%
Landfill Gases	0.01%
Natural Gas	0.80%
Nuclear	0.10%
Other	0.01%
Petroleum	0.03%
Solar	0.00%
Waste	0.05%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from	MWh from Claims On Resources*	Total	Doroont
	Market Purchases*			Percent
Biomass	1,001.010	0.000	1,001.010	0.06%
Coal	46,243.247	0.000	46,243.247	2.91%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	63,204.617	1,462,480.000	1,525,684.617	96.03%
Landfill Gases	190.853	0.000	190.853	0.01%
Natural Gas	12,656.102	0.000	12,656.102	0.80%
Nuclear	1,573.193	0.000	1,573.193	0.10%
Other	151.198	0.000	151.198	0.01%
Petroleum	466.897	51.000	517.897	0.03%
Solar	0.000	0.000	0.000	0.00%
Waste	743.883	0.000	743.883	0.05%
Wind	0.000	0.000	0.000	0.00%
Total	126,231.000	1,462,531.000	1,588,762.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

Rocky Reach	Claim Type:	PIntMix	365,172.000
	Water		365,172.000
Rock Island	Claim Type:	PIntMix	616,272.000
	Water		616,272.000
Chelan	Claim Type:	PIntMix	479,962.000
	Water		479,962.000
Stehekin Hydro	Claim Type:	PIntMix	1,074.000
	Water		1,074.000
Stehekin Diesel	Claim Type:	PIntMix	51.000
	Petroleum(li	ight oil)	51.000

#### **Market Purchases**

Total Market Purchases 126,231.000

Utility Market Purchase 126,231.000

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.73%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.27%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	319.781	580.446	900.227	0.13%
Coal	14,772.801	0.000	14,772.801	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	20,191.257	616,709.744	636,901.000	91.73%
Landfill Gases	60.970	0.000	60.970	0.01%
Natural Gas	4,043.100	596.856	4,639.956	0.67%
Nuclear	502.570	36,106.380	36,608.950	5.27%
Other	48.301	0.000	48.301	0.01%
Petroleum	149.154	0.000	149.154	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	237.640	0.000	237.640	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	40,325.575	653,993.425	694,319.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Packwood Claim Type: PIntMix 1,440.000

Water 1,440.000

#### **Claims On BPA\***

BPA Resource Mix		652,553.425
	Biomass	580.446
	Natural Gas	596.856
	Nuclear	36,106.380
	Water	615,269.744
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 40,325.575

BPA Market Purchase\* 40,325.575

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### **Fuel Mix Calendar Year 2011**

Biomass	0.14%
Coal	4.00%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	68.95%
Landfill Gases	0.02%
Natural Gas	23.03%
Nuclear	3.74%
Other	0.01%
Petroleum	0.04%
Solar	0.00%
Waste	0.06%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	4,019.416	2,689.085	6,708.501	0.14%
Coal	185,683.281	0.000	185,683.281	4.00%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	253,789.290	2,947,679.411	3,201,468.701	68.95%
Landfill Gases	766.344	0.000	766.344	0.02%
Natural Gas	50,818.805	1,018,607.612	1,069,426.417	23.03%
Nuclear	6,316.937	167,273.459	173,590.396	3.74%
Other	607.113	0.000	607.113	0.01%
Petroleum	1,874.758	0.000	1,874.758	0.04%
Solar	0.000	0.000	0.000	0.00%
Waste	2,986.960	0.000	2,986.960	0.06%
Wind	0.000	0.000	0.000	0.00%
Total	506,862.904	4,136,249.567	4,643,112.471	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Rocky Reach	Claim Type:	PIntMix	72,800.000
	Water		72,800.000
Packwood	Claim Type:	PIntMix	2,814.000
	Water		2,814.000
River Road Gen Plant	Claim Type:	PIntMix	1,015,842.500
	Natural Gas		1 015 842 500

#### **Claims On BPA\***

BPA Slice		3,044,793.067
	Biomass	2,689.085
	Natural Gas	2,765.112
	Nuclear	167,273.459
	Water	2 872 065 411

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		506,862.904
	BPA Slice Wind w/o RECs**	21,651.446
	Utility Market Purchase	485,211.458

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.28%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.92%
Landfill Gases	0.01%
Natural Gas	0.70%
Nuclear	4.79%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.11%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	2,367.981	3,643.903	6,011.883	0.13%
Coal	109,392.617	0.000	109,392.617	2.28%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	149,516.286	4,268,002.744	4,417,519.029	91.92%
Landfill Gases	451.480	0.000	451.480	0.01%
Natural Gas	29,939.163	3,746.924	33,686.088	0.70%
Nuclear	3,721.532	226,667.488	230,389.020	4.79%
Other	357.672	0.000	357.672	0.01%
Petroleum	1,104.486	0.000	1,104.486	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	1,759.724	0.000	1,759.724	0.04%
Wind	0.000	5,269.000	5,269.000	0.11%
Total	298,610.941	4,507,330.059	4,805,941.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Priest Rapids	Claim Type:	PIntMix	153,940.000
	Water		153,940.000
Swift 2	Claim Type:	PIntMix	246,923.000
	Water		246,923.000
Nine Canyon	Claim Type:	PIntMix	5,269.000
	Wind		5,269.000

#### **Claims On BPA\***

BPA Resource Mix		3,451,518.911
	Biomass	3,070.122
	Natural Gas	3,156.922
	Nuclear	190,975.710
	Water	3,254,316.157
	Wind	0.000
BPA Slice		649,679.148
	Biomass	573.780
	Natural Gas	590.003
	Nuclear	35,691.778
	Water	612,823.587

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases	298,610.941	
	BPA Market Purchase*	213,292.089
	BPA Slice Wind w/o RECs**	4,619.852
	Utility Market Purchase	80,699.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

# **PUD No 1 of Douglas County**

### **Fuel Mix Calendar Year 2011**

Biomass	0.00%
Coal	0.00%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	100.00%
Landfill Gases	0.00%
Natural Gas	0.00%
Nuclear	0.00%
Other	0.00%
Petroleum	0.00%
Solar	0.00%
Waste	0.00%
Wind	0.00%
Total	100.00%

## **PUD No 1 of Douglas County**

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	0.000	0.000	0.000	0.00%
Coal	0.000	0.000	0.000	0.00%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	0.000	723,043.000	723,043.000	100.00%
Landfill Gases	0.000	0.000	0.000	0.00%
Natural Gas	0.000	0.000	0.000	0.00%
Nuclear	0.000	0.000	0.000	0.00%
Other	0.000	0.000	0.000	0.00%
Petroleum	0.000	0.000	0.000	0.00%
Solar	0.000	0.000	0.000	0.00%
Waste	0.000	0.000	0.000	0.00%
Wind	0.000	0.000	0.000	0.00%
Total	0.000	723,043.000	723,043.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# **PUD No 1 of Douglas County**

### **Claims On Plants**

Rocky Reach	Claim Type: PIntMix	127,927.000
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Water 127,927.000

Wells Claim Type: PIntMix 595,116.000

Water 595,116.000

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	49.720	90.248	139.968	0.13%
Coal	2,296.891	0.000	2,296.891	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	3,139.358	95,662.800	98,802.159	91.71%
Landfill Gases	9.480	0.000	9.480	0.01%
Natural Gas	628.626	92.800	721.425	0.67%
Nuclear	78.140	5,613.859	5,691.999	5.28%
Other	7.510	0.000	7.510	0.01%
Petroleum	23.191	0.000	23.191	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	36.949	0.000	36.949	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	6,269.864	101,459.707	107,729.571	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On BPA\***

BPA Resource Mix		101,459.707
	Biomass	90.248
	Natural Gas	92.800
	Nuclear	5,613.859
	Water	95,662.800
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

6,269.864

	BPA Market Purchase*	6,269.864
* 'BPA Market Purchases' are th	e fraction of delivered BPA power that BPA purchas	ed on the market.

