

2009 Draft Resource Program

September 2009



APPENDIX G. STATE RENEWABLE PORTFOLIO STANDARD REQUIREMENTS

G.1. Preface

As explained in Chapter 2 and Appendix B, for modeling purposes BPA relied on Renewable Portfolio Standards (RPS) assumptions consistent with the Council’s draft Sixth Power Plan. For general information purposes, the following table summarizes state RPS. Table G.1 reflects the RPS Summary.

Table G.1 RPS Summary 09/04/09

	Montana	Oregon	Washington
Legislative Basis	Senate Bill 415; codified as Title 69, Section 3, Part 20 MCA	2007 Senate Bill 838; codified as ORS 469A.005 to 469A.310	Initiative 937
Required Utilities	Any electric utility regulated by the Public Utility Commission and competitive electric suppliers Cooperatives are exempt but those with >5,000 meters or more must implement RPS considering effects on rates, reliability & finances	Utilities with retail sales >3% of all retail sales in Oregon are in large standard. No requirement for smaller utilities until 2025. However, small utilities must offer a green pricing program after 1/01/2008. Utilities must meet large standard if they purchase coal (unspecified purchases by BPA are OK). Note: no minimum term set for coal purchases.	Utilities serving > 25, 000 customers in Washington

	Montana	<u>Oregon</u>	<u>Washington</u>
Requirements	<p>Utility required to purchase renewables unless competitive bid shows total cost plus ancillaries is greater than or equal to cost of another power source over equivalent contract term; utility must purchase RECs with or without associated electricity except both RECs and electricity must be purchased from community renewable energy projects</p> <p><u>2008-2009</u></p> <p>5% of retail sales from renewables</p> <p><u>2010-2014</u></p> <p>10% of retail sales from renewables 50 MW of which from <5MW CREs;</p> <p>HB 207: Changes the definition of CRE project to be 25 MW or less</p> <p>HB 208: Sets 1/1/2012 as first compliance year for CRE projects instead of 2010</p> <p><u>2015 –</u></p> <p>15% of retail sales from renewables 75 MW of which is from <5MW projects</p> <p>HB 343 added dispatchability and seasonability of renewable energy sources as factors utilities may consider in complying with the RPS. Also allows utilities to own CRE’s up to 25 MW.</p>	<p><u>2011-2014</u></p> <p>5% of retail sales from renewables</p> <p><u>2015-2019</u></p> <p>15% of retail sales from renewables</p> <p><u>2020-2024</u></p> <p>20% of retail sales from renewables</p> <p><u>2025</u></p> <p>25% of retail sales from renewables</p> <p>Utilities with 1.5% retail sales must have 5% of total sales from renewables as of 2025</p> <p>Utilities with 1.5-3.0% retail sales must have 10% of total sales from renewables as of 2025.</p> <p>If a small utility grows into the large standard, it must meet interim targets that are set based on date it reaches large standard.</p>	<p><u>2012-2015</u></p> <p>3% of retail sales from renewables</p> <p><u>2016-2019</u></p> <p>9% of retail sales from renewables</p> <p><u>2020 –</u></p> <p>15% of retail sales from renewables</p> <p>Potential Amendment: RPS may be revised to apply to load growth only. E.g. 100% of load growth met with renewables (conservation could be used to avoid RPS).</p>

	Montana	Oregon	Washington
Eligible Renewables	<p>Energized after 1/01/05</p> <p>Located in Montana or delivered to Montana</p> <p>Wind</p> <p>Solar</p> <p>Geothermal</p> <p>Hydro (15 MW or less installed at existing dams or irrigation systems)</p> <p>Landfill or farm-based methane gas</p> <p>Wastewater treatment gas</p> <p>Biomass (excludes treated wood only)</p> <p>Hydrogen from renewable sources</p> <p>Renewable energy fraction from multiple fuel process that may also involve fossil fuels</p> <p>Compressed air produced from any other listed eligible renewable energy source, stored, and later released through a generator to produce power.</p>	<p>Energized after 1/01/1995,</p> <p>Located in WECC other than Canada</p> <p>Wind</p> <p>Solar PV and solar thermal</p> <p>Wave, Ocean, Tidal</p> <p>Geothermal</p> <p>Biomass (including black liquor but not MSW, or treated wood)</p> <p>Landfill gas or biogas</p> <p>Hydro located outside council protected areas, federal wild and scenic areas and Oregon scenic water ways.</p> <p>Efficiency upgrades to existing hydro facilities. For FBS, only Oregon’s proportionate share of upgrades counts toward standard.</p> <p>Old hydro if Certified Low Impact after 1/01/95 (capped at 50MW)</p> <p>EPP “Any electricity that the Bonneville Power Administration has designated as environmentally preferred power, or has given a similar designation for electricity generated from a renewable resource, may be used to comply with a renewable portfolio standard.”</p> <p>Hydrogen from renewable sources.</p>	<p>Energized after 3/31/99</p> <p>Located in Pacific NW or delivered real-time to the state.</p> <p>Wind</p> <p>Solar</p> <p>Geothermal</p> <p>Landfill gas</p> <p>Wave, Ocean, Tidal</p> <p>Gas from sewage treatment</p> <p>Biodiesel</p> <p>Biomass (excludes MSW, old-growth timber, black liquor & treated wood)</p> <p>Incremental Hydro owned by qualifying utility & not increasing impoundment – excludes FBS, IPP and PURPA projects.</p> <p>NOTE: Potential amendments may:</p> <ul style="list-style-type: none"> • strike real-time delivery requirements and broaden location from PNW to WECC, • include <30MW hydro, • include biomass energized prior to 3/31/99, • include FBS incremental hydro, and • list black liquor as a qualifying biomass.

