

SUMMARY OF RPS REQUIREMENTS FOR WESTERN STATES/PROVINCES

(July 20, 2010)

Column 1: 2020 BA Load Forecasts allocated to State/Province (GWh)	Column 2: State/Prov. Adjusted Loads for DSM	Column 3: Loads Adjusted for Line Losses, and other exclusions from RPS	Column 4: Sector Shares (%) and 2008 Loads (GWh), EIA	Column 5: RPS % in 2020	Column 6: Special RPS Provisions	Column 7: RPS Energy 2020 Derivation
Arizona						
APS = 35,990 SRP= 47,132 TEP = 16,478 WALC = 6,202 (82.15% of WALC) <hr/> = 105,802 GWh	TBD	Less: Line losses at 6% rate = 6,348 <u>Equals:</u> 99,454 GWh	IOU 55.0% Public 39.6% Federal 1.6% Coop 3.7% 76,268 GWh	10% in 2020; applies to IOUs	Distributed Generation must be 30 % of RPS in 2020:	99,454 GWh x 55.0% (sector) <u>x 10% (RPS%)</u> 5,475 GWh <u>x 30% (DG%)</u> 1,642 GWh (DG) 3,832 GWh (non-DG)
California						
CISO = 265,869 IID = 4,707 LDWP = 32,597 SMUD= 19,153 TIDC = 3,147 PACW = 1,036 (4.99% of PACW) <hr/> = 326,509 GWh	TBD	Less: i) Line losses at 7% rate = 22,856 ; ii) Pump Loads = 13,556; iii) Small LSE sales = 2,260; <u>Equals:</u> 287,837 GWh	IOU 67.9% Public 23.7% Federal 0.9% Coop 0.1% Facility 0.5% ESP 7.0% 268,155 GWh	33% in 2020; applies to IOUs, Municipals, ESPs, community choice		287,837 GWh <u>x 33% (RPS%)</u> 94,986 GWh

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Colorado						
PSC = 49,663 WACM = 19,652 (66% of WACM) <hr/> = 69,315 GWh	TBD	Less: Line losses at 6% rate = 4,159 <u>Equals:</u> 65,156 GWh	IOU 57.7% Public 17.0% Federal 0.1% Coop 24.7% Facility 0.4% 52,142 GWh	30% in 2020; applies to IOUs 10% in 2020; applies to coops; and 10% applies to municipals serving over 40k	4% of RPS solar; ½ of solar RPS must be on-site (DG). Instate generation 125% credit	IOUs: 65,156 GWh x 57.7% (share) x 30% (RPS%) = 11,282 GWh ÷ 1.25 = 9,026 GWh (instate generation min RE) Coops: 65,156 GWh x 24.7% (share) x 10% (RPS%) = 1,612 GWh Munis: 65,156 x 17.0% (Share) x 10% (RPS%) = 1,109 GWh Total CO RE (min.): 11,746 GWh Solar set asides: 9,026 GWh x 4% = 361 GWh ÷ 2 181 GWh (DG onsite solar)