**Total Market Purchases** 

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.17%
Coal	4.47%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	85.80%
Landfill Gases	0.02%
Natural Gas	3.17%
Nuclear	4.80%
Other	0.01%
Petroleum	0.05%
Solar	0.00%
Waste	0.07%
Wind	1.43%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	993.589	767.258	1,760.847	0.17%
Coal	45,900.403	0.000	45,900.403	4.47%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	62,736.023	817,401.642	880,137.665	85.80%
Landfill Gases	189.438	0.000	189.438	0.02%
Natural Gas	12,562.271	19,943.440	32,505.711	3.17%
Nuclear	1,561.530	47,726.977	49,288.507	4.80%
Other	150.077	0.000	150.077	0.01%
Petroleum	463.435	0.000	463.435	0.05%
Solar	0.000	0.000	0.000	0.00%
Waste	738.368	0.000	738.368	0.07%
Wind	0.000	14,657.220	14,657.220	1.43%
Total	125,295.132	900,496.538	1,025,791.670	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Packwood	Claim Type:	PIntMix	1,026.000
	Water		1,026.000
Frederickson Power LP	Claim Type:	PIntMix	19,154.490
	Natural Gas	3	19,154.490
Nine Canyon	Claim Type:	PIntMix	14,657.220
	Wind		14,657.220

#### Claims On BPA\*

<b>BPA Resource Mix</b>		431,665.543
	Biomass	383.966
	Natural Gas	394.822
	Nuclear	23,884.451
	Water	407,002.304
	Wind	0.000
BPA Slice		433,993.285
	Biomass	383.292
	Natural Gas	394.129
	Nuclear	23,842.526
	Water	409,373.338

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		125,295.132
	BPA Market Purchase*	26,675.457
	BPA Slice Wind w/o RECs**	3,086.115
	Utility Market Purchase	95,533.560

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.11%
Coal	1.23%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	92.82%
Landfill Gases	0.01%
Natural Gas	0.43%
Nuclear	5.37%
Other	0.00%
Petroleum	0.01%
Solar	0.00%
Waste	0.02%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	275.120	884.060	1,159.179	0.11%
Coal	12,709.585	0.000	12,709.585	1.23%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	17,371.282	940,601.747	957,973.029	92.82%
Landfill Gases	52.454	0.000	52.454	0.01%
Natural Gas	3,478.428	909.054	4,387.482	0.43%
Nuclear	432.380	54,992.562	55,424.942	5.37%
Other	41.555	0.000	41.555	0.00%
Petroleum	128.323	0.000	128.323	0.01%
Solar	0.000	0.000	0.000	0.00%
Waste	204.450	0.000	204.450	0.02%
Wind	0.000	0.000	0.000	0.00%
Total	34,693.578	997,387.422	1,032,081.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		504,724.734
	Biomass	448.952
	Natural Gas	461.645
	Nuclear	27,926.883
	Water	475,887.254
	Wind	0.000
BPA Slice		492,662.688
	Biomass	435.107
	Natural Gas	447.409
	Nuclear	27,065.679
	Water	464,714.493

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		34,693.578	
	BPA Market Purchase*	31,190.266	
	BPA Slice Wind w/o RECs**	3,503.312	

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.21%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.62%
Landfill Gases	0.01%
Natural Gas	0.69%
Nuclear	5.27%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	45.515	79.536	125.052	0.13%
Coal	2,102.657	0.000	2,102.657	2.21%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,873.881	84,308.203	87,182.085	91.62%
Landfill Gases	8.678	0.000	8.678	0.01%
Natural Gas	575.466	81.785	657.251	0.69%
Nuclear	71.532	4,947.528	5,019.060	5.27%
Other	6.875	0.000	6.875	0.01%
Petroleum	21.230	0.000	21.230	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	33.824	0.000	33.824	0.04%
Wind	0.000	0.000	0.000	0.00%
Total	5,739.659	89,417.052	95,156.711	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		89,417.052
	Biomass	79.536
	Natural Gas	81.785
	Nuclear	4,947.528
	Water	84,308.203
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		5,739.659
	BPA Market Purchase*	5,525.669
	Utility Market Purchase	213.990

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

# **PUD No 1 of Klickitat County**

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

## **PUD No 1 of Klickitat County**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	157.141	285.231	442.372	0.13%
Coal	7,259.360	0.000	7,259.360	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	9,921.991	302,343.782	312,265.773	91.71%
Landfill Gases	29.960	0.000	29.960	0.01%
Natural Gas	1,986.781	293.295	2,280.076	0.67%
Nuclear	246.963	17,742.689	17,989.652	5.28%
Other	23.735	0.000	23.735	0.01%
Petroleum	73.294	0.000	73.294	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	116.776	0.000	116.776	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	19,816.002	320,664.998	340,481.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **PUD No 1 of Klickitat County**

#### **Claims On BPA\***

BPA Resource Mix		320,664.998
	Biomass	285.231
	Natural Gas	293.295
	Nuclear	17,742.689
	Water	302,343.782
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

## **PUD No 1 of Klickitat County**

#### **Market Purchases**

Total Market Purchases		19,816.002
	BPA Market Purchase*	19,816.002

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **PUD No 1 of Lewis County**

### **Fuel Mix Calendar Year 2011**

Biomass	0.14%
Coal	2.76%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.99%
Landfill Gases	0.01%
Natural Gas	0.84%
Nuclear	5.18%
Other	0.01%
Petroleum	0.03%
Solar	0.00%
Waste	0.04%
Wind	0.00%
Total	100.00%

## **PUD No 1 of Lewis County**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	603.888	828.750	1,432.638	0.14%
Coal	27,897.571	0.000	27,897.571	2.76%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	38,130.006	883,230.511	921,360.518	90.99%
Landfill Gases	115.138	0.000	115.138	0.01%
Natural Gas	7,635.158	852.181	8,487.339	0.84%
Nuclear	949.074	51,552.070	52,501.144	5.18%
Other	91.214	0.000	91.214	0.01%
Petroleum	281.669	0.000	281.669	0.03%
Solar	0.000	0.000	0.000	0.00%
Waste	448.769	0.000	448.769	0.04%
Wind	0.000	0.000	0.000	0.00%
Total	76,152.488	936,463.512	1,012,616.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# PUD No 1 of Lewis County Claims On Plants

