

Map of Power Grid Queue Shows Missouri's Clean Energy Potential — and Problems at MISO as Projects are Withdrawn

https://arcg.is/1WOODv

NRDC's Sustainable FERC Project has created an <u>interactive online map</u> showing the potential for clean energy development in the Midwest and South, as well as the bottleneck as projects drop out of the <u>Queue</u> of the **Midcontinent Independent System Operator (MISO)**, the region's electricity grid operator. The map analyzes all wind, solar, hybrid and energy-storage projects by state and county, ¹ from January 1, 2016 - October 15, 2020.

With <u>Missouri utilities like Ameren</u> and <u>cities like St. Louis announcing goals of reaching 100% clean</u> <u>energy</u> in the coming decades, the active renewable energy projects in the MISO Queue hold promise.

However, many projects are being withdrawn because the lack of grid capacity across large swaths of the MISO regional grid can result in very high interconnection costs² for developers of cheap, renewable electricity sources – like wind farms in Missouri – who submit their projects to the MISO Queue.

- In total, 12 solar, wind, battery storage, and hybrid solar-storage projects planned for Missouri were withdrawn from the MISO Queue over the last four years.
- If developed, these withdrawn projects would have supplied nearly **1,760 megawatts** of clean energy, **enough to power more than 491,000 homes.**³
- They would have **created 2,288 jobs in Missouri**. ⁴ The median wage for jobs in clean energy is about **\$24.50 an hour**.
- Missouri still has 27 renewable energy projects active in the MISO Queue, that will supply 4,714
 megawatts of clean energy if they are built.

MISO Interconnection Queue: State Clean Energy Projects Totals (full <u>Summary Table</u>)							
Missouri	Project Type	# Active projects	Total MW Active	# With- drawn projects	Total MW Withdrawn	# Projects Active + Withdrawn	Total MW Active + Withdrawn
	Solar	21	3,864	6	710.23	27	4,574.23
	Wind	4	750	6	1,050.05	10	1,800.05
	Hybrid	-	-	-	-	-	-
	Storage	2	100	-	-	2	100
	TOTAL	27	4,714	12	1,760.28	39	6,474.28

Notes:

- ¹ Analysis included *all* active projects but only a *subset* of withdrawn projects those that were furthest along in the generator interconnection process, in Phase II or III or with a generator interconnection agreement (GIA).
- ² Generator interconnection cost analysis according to <u>AWEA</u>, <u>SEIA</u> and the <u>Clean Grid Alliance</u>.
- ³ Annual average multiplier of 175 homes/MW of solar from <u>SEIA</u>, and 350 homes/MW of wind from <u>AWEA</u>.
- ⁴ Utility-scale solar projects create an average of 3.3 jobs/MW according to <u>SEIA</u>. Wind projects create an average of 0.9 jobs/MW according to NRDC analysis. Median wages according to <u>E2</u>.

For more information on this data analysis or on grid solutions and clean energy in MISO's territory, please contact Andy Kowalczyk at <u>a.kowalczyk35ono@gmail.com</u>.

