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Utah's Diverse Energy Portfolio

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Utah possesses diverse energy resources ranging from crude oil and natural gas in the Uinta and Paradox Basins to renewable energies such as solar, wind, geothermal, hydro, and biomass.

Utah's energy resources will continue to diversify. For example, Utah is the nation's ninth largest crude oil producer. In previous years, the Uinta Basin supplied only local refineries on the Wasatch Front. The state now transports Uinta crude oil to Gulf Coast refineries that produce low-sulfur marine bunker fuels and automobile lubricants.

In terms of renewable energies, the unsubsidized cost to generate electricity from solar energy has decreased by 83% since 2009.[1] The University of Utah's Frontier Observatory for Research in Geothermal Energy (FORGE) will make the Beehive State a leader in geothermal energy.

While Utah's energy resources are expected to continue to diversify, this brief focuses on Utah's solar energy resources and the state's planned expansion for solar in the future.

Utah's Solar Energy in the National Picture

Utah is one of seven southwestern states with high solar potential. Energy companies leverage this solar potential by installing photovoltaic panels that transform sunlight into electricity supplied to the grid. Solar energy provides 13% of Utah's electricity.[2]

Utah's Solar Energy Highlights

Installed photovoltaic solar panels in the state currently capture 3,000 megawatts (MW)—enough electricity to power over a half million homes. Planned solar projects in 2024 and 2025 will increase Utah's solar-generated electricity by over 50%.

The largest planned solar project is Meta's Faraday that will generate 673 MW electricity supporting Meta's Facebook and Instagram traffic. A consortium of ten international banks, including Zions Bank, support the $1.3 billion project.

The remainder of the 2024/2025 queue of planned solar projects is below (Table 1).

In terms of employment, solar projects created 7,300 Utah jobs in 2022.[2]

- 80% of solar jobs involved front-end work such as panel installation.
- 2% of solar jobs are ongoing (operations and maintenance).

Overcoming Obstacles

Locating solar projects on federal lands with access to the electricity grid are obstacles for the state. In response to these obstacles, the U.S. Bureau of Land Management recently proposed opening 22 million acres for developing solar projects on public lands in eleven western states, including Utah.[3]

Table 1: Utah Solar Projects, 2024/2025

Project Name	MW	County
2024		
Steel Solar	80	Box Elder
Rocket Solar	80	Box Elder
Elektron Solar	80	Tooele
Horseshoe Solar	75	Tooele
Castle Solar 1	40	Emery
Parawan Solar	48	Iron
Apaloosa Solar 1	120	Iron
MW's added in 2024	**523**	
2025		
Glen Canyon Solar A	95	Kane
Faraday Solar	673	Utah
Notch Peak Solar	324	Millard
Gate 1 Solar	300	Millard
Utah Solar 1	300	Millard
MW's added in 2025	**1,682**	
TOTAL MEGAWATTS ADDED	**2,215**	

Source: Solar Energy Industries Association, Major Solar Projects List (Jan 2024)
www.seia.org/research/major-solar-projects-list

1. Lazard's Levelized Cost of Energy Analysis, April 2023, www.lazard.com
2. Solar Energy Industries Association, State Solar Spotlight, December 2023, seia.org/states
3. Utility Dive, Dive Brief, January 18, 2024, www.utilitydive.com