Packwood	Claim Type:	PIntMix	1,351.000
	Water		1,351.000
Mill Creek	Claim Type:	PIntMix	1,009.000
	Water		1,009.000
Burton Creek Hydro	Claim Type:	PIntMix	1,291.000
	Water		1,291.000

# PUD No 1 of Lewis County Claims On BPA\*

BPA Resource Mix		776,973.678
	Biomass	691.117
	Natural Gas	710.657
	Nuclear	42,990.667
	Water	732,581.237
	Wind	0.000
BPA Slice		155,838.834
	Biomass	137.633
	Natural Gas	141.524
	Nuclear	8,561.403
	Water	146,998.274

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

# PUD No 1 of Lewis County Market Purchases

Total Market Purchases		76,152.488	
	BPA Market Purchase*	48,014.322	
	BPA Slice Wind w/o RECs**	1,108.166	
	Utility Market Purchase	27,030.000	

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### PUD No 1 of Mason County Fuel Mix Calendar Year 2011

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

# PUD No 1 of Mason County Fuel Mix Calculations Calendar Year 2011

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	37.373	67.836	105.209	0.13%
Coal	1,726.484	0.000	1,726.484	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,359.733	71,906.002	74,265.735	91.71%
Landfill Gases	7.125	0.000	7.125	0.01%
Natural Gas	472.513	69.754	542.267	0.67%
Nuclear	58.735	4,219.719	4,278.454	5.28%
Other	5.645	0.000	5.645	0.01%
Petroleum	17.432	0.000	17.432	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	27.773	0.000	27.773	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	4,712.812	76,263.311	80,976.123	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# PUD No 1 of Mason County Claims On BPA\*

BPA Resource Mix	76,263.311
Biomas	67.836
Natura	Gas 69.754
Nuclea	r 4,219.719
Water	71,906.002
Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

# PUD No 1 of Mason County Market Purchases

Total Market Purchases 4,712.812

BPA Market Purchase\* 4,712.812

\* 'BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

## PUD No 1 of Okanogan County Fuel Mix Calendar Year 2011

Biomass	0.08%
Coal	1.14%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.83%
Landfill Gases	0.00%
Natural Gas	0.37%
Nuclear	3.66%
Other	0.00%
Petroleum	0.01%
Solar	0.00%
Waste	0.02%
Wind	3.88%
Total	100.00%

# PUD No 1 of Okanogan County Fuel Mix Calculations Calendar Year 2011

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	152.128	359.490	511.617	0.08%
Coal	7,027.778	0.000	7,027.778	1.14%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	9,605.468	550,918.523	560,523.990	90.83%
Landfill Gases	29.005	0.000	29.005	0.00%
Natural Gas	1,923.400	369.653	2,293.054	0.37%
Nuclear	239.085	22,361.914	22,600.999	3.66%
Other	22.978	0.000	22.978	0.00%
Petroleum	70.956	0.000	70.956	0.01%
Solar	0.000	0.000	0.000	0.00%
Waste	113.051	0.000	113.051	0.02%
Wind	0.000	23,932.572	23,932.572	3.88%
Total	19,183.848	597,942.152	617,126.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# PUD No 1 of Okanogan County Claims On Plants

Wells Claim Type: PIntMix 168,341.671

Water 168,341.671

Nine Canyon Claim Type: PlntMix 23,932.572

Wind 23,932.572

# PUD No 1 of Okanogan County Claims On BPA\*

BPA Resource Mix		191,967.089
	Biomass	170.755
	Natural Gas	175.582
	Nuclear	10,621.715
	Water	180,999.037
	Wind	0.000
BPA Slice		213,700.820
	Biomass	188.735
	Natural Gas	194.071
	Nuclear	11,740.199
	Water	201,577.815

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

# PUD No 1 of Okanogan County Market Purchases

Total Market Purchases		19,183.848
	BPA Market Purchase*	11,862.911
	BPA Slice Wind w/o RECs**	1,519.621
	Utility Market Purchase	5,801.316

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### PUD No 1 of Pend Oreille Cnty Fuel Mix Calendar Year 2011

Biomass	0.03%
Coal	0.64%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	98.13%
Landfill Gases	0.00%
Natural Gas	0.19%
Nuclear	0.98%
Other	0.00%
Petroleum	0.01%
Solar	0.00%
Waste	0.01%
Wind	0.00%
Total	100.00%

# PUD No 1 of Pend Oreille Cnty Fuel Mix Calculations Calendar Year 2011

Euol	MWh from	MWh from	Total	Developt
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	139.868	155.112	294.980	0.03%
Coal	6,461.422	0.000	6,461.422	0.64%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	8,831.380	978,001.835	986,833.215	98.13%
Landfill Gases	26.667	0.000	26.667	0.00%
Natural Gas	1,768.397	159.498	1,927.895	0.19%
Nuclear	219.817	9,648.699	9,868.517	0.98%
Other	21.126	0.000	21.126	0.00%
Petroleum	65.238	0.000	65.238	0.01%
Solar	0.000	0.000	0.000	0.00%
Waste	103.940	0.000	103.940	0.01%
Wind	0.000	0.000	0.000	0.00%
Total	17,637.856	987,965.144	1,005,603.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# PUD No 1 of Pend Oreille Cnty Claims On Plants

Box Canyon Claim Type: PIntMix 446,679.000

Water 446,679.000

Boundary Claim Type: PIntMix 366,025.000

Water 366,025.000

# PUD No 1 of Pend Oreille Cnty Claims On BPA\*

BPA Resource Mix		51,559.781
	Biomass	45.862
	Natural Gas	47.159
	Nuclear	2,852.850
	Water	48,613.910
	Wind	0.000
BPA Slice		123,701.363
	Biomass	109.250
	Natural Gas	112.339
	Nuclear	6,795.849
	Water	116,683.925

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

## **PUD No 1 of Pend Oreille Cnty**

#### **Market Purchases**

Total Market Purchases		17,637.856	
	BPA Market Purchase*	3,186.219	
	BPA Slice Wind w/o RECs**	879.637	
	Utility Market Purchase	13,572.000	

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Enal	MWh from	MWh from	Total	Down
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	64.073	116.302	180.375	0.13%
Coal	2,959.972	0.000	2,959.972	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	4,045.648	123,279.330	127,324.978	91.71%
Landfill Gases	12.216	0.000	12.216	0.01%
Natural Gas	810.101	119.590	929.691	0.67%
Nuclear	100.698	7,234.502	7,335.200	5.28%
Other	9.678	0.000	9.678	0.01%
Petroleum	29.885	0.000	29.885	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	47.615	0.000	47.615	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	8,079.887	130,749.724	138,829.611	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		130,749.724
	Biomass	116.302
	Natural Gas	119.590
	Nuclear	7,234.502
	Water	123,279.330
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		8,079.887
	BPA Market Purchase*	8,079.887

