

NORTHWEST

6th

POWER PLAN

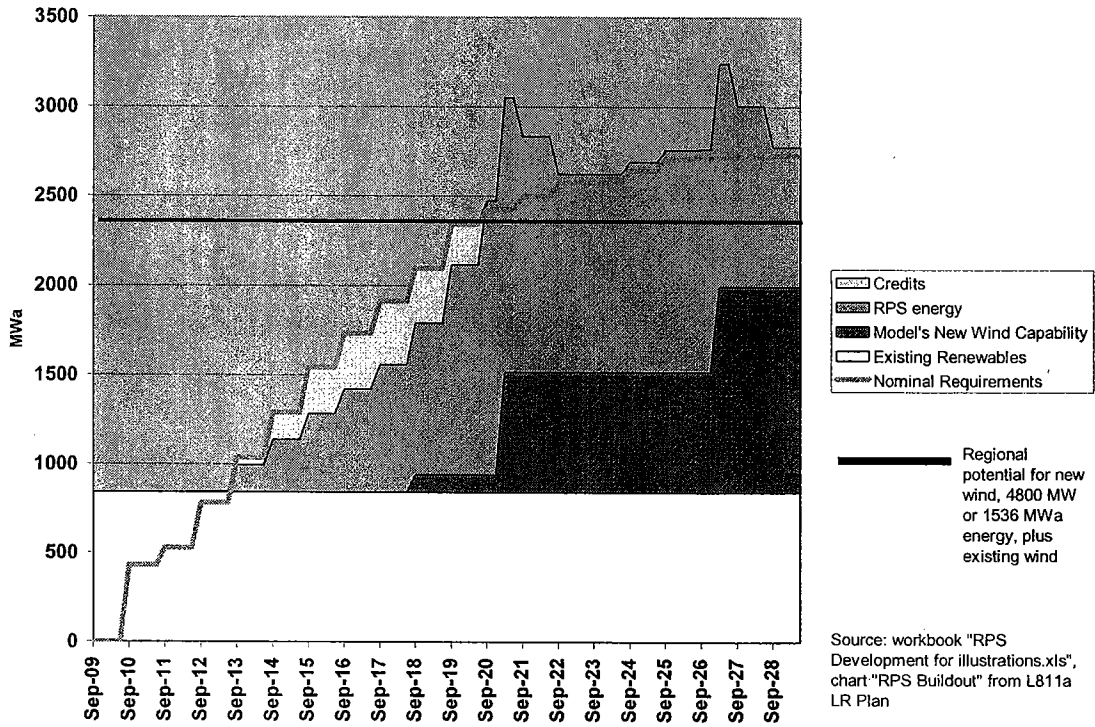
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Chapter 8: Developing a Resource Strategy

Draft Sixth Power Plan

Figure 8-11: RPS Source Development



Source: workbook "RPS Development for illustrations.xls", chart "RPS Buildout" from L811a LR Plan

Independent Power Producers' Resources

IPPs provide depth to wholesale markets but do not mitigate regional ratepayer costs or risks. IPP plants not currently under contract provide energy for the regional wholesale energy market. The IPP owners, however, receive the benefits of any energy sold, not the region. There are about 3,342 megawatts currently not under contract to regional utilities. This generation does not have firm transmission access to markets outside the region. The amount that is under contract declines over the next few years. A list of the IPPs modeled in Council studies appears in Table 8-3.

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Table 8-3: Independent Power Producers

Plant name	Uncommitted share	Project Owner	January Capacity (MW)
Big Hanaford CC1A-1E	100%	TransAlta	235.6
Centralia 1	85%	TransAlta	623.1
Centralia 2	100%	TransAlta	623.1
Grays Harbor Energy Facility (Satsop)	100%	Invenergy (dba Grays Harbor Energy)	617.5
Hermiston Power Project	100%	Calpine, dba Hermiston Power Partners	503.5
Klamath Cogeneration Project	100%	Iberdrola Renewables	456.0
Klamath Generation Peakers 1 & 2	100%	Iberdrola Renewables	45.0
Klamath Generation Peakers 3 & 4	100%	Iberdrola Renewables	45.0
Lancaster (Rathdrum CC)	100%	Cogentrix	264.1
Morrow Power	100%	Morrow Power (Subsidiary of Montsano Enviro Chem Systems)	22.5
Discounted total			3341.9

Source: workbook "Table of IPPs.xls", worksheet Sheet2

New Generating Resource Options

Resources explicitly considered include natural gas combined-cycle gas turbines, natural gas simple-cycle gas turbines, wind power plants, and gasified coal combined-cycle combustion turbines. A complete list appears in Table 8-4, below.

Table 8-4: New Resource Candidates

- Conservation
 - Discretionary conservation limited to 160 average megawatts per year
 - phased in up to 85% penetration maximum
- CCCT (415 MW) available 2011-2012
- SCCT (85 MW Frame GT) available 2012
- Wind generation (100 MW blocks), 4800 MW available by end of study
 - no REC credit if RPS are assumed in force
 - costs includes any production tax credit (PTC), transmission, and firming and integration cost
- Geothermal (14 MW blocks) available 2011, 424 MW (382 MWa) by end of study
- Woody Biomass (25 MW), available 2014, 830 MW by end of study
- Advanced Nuclear (1100 MW), available 2023, 4400 MW by end of study
- Supercritical pulverized coal-fired power plants (400 MW), available 2016
- IGCC (518 MW) available 2023, with carbon capture and sequestration
- Wind imported from Montana, with new transmission, available 2011, 1500 MW by end of study
- Five classes of demand response, 2000MW available by end of study, 1300 MW of this limited to 100 or fewer hours per year of operation

As mentioned in the discussion of existing Renewable Portfolio Standard resources, resources that have very good chance of completion are included in the base level of resources. This includes certain other thermal resources having high probability of completion. They are not modeled explicitly as new resources. Table 8-5 shows relatively new resources that are not listed in Table 8-2.