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Idaho						
IPC = 18,163 (92.6% of IPC) AVA = 5,791 (38.41% of AVA) PACE = 4,219 (7.52% of PACE) BPA = 344 (0.61% of BPA) <hr/> 28,518 GWh	TBD	Less: Line losses at 6% rate = 1,711 <u>Equals:</u> 26,807 GWh	23,901 GWh IOU 86.9% Public 4.5% Federal 0.2% Coop 8.4%	No RPS		
Montana						
NWE = 11,484 WAUW = 634 BPA = 2,547 (4.52% of BPA) <hr/> = 14,665 GWh	TBD	Less: Line losses at 6% rate = 880 <u>Equals:</u> 13,785 GWh	IOU 52.2% Public 0.1% Federal 3.1% Coop 26.1% ESP 18.5% 15,326 GWh	15% in 2020; applies to IOUs Exempts coops & municipals		13,785 GWh x 52.2% (share) <u>x 15% (RPS%)</u> = 1,079 GWh
Nevada						
NEVP = 28,302 SPP = 12,765 <hr/> = 41,067 GWh	TBD	Less: Line losses at 6% rate = 2,464 <u>Equals:</u> 38,603 GWh	IOU 84.3% Public 6.4% Federal 0.1% Coop 5.4% ESP 3.8% 35,192 GWh	22% in 2020; applies to IOUs	6% of RPS must be solar 2016-2025; 1.5% of sales in 2025 22% of RPS may be from energy efficiency (EE) in 2020-2024; 25% EE by 2025.	38,603 GWh x 84.3% (share) <u>x 22% (RPS%)</u> = 7,156 GWh <u>x .22</u> = 1,574 GWh (EE to meet RPS) 7,319 <u>- 1,610</u> = 5,582 GWh (non-EE for RPS)

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New Mexico						
PNM = 16,219 EPE = 2,182 (20.46% of EPE) WALC = 1,348 (17.85% of WALC) <hr/> = 19,749 GWh	TBD	Less: Line losses at 6% rate = 1,185 <u>Equals:</u> 18,564 GWh	IOU 67.6% Public 10.1% Federal 0.9% Coop 21.4% 22,038 GWh	20% in 2020; applies to IOUs 10% in 2020; applies to Coops	IOUs must meet “diversified” RPS portfolio minimums: solar 20%; wind 20%; biomass or geothermal 10%; distributed generation 3%.	IOUs: 18,564 GWh x 67.6% (share) <u>x 20% (RPS%)</u> = 2,510 GWh Coops: 18,564 GWh x 21.4% (share) <u>x 10% (RPS%)</u> = 397 GWh Total NM RE: 2,907 GWh
Oregon						
PGE = 23,569 PACW = 15,046 (72.5% of PACW) BPA = 18,316 (32.47% of BPA) IPC = 1,452 (7.4% of IPA) <hr/> 58,382 GWh	TBD	Less: Line losses at 6% rate = 3,503 <u>Equals:</u> 54,879 GWh	OR defines 3 categories of entities subject to for RPS% rates based on utility retail sales to total OR sales: “Large Utilities” more than 3% in OR Group serves 74.5% of 2008	20% by 2020; applies to “Large Utilities” 6.67% applies to “Small Utilities”. Based on pro rate of 10% by 2025 with no interim targets. 0% by 2020	Utilities may comply with banked RECs	Largest Utilities: 54,879 GWh x 74.5% (share) <u>x 20% (RPS%)</u> = 8,174 GWh Small Utilities: 54,879 GWh x 12.0% (share) <u>x 6.67% (RPS%)</u> = 440 GWh Total OR RE: 8,614 GWh

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			<p>OR load.</p> <p>“Smaller Utilities” btw 3% and 1.5% in OR. Group serves 12.0% of 2008 load.</p> <p>“Smallest Utilities” less than 1.5% in OR. Group serves 13.5% of OR load.</p> <p>EIA data on OR sales: 49,187 GWh</p>	<p>applied to “Smallest Utilities”. <i>De minimus</i> given 5% by 2025 with no interim targets and sector size.</p>		<p>Need to adjust for banked RECs in 2020. One option is to represent the net effect of REC banking with a 15% RPS for the largest utilities.</p>
Texas in WI						
<p>EPE = 8,483 (79.54% of EPE)</p> <hr/> <p>= 8,483 GWh</p>	TBD		N.A.	5% in 2020	<p>Note: Renewable energy production requirement statewide: 5880 MW by 2015 (about 5% of state sales)</p>	<p>8,483 GWh <u>x 5% (RPS%)</u> = 424 GWh</p>