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### **Fuel Mix Calendar Year 2011**

Biomass	1.63%
Coal	4.03%
Cogeneration	0.10%
Geothermal	0.00%
Hydro	88.42%
Landfill Gases	0.02%
Natural Gas	1.17%
Nuclear	4.50%
Other	0.01%
Petroleum	0.04%
Solar	0.00%
Waste	0.06%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	6,264.101	110,962.553	117,226.654	1.63%
Coal	289,380.103	0.000	289,380.103	4.03%
Cogeneration	0.000	7,534.440	7,534.440	0.10%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	395,520.643	5,959,058.731	6,354,579.374	88.42%
Landfill Gases	1,194.316	0.000	1,194.316	0.02%
Natural Gas	79,199.113	5,187.626	84,386.739	1.17%
Nuclear	9,844.698	313,821.718	323,666.416	4.50%
Other	946.162	0.000	946.162	0.01%
Petroleum	2,921.736	0.000	2,921.736	0.04%
Solar	0.000	0.000	0.000	0.00%
Waste	4,655.060	0.000	4,655.060	0.06%
Wind	0.000	0.000	0.000	0.00%
Total	789,925.932	6,396,565.068	7,186,491.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Packwood	Claim Type:	PIntMix	101,703.000
	Water		101,703.000
H M Jackson	Claim Type:	PIntMix	485,784.000
	Water		485,784.000
Everett Cogen	Claim Type:	Cogen	104,236.000
	Natural Gas		7,534.440
	Wood		96,701.560
Hampton Lumber Mill	Claim Type:	PIntMix	9,216.000
	Wood		9,216.000
Woods Creek	Claim Type:	PIntMix	1,728.000
	Water		1,728.000
Youngs Creek	Claim Type:	PIntMix	3,059.000
	Water		3,059.000

#### **Claims On BPA\***

BPA Resource Mix		3,002,206.862
	Biomass	2,670.460
	Natural Gas	2,745.960
	Nuclear	166,114.862
	Water	2,830,675.581
	Wind	0.000
BPA Slice		2,688,632.205
	Biomass	2,374.533
	Natural Gas	2,441.666
	Nuclear	147,706.856
	Water	2,536,109.150

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		789,925.932
	BPA Market Purchase*	185,526.138
	BPA Slice Wind w/o RECs**	19,118.795
	Utility Market Purchase	585,281.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	20.355	36.947	57.302	0.13%
Coal	940.334	0.000	940.334	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	1,285.235	39,163.806	40,449.041	91.71%
Landfill Gases	3.881	0.000	3.881	0.01%
Natural Gas	257.356	37.992	295.347	0.67%
Nuclear	31.990	2,298.282	2,330.272	5.28%
Other	3.075	0.000	3.075	0.01%
Petroleum	9.494	0.000	9.494	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	15.127	0.000	15.127	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	2,566.846	41,537.027	44,103.873	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

BPA Resource Mix		41,537.027
	Biomass	36.947
	Natural Gas	37.992
	Nuclear	2,298.282
	Water	39,163.806
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		2,566.846
	BPA Market Purchase*	2,566.846

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **PUD No 1 of Whatcom County**

### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	1.98%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	85.14%
Landfill Gases	0.01%
Natural Gas	0.62%
Nuclear	4.90%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	7.17%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	98.844	179.416	278.260	0.12%
Coal	4,566.275	0.000	4,566.275	1.98%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	6,241.120	190,179.968	196,421.088	85.14%
Landfill Gases	18.846	0.000	18.846	0.01%
Natural Gas	1,249.723	184.488	1,434.211	0.62%
Nuclear	155.344	11,160.487	11,315.832	4.90%
Other	14.930	0.000	14.930	0.01%
Petroleum	46.104	0.000	46.104	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	73.455	0.000	73.455	0.03%
Wind	0.000	16,531.000	16,531.000	7.17%
Total	12,464.641	218,235.359	230,700.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	4,250.030
	Wind		4,250.030
Foote Creek I	Claim Type:	PIntMix	3,682.000
	Wind		3,682.000
Foote Creek II	Claim Type:	PIntMix	450.000
	Wind		450.000
Condon Windpower LLC	Claim Type:	PIntMix	3,549.000
	Wind		3,549.000
Klondike	Claim Type:	PIntMix	1,550.000
	Wind		1,550.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	3,049.970
	Wind		3,049.970

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		201,704.359
	Biomass	179.416
	Natural Gas	184.488
	Nuclear	11,160.487
	Water	190,179.968
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

lotal Market Purchases		12,464.641
	BPA Market Purchase*	12,464.641

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Fuel Mix Calendar Year 2011**

Biomass	0.27%
Coal	11.08%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	83.17%
Landfill Gases	0.05%
Natural Gas	3.06%
Nuclear	2.05%
Other	0.04%
Petroleum	0.11%
Solar	0.00%
Waste	0.18%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass			11 070 704	0.27%
DIOIIIa55	9,955.492	1,115.212	11,070.704	0.27 70
Coal	459,909.743	0.000	459,909.743	11.08%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	628,598.150	2,823,654.047	3,452,252.197	83.17%
Landfill Gases	1,898.118	0.000	1,898.118	0.05%
Natural Gas	125,870.588	1,146.742	127,017.329	3.06%
Nuclear	15,646.109	69,371.322	85,017.432	2.05%
Other	1,503.728	0.000	1,503.728	0.04%
Petroleum	4,643.495	0.000	4,643.495	0.11%
Solar	0.000	0.000	0.000	0.00%
Waste	7,398.253	0.000	7,398.253	0.18%
Wind	0.000	0.000	0.000	0.00%
Total	1,255,423.676	2,895,287.324	4,150,711.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

Priest Rapids	Claim Type:	PIntMix	786,239.000
	Water		786,239.000
Wanapum	Claim Type:	PIntMix	817,968.000
	Water		817,968.000
Potholes East Canal 66.0	Claim Type:	PIntMix	10,878.000
	Water		10,878.000
Quincy Chute	Claim Type:	PIntMix	26,449.000
	Water		26,449.000

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		1,253,753.324
	Biomass	1,115.212
	Natural Gas	1,146.742
	Nuclear	69,371.322
	Water	1,182,120.047
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 1,255,423.676

