

2019 IRP Electric Supply-Side Resources - Renewables

Draft 7/24/18

2018 \$	Units	On-Shore Wind - MT (Site #1)	On-Shore Wind - MT (Site #2)	On-Shore Wind - SE Wash.	Offshore Wind - WA Coast	Solar PV - WA	Biomass	
ISO Capacity Primary	MW	100	100	100	300	25	15	
Winter Capacity Primary	MW							
Capacity Credit	%							
Operating Reserves	%	3%	3%	3%	3%	3%	3%	
Capacity Factor	%	35.5%	42.4%	31.9%	29.3%	24.2%	85%	
Capital Cost	\$/KW	\$1,913	\$1,913	\$1,939	\$6,480	\$1,543	\$9,067	
O&M Fixed	\$/KW-yr	\$37.00	\$37.00	\$37.00	\$120.00	\$27.19	\$345.20	
O&M Variable	\$/MWh	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6.60	
Land Area	acres/MW	48.2	48.2	48.2		5 - 7	6 - 8	
Degradation	%/year	0	0	0	0	0.50%	N/A	
Location	-	Central MT	Eastern MT	Eastern WA	Coast of WA	Eastern WA	Western WA	
Fixed Transmission	\$/KW-yr	\$53.38	\$53.38	\$33.66	\$33.66	\$24.06	\$21.54	
Variable Transmission	\$/MWh							
Loss Factor to PSE	%	9.6%	9.6%	1.9%	1.9%	1.9%	1.9%	
Heat Rate – Baseload (HHV)	Btu/KWh							14,972
Emissions:								
NO _x	lbs/MMBtu							0.03
SO ₂	lbs/MMBtu							0.03
CO ₂	lbs/MMBtu	0.30						
First Year Available		2022	2022	2022	2024	2021	2021	
Economic Life	Years	25	25	25	25	20	30	
Greenfield Dev. & Const. Leadtime	years	2.0	2.0	2.0	3.2	1.0	3.3	