

Renewable Sources of Energy

The states AEP serves, other than Kentucky, West Virginia and Tennessee, have established mandatory or voluntary programs to increase the use of energy efficiency, alternative energy or renewable energy sources.

As of December 31, 2018, AEP's regulated utilities had long-term contracts for 2,750 MWs of wind and 10 MWs of solar power delivering renewable energy to the companies' customers. In addition, I&M owns four solar projects that make up I&M's 15 MW Clean Energy Solar Pilot Project. Management actively manages AEP's compliance position and is on pace to meet the relevant requirements or benchmarks in each applicable jurisdiction.

The growth of AEP's renewable portfolio reflects the company's strategy to diversify its generation resources to provide clean energy options to customers. In addition to gradually reducing AEP's reliance on coal-fueled generating units, the growth of renewables and natural gas helps AEP to maintain a diversity of generation resources.

The integrated resource plans filed with state regulatory commissions by AEP's regulated utility subsidiaries reflect AEP's renewable strategy to balance reliability and cost with customers' desire for clean energy in a carbon-constrained world. AEP has committed significant capital investments to modernize the electric grid and integrate these new resources. Transmission assets of the AEP System interconnect approximately 11,900 MWs of renewable energy resources. AEP's transmission development initiatives are designed to facilitate the interconnection of additional renewable energy resources.

AEP Energy Supply, LLC owned 261 MWs of wind capacity in Texas as of December 31, 2018. AEP Renewables, LLC develops and/or acquires large scale renewable projects backed with long-term contracts with creditworthy counterparties. As of December 2018, AEP Renewables, LLC owned two 20 MW solar projects in California and Utah and a 50 MW solar project in Nevada. In December 2018, AEP Renewables, LLC entered into an agreement to own an additional 227 MWs of Texas wind capacity which is expected to be placed in-service in mid-2019.

AEP OnSite Partners, LLC works directly with wholesale and large retail customers to provide tailored solutions to reduce their energy costs based upon market knowledge, innovative applications of technology and deal structuring capabilities. The company targets opportunities in distributed solar, combined heat and power, energy storage, waste heat recovery, energy efficiency, peaking generation and other energy solutions that create value for customers. AEP OnSite Partners, LLC pursues and develops behind the meter projects with creditworthy customers. As of December 31, 2018, AEP OnSite Partners, LLC owned projects operating in 15 states, including approximately 85 MWs of installed solar capacity, and approximately 57 MWs of solar projects under construction.

In February 2019, AEP Clean Energy Resources, LLC signed an agreement to purchase Sempra Renewables, LLC and its 724 MWs of wind generation and battery assets for approximately \$1.1 billion, subject to closing and working capital adjustments. As part of the purchase price, AEP Clean Energy Resources, LLC will pay \$551 million in cash and assume \$343 million of existing project debt obligations of the non-consolidated joint ventures. Additionally, the acquisition will be accompanied by the recognition of non-controlling tax equity interest of \$162 million associated with certain of the acquired wind farms. The wind generation portfolio includes seven wholly or jointly-owned wind farms with long-term PPAs for 100% of their energy production. The transaction is expected to close in mid-2019 and is subject to regulatory approvals from the FERC and federal clearance pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

Competitive Renewable Generation Facilities

Size of Energy Resource	AEP Entity	Renewable Energy Resource	Location	In-Service or Under Construction
261 MW	AEP Energy Supply LLC	Wind	Texas	In-service
20 MW	AEP Renewables, LLC	Solar	California	In-service
20 MW	AEP Renewables, LLC	Solar	Utah	In-service
50 MW	AEP Renewables, LLC	Solar	Nevada	In-service
85 MW	AEP OnSite Partners, LLC	Solar	Fifteen states (a)	In-service
57 MW	AEP OnSite Partners, LLC	Solar	Four states (b)	Under Construction

(a) California, Colorado, Connecticut, Florida, Hawaii, Minnesota, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Ohio, Rhode Island, Texas and Vermont.

(b) California, Minnesota, New Mexico and Hawaii.