 BPA Market Purchase\*
 77,477.676

 Utility Market Purchase
 1,177,946.000

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.20%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	89.23%
Landfill Gases	0.01%
Natural Gas	0.69%
Nuclear	5.13%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.04%
Wind	2.55%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	148.580	253.352	401.932	0.13%
Coal	6,863.890	0.000	6,863.890	2.20%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	9,381.467	268,859.774	278,241.241	89.23%
Landfill Gases	28.328	0.000	28.328	0.01%
Natural Gas	1,878.546	260.514	2,139.061	0.69%
Nuclear	233.509	15,759.632	15,993.141	5.13%
Other	22.442	0.000	22.442	0.01%
Petroleum	69.302	0.000	69.302	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	110.415	0.000	110.415	0.04%
Wind	0.000	7,946.000	7,946.000	2.55%
Total	18,736.480	293,079.271	311,815.751	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	2,037.686
	Wind		2,037.686
Foote Creek I	Claim Type:	PIntMix	1,836.000
	Wind		1,836.000
Foote Creek II	Claim Type:	PIntMix	150.000
	Wind		150.000
Condon Windpower LLC	Claim Type:	PIntMix	1,710.000
	Wind		1,710.000
Klondike	Claim Type:	PIntMix	750.000
	Wind		750.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	1,462.314
	Wind		1,462.314

#### Claims On BPA\*

<b>BPA Resource Mix</b>		241,780.306
	Biomass	215.063
	Natural Gas	221.144
	Nuclear	13,377.926
	Water	227,966.173
	Wind	0.000
BPA Slice		43,352.965
	Biomass	38.288
	Natural Gas	39.371
	Nuclear	2,381.706
	Water	40,893.601

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		18,736.480
	BPA Market Purchase*	14,941.198
	BPA Slice Wind w/o RECs**	308.282
	Utility Market Purchase	3,487.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

## **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.10%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.71%
Landfill Gases	0.01%
Natural Gas	0.66%
Nuclear	5.21%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	1.11%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	320.795	582.285	903.080	0.13%
Coal	14,819.622	0.000	14,819.622	2.10%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	20,255.250	618,638.770	638,894.020	90.71%
Landfill Gases	61.163	0.000	61.163	0.01%
Natural Gas	4,055.914	598.748	4,654.662	0.66%
Nuclear	504.163	36,220.815	36,724.978	5.21%
Other	48.454	0.000	48.454	0.01%
Petroleum	149.627	0.000	149.627	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	238.393	0.000	238.393	0.03%
Wind	0.000	7,839.000	7,839.000	1.11%
Total	40,453.382	663,879.618	704,333.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

Packwood Claim Type: PlntMix 1,419.000

Water 1,419.000

Nine Canyon Claim Type: PIntMix 7,839.000

Wind 7,839.000

## **Claims On BPA\***

BPA Resource Mix		654,621.618
	Biomass	582.285
	Natural Gas	598.748
	Nuclear	36,220.815
	Water	617,219.770
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		40,453.382
	BPA Market Purchase*	40,453.382

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Fuel Mix Calendar Year 2011**

Biomass	0.30%
Coal	31.72%
Cogeneration	5.01%
Geothermal	0.00%
Hydro	49.65%
Landfill Gases	0.06%
Natural Gas	11.56%
Nuclear	0.64%
Other	0.04%
Petroleum	0.18%
Solar	0.00%
Waste	0.84%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	67,027.471	1,314.796	68,342.266	0.30%
Coal	3,096,440.327	4,140,213.556	7,236,653.883	31.72%
Cogeneration	0.000	1,142,262.986	1,142,262.986	5.01%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	4,232,170.971	7,097,498.218	11,329,669.190	49.65%
Landfill Gases	12,779.487	0.000	12,779.487	0.06%
Natural Gas	847,450.548	1,789,562.415	2,637,012.963	11.56%
Nuclear	105,340.763	41,182.062	146,522.826	0.64%
Other	10,124.169	0.000	10,124.169	0.04%
Petroleum	31,263.318	10,192.680	41,455.998	0.18%
Solar	0.000	15.000	15.000	0.00%
Waste	49,810.318	142,727.914	192,538.231	0.84%
Wind	0.000	188.000	188.000	0.00%
Total	8,452,407.373	14,365,157.627	22,817,565.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

Crystal Mountain	Claim Type:	PIntMix	269.000
	Petroleum(li	ght oil)	269.000
Electron	Claim Type:	PIntMix	49,549.000
	Water		49,549.000
Lower Baker	Claim Type:	PIntMix	327,556.000
	Water		327,556.000
Upper Baker	Claim Type:	PIntMix	296,569.000
	Water		296,569.000
Rocky Reach	Claim Type:	PIntMix	2,606,069.000
	Water		2,606,069.000
Wells	Claim Type:	PIntMix	1,044,488.000
	Water		1,044,488.000
Priest Rapids	Claim Type:	PIntMix	223,502.000
	Water		223,502.000
Wanapum	Claim Type:	PIntMix	26,238.000
-	Water		26,238.000

Port Townsend Paper Corp	Claim Type:	PIntMix	2,915.000
	Petroleum(h	neavy oil)	430.877
	Waste		1,597.914
	Water		233.456
	Wood		652.753
Twin Falls Hydro	Claim Type:	PIntMix	88,840.000
	Water		88,840.000
Wheelabrator Spokane Inc	Claim Type:	PIntMix	141,130.000
	Waste		141,130.000
Koma Kulshan Associates	Claim Type:	PIntMix	40,448.000
	Water		40,448.000
March Point Cogeneration Co	Claim Type:	Cogen	1,062,296.000
	Natural Gas		1,062,296.000
Weeks Falls	Claim Type:	PIntMix	15,585.000
	Water		15,585.000
Sumas Cogeneration Co LP	Claim Type:	PIntMix	175,590.000
	Natural Gas	;	175,590.000
Tenaska Washington Partners	Claim Type:	Cogen	80,028.000
	Petroleum(li	ght oil)	61.014
	Natural Gas		79,966.986
Hutchinson Creek	Claim Type:	PIntMix	1,161.000
	Water		1,161.000

Black Creek	Claim Type: PlntMix	9,563.000
	Water	9,563.000
Goldendale Generating	Claim Type: PIntMix	599,432.000
	Natural Gas	599,432.000
Mint Farm Generation LLC	Claim Type: PIntMix	691,036.000
	Natural Gas	691,036.000
Frederickson Power LP	Claim Type: PIntMix	133,091.000
	Natural Gas	133,091.000
Fredonia	Claim Type: PlntMix	75,582.000
	Petroleum(light oil)	3,510.234
	Natural Gas	72,071.766
Colstrip	Claim Type: PIntMix	4,144,340.000
	Coal(bituminous)	4,140,213.556
	Petroleum(light oil)	2,824.449
	Petroleum(heavy oil)	1,301.995
Whitehorn	Claim Type: PIntMix	22,147.000
	Petroleum(light oil)	1,122.400
	Natural Gas	21,024.600
Rock Island	Claim Type: PIntMix	1,621,862.000
	Water	1,621,862.000
Skookumchuck	Water  Claim Type: PIntMix	1,621,862.000 <b>4,938.000</b>

