

Energy Facility Siting in Oregon Clean Energy Needs



What is the status of EFSC and county jurisdictional energy facilities and how does that compare to Oregon's clean energy needs?

Scenario Models to 100 Percent Clean Electricity and Deep Decarbonization by 2050



Original Study: Oregon Clean Energy Pathways - Evolved Energy Research

The 100 percent clean energy by 2050 scenario evaluated in the study above (circled in red) identified a need to develop the following renewable electricity generation resources in Oregon through 2050 to achieve the state's policy objectives:

Resource	2020	2050	Percent Growth
Solar	500 MW	10,550 MW	2,000%
Onshore Wind	3,210 MW	4,970 MW	55%
Offshore Wind	0 MW	20,250 MW	-



Solar | 10,550 MW Needed by 2050

- EFSC's first solar application was submitted in late 2017. County jurisdictional projects started as early as 2009, but the majority are 2016 and later.
- Seventeen years remain to reach the 2040 goal date in the Renewable Portfolio Standard statute . and 27 years to reach the 2050 goal in the model.
- If all currently active Energy Facility Siting Council and county solar projects are approved and ٠ constructed, it would be equivalent to 46 percent of the stated need.
- If constructed, all active EFSC solar projects would occupy 39,526 acres, or 61.7 square miles. All approved county solar projects on Exclusive Farm Use zoned land^[1] would occupy 18,290 acres,

^[1] 2020-2021 Oregon Farm and Forest Land Use Report - Table 11 – Page 25

or 28.5 square miles. In total, 57,816 acres or 90 square miles. For context, according to Wikipedia, the four biggest cities in Oregon by square miles are Portland (145), Salem (48), Eugene (43) and Bend (33).

• ODOE and County staffs continue to have conversations with developers regarding potential new solar projects.

1 Onshore Wind – 4,970 MW Needed by 2050

- If all active EFSC and county wind projects are approved and constructed, it would be equivalent to 108 percent of the stated need.
- ODOE and County staffs continue to have conversations with developers regarding potential new onshore wind projects.

Overview of Current Project Permitting

Generation Status	Wind MW	Solar MW	Geothermal MW	Battery	Total MW		
EFSC Projects							
Operational	2,719	50	-	5	2,774		
In Construction	194	362	-	-	556		
Approved But Not Built (Approval Still Valid)	421	862	-	463	1,696		
Under Review	340	2,455	-	2,340	5,185		
Subtotal	3,674	3,729	-	2,808	10,211		
County Projects							
Operational	1,371	753			2,123		
Under Development (Approved and not built or under construction)	337	364			701		
Subtotal	1,708	1,116			2,824		
Total MW	5,382	4,845		2,808	13,035		

ODOE publishes a monthly update on siting projects under review: <u>https://www.oregon.gov/energy/facilities-safety/facilities/Pages/EFSC-Project-Updates.aspx</u>