	Montana	Oregon	Washington
Bonus points	None	<p>1) No limit on unbundled RECs if they are from Oregon projects, QF projects or net metered projects.</p> <p>2) Solar carve out for IOUs. Total IOU solar nameplate capacity in the state must be 20 mw by 2020. For solar projects larger than 500 kw and built before 2016, IOUs get 2:1 RECs toward RPS standard up to 20 MW capacity cap.</p>	<p>1) Dbl points for <5MW projects</p> <p>2) 1.2 points for projects energized after 2005 where the developer uses approved apprenticeship programs.</p>
Special REC provisions	2-year rollover rights if purchase exceeds need.	<p>1) All RECs must be certified by WREGIS unless net metered</p> <p>2) RECs can be banked from 1/01/08, but must be used on a first in, first out basis.</p> <p>3) RECs acquired prior to 3/31 of any year can be used for the proceeding year.</p> <p>4) Bundled RECs can come from anywhere in US.</p> <p>5) Unbundled RECs generated outside Oregon can only be used to satisfy 20% of the large renewable standard. COUs in large standard can use 50 percent RECs until 2020. (Net metered projects exempt from this.)</p> <p>6) BPA's EPP (or replacement) qualifies (regardless of energization date or location).</p>	<p>RECs produced during the compliance year, proceeding year or subsequent year all satisfy current year requirements.</p> <p><i>Note: There is interest in clarifying this limited banking language.</i></p>

	Montana	Oregon	Washington
Compliance Exceptions or Alternatives	<ol style="list-style-type: none"> 1) Utility cannot acquire RECs. 2) Generation or interconnection jeopardizes reliability. 3) Utility is restructured under Title 69 chapter 8 and competitive bids show alternative supply would cost less over equivalent term (renewables cost includes ancillary services). 4) Incremental cost of renewable acquisition exceeds 15% of the cost of any other generating resource. 	<ol style="list-style-type: none"> 1) Do not have to acquire power in excess of load; 2) Do not have to supplant BPA or Mid C-purchases. 3) Cost cap: Incremental costs exceed 4% of annual rev req. compared to cost of a conventional resource with the same terms of delivery. 4) Alternative compliance payments acceptable means of complying (established by commission for IOUs and COU boards for COUs. COUs can invest ACP in energy efficiency projects) 	<ol style="list-style-type: none"> 1) Incremental RPS costs exceed 4% of rev req. compared to cost of conventional purchase with the same terms of delivery. 2) load growth over 3 years is zero 3) force majeure or regulatory actions adversely affecting source generation.
Penalty	\$10/MWh	No financial penalty, but OPUC has enforcement authority for IOUs. COUs are not subject to penalties.	\$50/MWh
BPA Customers Impacted	Flathead, Ravalli, Vigilante, Glacier, Missoula, Lincoln	EWEB is in large standard All other utilities must offer renewables to retail customers and cannot invest in new coal resources or purchase power from coal facilities without triggering large standard.	Clark, Seattle, Snohomish, Cowlitz, Tacoma, Benton PUD, Grays Harbor, Lewis, Inland, Mason 3, Clallam, Peninsula

	Montana	Oregon	Washington
Loose-ends		<p>Bill does not set a term limit for coal purchases.</p> <p>Bill contains a loophole for market purchases attached to RECs to qualify as bundled RECs. <i>(No material difference between bundled and unbundled because bill does not require RECs and generation to be from the same resource.)</i></p> <p>ODOE currently trying to define (by administrative rule) qualifying hydro efficiencies.</p>	<p>Only state auditor has the authority to determine which hydro efficiencies qualify.</p> <p>No definition of ‘delivered real-time’.</p>
Projects which meet both WA and OR RPS (excluding Montana)	<p>Without amendments:</p> <p>Energized after 03/31/1999</p> <p>Located in the Pacific NW or located in WECC delivered real-time to Washington.</p> <p>Wind, geothermal, solar, tidal, wave, efficiency upgrades to hydro owned by WA-LSE, biogas, some biomass.</p> <p>With amendments:</p> <p>No delivery requirements to Washington.</p> <p>Other parameters still apply/limit <i>except:</i></p> <p>biomass now includes black liquor and biomass energization date relaxed to 1/01/1995.</p> <p>Include <30MW LIHI-endorsed hydro owned by WA LSE (no restriction on energization date)</p>		