The Dalles Fishway	Claim Type: PIntMix	37,832.000
	Water	37,832.000
Encogen	Claim Type: PIntMix	87,490.000
	Petroleum(light oil)	301.539
	Natural Gas	87,188.461
Frederickson	Claim Type: PIntMix	9,819.000
	Petroleum(light oil)	371.171
	Natural Gas	9,447.829
Sygitowicz Creek	Claim Type: PIntMix	1,136.000
	Water	1,136.000
Island Community Solar	Claim Type: PlntMix	15.000
•	SolarPhotovoltaic	15.000
3 Bar G Wind Turbine #3	Claim Type: PlntMix	103.000
	Wind	103.000
First Up Knudson Wind	Claim Type: PIntMix	85.000
•	Wind	85.000
Smith Creek (Whatcom	Claim Type: PlntMix	167.000
	Water	167.000

# Puget Sound Energy, Inc Claims On BPA\*

BPA Resource Mix		744,286.627
	Biomass	662.042
	Natural Gas	680.760
	Nuclear	41,182.062
	Water	701,761.763
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 8,452,407.373

 BPA Market Purchase\*
 45,994.373

 Utility Market Purchase
 8,406,413.000

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

## **Fuel Mix Calendar Year 2011**

Biomass	0.10%
Coal	1.96%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	93.36%
Landfill Gases	0.01%
Natural Gas	0.60%
Nuclear	3.91%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	2.635	3.842	6.478	0.10%
Coal	121.749	0.000	121.749	1.96%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	166.404	5,638.055	5,804.459	93.36%
Landfill Gases	0.502	0.000	0.502	0.01%
Natural Gas	33.321	3.951	37.272	0.60%
Nuclear	4.142	239.012	243.154	3.91%
Other	0.398	0.000	0.398	0.01%
Petroleum	1.229	0.000	1.229	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	1.958	0.000	1.958	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	332.339	5,884.861	6,217.200	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

## **Claims On Plants**

Priest Rapids	Claim Type:	PIntMix	51.218
	Water		51.218
Alder	Claim Type:	PIntMix	111.170
	Water		111.170
Cushman 1	Claim Type:	PIntMix	67.377
	Water		67.377
Cushman 2	Claim Type:	PIntMix	109.375
	Water		109.375
	Water		109.373
LaGrande	Claim Type:	PIntMix	174.297
	Water		174.297
Mayfield	Claim Type:	PIntMix	357.178
	Water		357.178
Mossyrock	Claim Type:	PIntMix	571.118
Wossyrock		PIIIUVIIX	
	Water		571.118
Wynoochee	Claim Type:	PIntMix	15.360
•	Water		15.360
Grand Coulee Project Hydro	Claim Type:	PIntMix	102.332
	Water		102.332

Hood Street Reservoir Claim Type: PIntMix 1.426

Water 1.426

#### **Claims On BPA\***

BPA Resource Mix		3,716.035
	Biomass	3.305
	Natural Gas	3.399
	Nuclear	205.612
	Water	3,503.719
	Wind	0.000
554 GU		207.070
BPA Slice		607.976
	Biomass	0.537
	Natural Gas	0.552
	Nuclear	33.401
	Water	573.486

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		332.339
	BPA Market Purchase*	229.638
	BPA Slice Wind w/o RECs**	4.323
	Utility Market Purchase	98.378

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

# **Seattle City Light**

## **Fuel Mix Calendar Year 2011**

Biomass	0.05%
Coal	0.52%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	92.39%
Landfill Gases	0.25%
Natural Gas	0.18%
Nuclear	2.52%
Other	0.00%
Petroleum	0.01%
Solar	0.00%
Waste	0.01%
Wind	4.07%
Total	100.00%

## **Seattle City Light**

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	1,145.936	4,087.925	5,233.861	0.05%
Coal	52,938.339	0.000	52,938.339	0.52%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	72,355.375	9,323,795.180	9,396,150.555	92.39%
Landfill Gases	218.485	25,662.000	25,880.485	0.25%
Natural Gas	14,488.451	4,203.500	18,691.951	0.18%
Nuclear	1,800.960	254,287.685	256,088.645	2.52%
Other	173.088	0.000	173.088	0.00%
Petroleum	534.494	0.000	534.494	0.01%
Solar	0.000	0.000	0.000	0.00%
Waste	851.583	0.000	851.583	0.01%
Wind	0.000	413,697.000	413,697.000	4.07%
Total	144,506.710	10,025,733.290	10,170,240.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

# **Seattle City Light**

## **Claims On Plants**

Priest Rapids	Claim Type:	PIntMix	20,665.000
	Water		20,665.000
StatelineWA (FPL Energy	Claim Type:	PIntMix	240,852.706
	Wind		240,852.706
StatelineOR (FPL Energy	Claim Type:	PIntMix	172,844.294
	Wind		172,844.294
Columbia Ridge	Claim Type:	PIntMix	25,662.000
	Landfill Gas	es	25,662.000
Ross	Claim Type:	PIntMix	555,741.000
	Water		555,741.000
South Fork Tolt	Claim Type:	PIntMix	31,851.000
	Water		31,851.000
Cedar Falls	Claim Type:	PIntMix	70,214.000
	Water		70,214.000
Gorge	Claim Type:	PIntMix	699,722.000
	Water		699,722.000
Diablo	Claim Type:	PIntMix	588,164.000
	Water		588,164.000

## **Seattle City Light**

Boundary	Claim Type:	PIntMix	2,640,475.000
	Water		2,640,475.000
Newhalem	Claim Type:	PIntMix	1,112.000
	Water		1,112.000
Grand Coulee Project Hydro	Claim Type:	PIntMix	152,200.000
	Water		152,200.000
High Ross Treaty	Claim Type:	PIntMix	212,187.000
	Water		212,187.000

### **Seattle City Light**

#### **Claims On BPA\***

BPA Resource Mix		2,042,518.338
	Biomass	1,816.818
	Natural Gas	1,868.183
	Nuclear	113,014.415
	Water	1,925,818.921
	Wind	0.000
BPA Slice		2,571,524.952
	Biomass	2,271.107
	Natural Gas	2,335.316
	Nuclear	141,273.271
	Water	2,425,645.258

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

### **Seattle City Light**

#### **Market Purchases**

 Total Market Purchases
 144,506.710

 BPA Market Purchase\*
 126,220.662

 BPA Slice Wind w/o RECs\*\*
 18,286.048

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.10%
Coal	1.96%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	93.36%
Landfill Gases	0.01%
Natural Gas	0.60%
Nuclear	3.91%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

**Tacoma Power** 

#### **Fuel Mix Calculations Calendar Year 2011**

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	2,147.708	3,131.260	5,278.968	0.10%
Coal	99,216.770	0.000	99,216.770	1.96%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	135,608.082	4,594,631.433	4,730,239.515	93.36%
Landfill Gases	409.483	0.000	409.483	0.01%
Natural Gas	27,154.183	3,219.788	30,373.971	0.60%
Nuclear	3,375.350	194,778.765	198,154.115	3.91%
Other	324.401	0.000	324.401	0.01%
Petroleum	1,001.746	0.000	1,001.746	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	1,596.032	0.000	1,596.032	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	270,833.754	4,795,761.246	5,066,595.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

