Texas Solar Market Update

Texas Solar Energy Society – 2020 Annual Meeting
2/1/20
Texas Solar Power Association

Logos of various solar power companies are displayed.
Looking back on Summer 2019: Solar produced on peak as expected

Generation on Peak Demand Day of August 12

Source: ERCOT Oct 11, 2019 presentation to PUCT
Initial utility-scale solar plants sited in central TX (2010-2015):

- Blue Wing (14.9 MW)
- Centennial Solar (19.8 MW)
- Webberville (26.7 MW)
- Alamo Solar 1 + 4 (39.2 + 38 MW)

New build out of larger west TX plants (2016-present):

- Upton Solar 2: Vistra (180 MW)
- Roserock: Recurrent / Southern (157 MW)
- East Pecos: First Solar / Southern (121 MW)
- Alamo Solar 6: OCI / Berkshire (108 MW)
- CED Upton: ConEdison (158 MW)

*Source: ERCOT*
Corporate demand takes off

- Recent utility-scale solar deals in Texas announced with Anheuser-Busch, Honda, Apple, Google, Microsoft, Target, and others

- Facebook investing directly in 379 MW solar project north of Odessa

- Starbucks announces contract with 50 MW of solar generation across multiple sites to power 360 Texas stores, plus investment in additional sites
Innovative deals bring solar to new customers

- **Competitive retail market**: NRG signs solar power purchase agreements totaling 1,300 MW to serve their retail customers

- **Municipal utilities**: New Braunfels Utilities organizes combo 500 MW solar RFP with Bryan, Denton, Garland, and Kerrville

- **Co-op utilities**: Brazos Electric Power Co-op contracts for 94 MW on behalf of CoServ and seven of their other distribution co-op members

- **Public entities**: Through the State Energy Conservation Office, Texas Energy Aggregation is organizing a group procurement to provide long-term low-cost solar to state agencies, cities, universities, and hospital districts

Aggregated procurements enable smaller utilities and retail customers to access low-cost solar from large-scale solar facilities
Solar powering Texas oil & gas operations

- Occidental Petroleum builds 16 MW solar plant in Ector County to provide on-site power for Goldsmith oilfield operations

- Through its Oxy Low Carbon Ventures subsidiary, the company also signed a long-term power purchase agreement for 109 MW of solar power for use in its Permian operations beginning in 2021

- ExxonMobil, Shell Energy, and Baker Hughes recently announced PPAs for 500+ MW of large-scale solar generation

*Photo credit: Jacy Lewis, Midland Reporter-Telegram*
Looking ahead:
Significant near-term growth

Source: ERCOT
Solar power is expanding statewide

- 50 counties have large-scale solar projects online or that have signed agreements for grid interconnection
- More than 100 distinct projects

Source: ERCOT, SPP, MISO, EPE
Solar adds peak generation capacity and diversifies the portfolio

Source: ERCOT
Solar growth is boosting generation reserves and grid reliability

Source: ERCOT Capacity, Demand, Reserves report December 2019
Future solar development continues

- 112 counties have seen significant solar development activity, meaning a project has at least reached the Full Interconnection Study phase

- Not all of these projects would be expected to come online anytime soon but they indicate strong industry activity and landowner interest

Source: ERCOT, SPP, MISO, EPE
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