

Calculations to estimate Missouri's need for renewables

To estimate the total amount of renewable energy needed for Missouri to meet its 2021 Renewable Energy Standard (RES) target, I first estimated the total 2021 electricity demand (A). This estimate was based on 2015 sales¹ that were increased according to the projected increase in electricity demand for the Missouri region.² Missouri's RES only applies to investor-owned utilities, who according to the most recent EIA data, account for about 69 percent of the state's retail sales (B). The result is that 57 million MWh of 2021 electric demand is subject to the RES (C). In order for 15% of this future demand to be met with renewables, Missouri will need 9 million MWh of renewable energy supply (E).

83	A: Projected 2021 Missouri electric retail sales (million MWh)
69%	B: Percentage of Missouri electric sales that are subject to the RES
57	C = A x B: 2021 electric retail sales that are subject to the RES (million MWh)
15%	D: Renewable Electricity Standard 2021 requirement
9	E = C x D: Missouri's 2021 need for renewables (million MWh)

¹ EIA Detailed State Data. "Retail Sales of Electricity by State by Sector by Provider." Available online at <http://www.eia.gov/electricity/data/state/>. (Last accessed on May 10, 2016).

² EIA 2014 Annual Energy Outlook. "Electric Power Projections for Electricity Market Module Regions." Available online at http://www.eia.gov/forecasts/aeo/er/tables_ref.cfm. (Last accessed on May 10, 2016).

EIA Detailed State Data. "Retail Electricity Sales Statistics, 2010." Available online at <http://www.eia.gov/electricity/state/missouri/index.cfm>. (Last accessed on May 10, 2016).