Priest Rapids	Claim Type:	PIntMix	41,739.000
	Water		41,739.000
Alder	Claim Type:	PIntMix	90,596.000
	Water		90,596.000
Cushman 1	Claim Type:	PIntMix	54,908.000
	Water		54,908.000
Cushman 2	Claim Type:	PIntMix	89,133.000
	Water		89,133.000
LaGrande	Claim Type:	PIntMix	142,040.000
	Water		142,040.000
Mayfield	Claim Type:	PIntMix	291,076.000
	Water		291,076.000
Mossyrock	Claim Type:	PIntMix	465,422.000
	Water		465,422.000
Wynoochee	Claim Type:	PIntMix	12,517.000
	Water		12,517.000
Grand Coulee Project Hydro	Claim Type:	PIntMix	83,394.000
	Water		83,394.000

**Hood Street Reservoir** 

Claim Type: PIntMix

1,162.000

Water

1,162.000

#### **Claims On BPA\***

BPA Resource Mix		3,028,315.441
	Biomass	2,693.683
	Natural Gas	2,769.840
	Nuclear	167,559.474
	Water	2,855,292.444
	Wind	0.000
DD 4 O.		405 450 005
BPA Slice		495,458.805
	Biomass	437.577
	Natural Gas	449.948
	Nuclear	27,219.291
	Water	467,351.989

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		270,833.754
	BPA Market Purchase*	187,139.559
	BPA Slice Wind w/o RECs**	3,523.195
	Utility Market Purchase	80,171.000

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.12%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.25%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.26%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.51%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	42.818	77.720	120.538	0.13%
Coal	1,978.032	0.000	1,978.032	2.12%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	2,703.547	82,382.718	85,086.265	91.25%
Landfill Gases	8.164	0.000	8.164	0.01%
Natural Gas	541.359	79.917	621.276	0.67%
Nuclear	67.293	4,834.533	4,901.825	5.26%
Other	6.467	0.000	6.467	0.01%
Petroleum	19.971	0.000	19.971	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	31.819	0.000	31.819	0.03%
Wind	0.000	473.000	473.000	0.51%
Total	5,399.470	87,847.888	93,247.358	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	116.439
	Wind		116.439
Condon Windpower LLC	Claim Type:	PIntMix	223.000
	Wind		223.000
Klondike	Claim Type:	PIntMix	50.000
	Wind		50.000
Stateline OR (FRI Frame)	Claim Tuma.	District	00.504
StatelineOR (FPL Energy	Claim Type:	PIntMix	83.561
	Wind		83.561

# Tanner Electric Cooperative Claims On BPA\*

<b>BPA Resource Mix</b>		87,374.888
	Biomass	77.720
	Natural Gas	79.917
	Nuclear	4,834.533
	Water	82,382.718
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		5,399.470
	BPA Market Purchase*	5,399.470

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.12%
Coal	2.03%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	87.51%
Landfill Gases	0.01%
Natural Gas	0.64%
Nuclear	5.04%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	4.58%
Total	100.00%

**Town of Eatonville** 

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	13.555	24.603	38.158	0.12%
Coal	626.173	0.000	626.173	2.03%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	855.845	26,079.383	26,935.228	87.51%
Landfill Gases	2.584	0.000	2.584	0.01%
Natural Gas	171.375	25.299	196.673	0.64%
Nuclear	21.302	1,530.438	1,551.740	5.04%
Other	2.047	0.000	2.047	0.01%
Petroleum	6.322	0.000	6.322	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	10.073	0.000	10.073	0.03%
Wind	0.000	1,411.000	1,411.000	4.58%
Total	1,709.277	29,070.723	30,780.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	588.600
	Wind		588.600
Condon Windpower LLC	Claim Type:	PIntMix	250.000
	Wind		250.000
Klondike	Claim Type:	PIntMix	150.000
	Wind		150.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	422.400
	Wind		422.400

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		27,659.723
	Biomass	24.603
	Natural Gas	25.299
	Nuclear	1,530.438
	Water	26,079.383
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		1,709.277
	BPA Market Purchase*	1,709.277

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.13%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	91.71%
Landfill Gases	0.01%
Natural Gas	0.67%
Nuclear	5.28%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.00%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	19.572	35.525	55.097	0.13%
Coal	904.143	0.000	904.143	2.13%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	1,235.770	37,656.478	38,892.248	91.71%
Landfill Gases	3.732	0.000	3.732	0.01%
Natural Gas	247.451	36.530	283.980	0.67%
Nuclear	30.759	2,209.826	2,240.585	5.28%
Other	2.956	0.000	2.956	0.01%
Petroleum	9.129	0.000	9.129	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	14.544	0.000	14.544	0.03%
Wind	0.000	0.000	0.000	0.00%
Total	2,468.054	39,938.359	42,406.413	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

#### **Claims On BPA\***

<b>BPA Resource Mix</b>		39,938.359
	Biomass	35.525
	Natural Gas	36.530
	Nuclear	2,209.826
	Water	37,656.478
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases		2,468.054
	BPA Market Purchase*	2,468.054

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

#### **Fuel Mix Calendar Year 2011**

Biomass	0.13%
Coal	2.11%
Cogeneration	0.00%
Geothermal	0.00%
Hydro	90.85%
Landfill Gases	0.01%
Natural Gas	0.66%
Nuclear	5.23%
Other	0.01%
Petroleum	0.02%
Solar	0.00%
Waste	0.03%
Wind	0.94%
Total	100.00%

#### **Fuel Mix Calculations Calendar Year 2011**

Final	MWh from	MWh from	Total	
Fuel	Market Purchases*	Claims On Resources*		Percent
Biomass	106.041	192.479	298.520	0.13%
Coal	4,898.732	0.000	4,898.732	2.11%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	6,695.518	204,026.398	210,721.916	90.85%
Landfill Gases	20.218	0.000	20.218	0.01%
Natural Gas	1,340.711	197.920	1,538.632	0.66%
Nuclear	166.655	11,973.049	12,139.703	5.23%
Other	16.017	0.000	16.017	0.01%
Petroleum	49.460	0.000	49.460	0.02%
Solar	0.000	0.000	0.000	0.00%
Waste	78.803	0.000	78.803	0.03%
Wind	0.000	2,190.000	2,190.000	0.94%
Total	13,372.154	218,579.846	231,952.000	100.00%

<sup>\*</sup> Market Purchases include those made directly by utilities, as well as the fraction of delivered BPA power that can be attributed to BPA's purchases of market power. Claims on Resources include those made directly by utilities, as well as the fractions of delivered BPA power that can be attributed to specific plants.