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Utah						
PACE = 38,047 (67.81% of PACE) <hr/> = 38,047 GWh	TBD	Less: Line losses at 6% rate = 2,283 <u>Equals:</u> 35,764 GWh	IOU 80.4% Public 15.8% Federal 0.2 % Coop 3.7% 28,192 GWh	13.3 % in 2020 Applies IOUs, Municipals, and Coops	Note: 13.3 % RPS based on attaining “goal” of 20% in 2025 using linear extrapolation from 2010 to 2025. No interim requirements with first compliance year of 2025.	IOUs, Municipals and Coops 35,764 GWh x 99.8% (share) <u>x 13.3% (RPS%)</u> = 4,747 GWh
Washington						
BPA = 35,209 (62.41% of BPA) AVA = 9,287 (61.59% of AVA) PACW = 4,672 (22.51% of PACW) PSE = 26,482 SCL = 10,929 TPWR = 5,438 CHPD = 4,080 DOPD = 2,148 GCPD = 5,198 <hr/> = 103,442 GWh	TBD	Less: Line losses at 6% rate = 6,207 <u>Equals:</u> 97,236 GWh	WA RPS applies to utilities serving more than 25,000 customers, or 17 utilities that make up about 84% of the WA load 2008 WA Sales, EIA: 87,333 GWh	15% in 2020		97,236 GWh x 84% (share) <u>x 15% (RPS%)</u> = 12,252 GWh

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Wyoming						
PACE = 13,842 (24.67% of PACE) WACM = 10,124 (34.0% of WACM) = 23,965 GWh	TBD	Less: Line losses at 6% rate = 1,438 <u>Equals:</u> 22,527 GWh	IOU 64.7% Public 3.7% Federal 0.2 % Coop 31.4% 28,192 GWh	No RPS		
Alberta						
AESO = 108,555 = 108,555 GWh	TBD	Less: Line losses at 6% rate = 6,513 <u>Equals:</u> 102,042 GWh	N.A.	No RPS		
British Columbia						
BCHA = 63,241 = 63,241 GWh	TBD	Less: Line losses at 6% rate = 3,794 <u>Equals:</u> 59,447 GWh	N.A.	No RPS		
Mexico, Baja Norte						
CFE = 17,484 = 17,484 GWh	TBD	Less: Line losses at 6% rate = 1,049 <u>Equals:</u> 16,435 GWh	N.A.	No RPS		

Balancing Areas with 2020 Load Forecasts in the Western Interconnection

BA	Name	State/Prov.
AESO	Alberta Electric System Operator	AB
APS	Arizona Public Service	AZ
AVA	Avista Corp.	WA/ID
BCHA	British Columbia Hydro	BC
BPA	Bonneville Power Administration	WA/OR/ID/MT
CFE	Comision Federal de Electricidad	Mex
CHPD	PUD No. 1 of Chelan County	WA
CISO	California Independent System Operator	CA
DOPD	PUD No. 1 of Douglas County	WA
EPE	El Paso Electric Company	TX/NM
GCPD	PUD No. 2 of Grant County	WA
IID	Imperial Irrigation District	CA
IPC	Idaho Power Co.	ID/OR
LDWP	Los Angeles Dept of Water and Power	CA
NEVP	Nevada Power Company	NV
NWMT	NorthWestern Energy	MT
PACE	PacifiCorp -- East	UT/WY/ID
PACW	PacifiCorp -- West	OR/WA/CA
PGE	Portland General Electric	OR
PNM	Public Service Company New Mexico	NM
PSC	Public Service Company Colorado	CO
PSE	Puget Sound Energy	WA
SCL	Seattle Department of Lighting	WA
SMUD	Sacramento Municipal Utility District	CA
SPP	Sierra Pacific Power	NV
SRP	Salt River Project	AZ
TEP	Tucson Electric Power	AZ
TIDC	Turlock Irrigation District	CA
TPWR	Tacoma Power	WA
WACM	WAPA - Colorado Missouri Region	CO/WY
WALC	WAPA - Lower Colorado Region	AZ/NM
WAUW	WAPA - Upper Great Plains West	MT