### **Claims On Plants**

StatelineWA (FPL Energy	Claim Type:	PIntMix	465.757
	Wind		465.757
Foote Creek I	Claim Type:	PIntMix	503.000
	Wind		503.000
Foote Creek II	Claim Type:	PIntMix	44.000
	Wind		44.000
Condon Windpower LLC	Claim Type:	PIntMix	743.000
	Wind		743.000
Klondike	Claim Type:	PIntMix	100.000
	Wind		100.000
StatelineOR (FPL Energy	Claim Type:	PIntMix	334.243
	Wind		334.243

#### **Claims On BPA\***

BPA Resource Mix		216,389.846
	Biomass	192.479
	Natural Gas	197.920
	Nuclear	11,973.049
	Water	204,026.398
	Wind	0.000

<sup>\*</sup>The BPA Resource Mix includes only the fraction of delivered BPA power that can be attributed to specific plants. The fraction of BPA power that BPA purchased on the market is included in the 'Market Purchases' table.

#### **Market Purchases**

Total Market Purchases 13,372.154

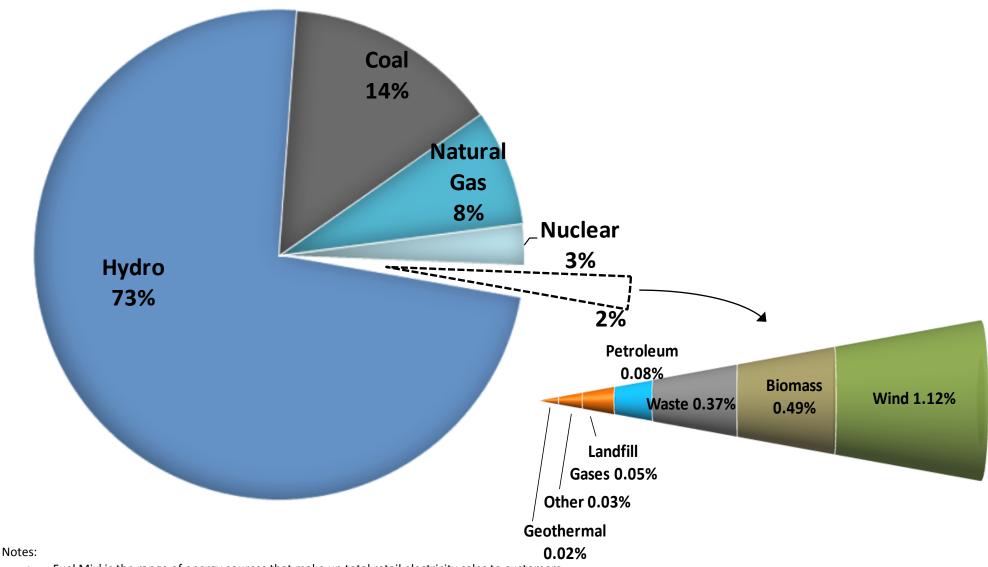
BPA Market Purchase\* 13,372.154

\*\*The BPA Slice product includes a small amount of wind power that is not bundled with the Renewable Energy Credits (REC) associated with that power. Such power is assigned the net system fuel mix -- as though it were a market purchase.

<sup>\* &#</sup>x27;BPA Market Purchases' are the fraction of delivered BPA power that BPA purchased on the market.

### **Washington State Electric Utilities Aggregate Fuel Mix 2011**

(megawatt hours) Page 1 of 2



- Fuel Mix' is the range of energy sources that make up total retail electricity sales to customers.
- "Market Purchases" are utility and BPA purchases or claims acquired on the spot market and not connected with a specified energy plant (16% of total).
- "Claims on Facilities" are utility purchases or claims connected with a specified energy plant, typically representing a contracted agreement for energy purchase (84% of total).
- The "Other" fuel category consists of fuel remaining after categories listed in fuel mix disclosure legislation have been matched with reported categories. It contains: blast furnace gas, other biomass gas such as digester gas and methane, and purchased steam.
- Black Liquor is reported in the Waste category.

### Washington State Electric Utilities Aggregate Fuel Mix 2011

(Megawatt hours)

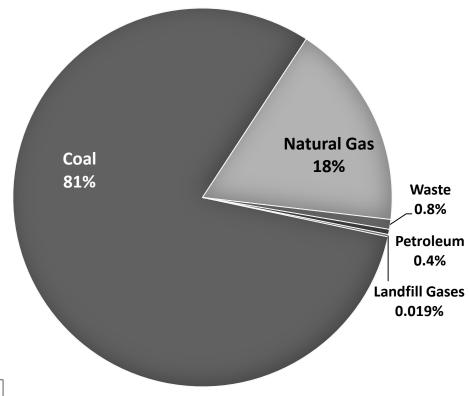
Fuel	Market Purchases	Claims on Facilities	Total	Percent
Hydro	7,272,368	59,575,028	66,847,397	73%
Coal	5,132,596	7,768,041	12,900,636	14%
Natural Gas	1,432,979	4,251,244	5,684,223	6%
Nuclear	182,630	2,207,614	2,390,245	3%
Cogeneration	-	1,319,055	1,319,055	1%
Wind	-	1,017,702	1,017,702	1%
Biomass	114,181	332,709	446,890	0.49
Waste	86,354	250,594	336,948	0.37
Petroleum	53,880	14,659	68,539	0.08
Landfill Gases	22,007	27,202	49,209	0.05
Other	17,499	9,808	27,307	0.03
Geothermal	-	18,107	18,107	0.02
Solar	-	15	15	0.00
Total	14,314,495	76,791,777	91,106,272	100%

#### Notes:

- Fuel Mix' is the range of energy sources that make up total retail electricity sales to customers.
- "Market Purchases" are utility and BPA purchases or claims acquired on the spot market and not connected with a specified energy plant (16% of total).
- "Claims on Facilities" are utility purchases or claims connected with a specified energy plant, typically representing a contracted agreement for energy purchase (84% of total).
- The "Other" fuel category consists of fuel remaining after categories listed in fuel mix disclosure legislation have been matched with reported categories. It contains: blast furnace gas, other biomass gas such as digester gas and methane, and purchased steam.
- Black Liquor is reported in the Waste category.

# 2011 Washington State Aggregate Electric Utility CO<sub>2</sub> Emissions by Fuel Type

(emissions resulting from electricity sold to Washington residents)



Fuel Type	Tons of CO <sub>2</sub>		
Coal	14,131,168		
Natural Gas	3,081,956		
Waste	146,863		
Petroleum	76,738		
Landfill Gases	33,894		
Total CO <sub>2</sub>	17.470.620		

Other Emissions	
SO <sub>2</sub> (tons)	15,098
NO <sub>x</sub> (tons)	20,236
Hg (lbs)	520

#### Notes:

- Emissions are allocated by amount and type of fuel purchased by electric utilities serving Washington State customers.
- Figures include BPA direct sales to end-users in the state of Washington.
- Natural Gas includes cogeneration; mostly comprised of the heat energy produced by a plant heat engine or power station that simultaneously generates electricity and steam energy.
- CO<sub>2</sub>=carbon dioxide, SO<sub>2</sub>=sulfur dioxide, NO<sub>x</sub>=nitrogen oxides, Hg=mercury
- Landfill Gases: electricity produced by a plant that uses waste gases produced by the decomposition of organic materials in landfills.
- Figures are rounded upward.