The Livestream Power Dialog will begin at

5:00PM CST

Thank you for joining us!

SØLVE NATES

CLIMATE SOLUTIONS FOR MISSOURI - A NATIONAL DIGITAL TEACH-IN TUESDAY, APRIL 7, 2020, 5:00-6:00PM CT

Looking for support with online teaching - Assign this webinar (live or recorded) and use the <u>multi-</u> <u>disciplinary guides</u> on our website to follow-up with your HS or collegiate level class.

Livestream Power Dialog 5:00 - 5:10 pm Welcome to Power Dialogue - Solve Climate by 2030 5:10 - 5:45 pm Climate Solutions Danel - Three Misses

Climate Solutions Panel - Three Missouri Climate Leaders will discuss solutions to move us towards Solving Climate by 2030

5:45 - 6:00 pm Panel Discussion

Moderator Phil Valko Assistant Vice-Chancellor for Sustainability Washington University

Panelists

John Hickey Missouri Chapter Director Sierra Club

Andrew Linhares Regional Director & Senior Counsel Renew Missouri

Gwen Mizell VP of Sustainability and Electrification Ameren



Washington University in St. Louis www.climatechange.wustl.edu

UTILITIES AND CLEAN ENERGY POLICY IN MISSOURI

Renew Missouri: Statewide and local advocates for clean energy policy, based in Columbia with offices in St. Louis and Kansas City.

Topics to Cover:

- How is energy policy set up in Missouri?
- What is the state of solar, wind, and energy efficiency in Missouri?
- Where are we going?

Andrew Linhares

Renew Missouri

renev

Regional Director & Senior Counsel

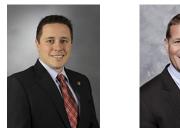
Andrew@renewmo.org



Utility regulation in Missouri

The Missouri Public Service Commission (PSC) (1913)

- Regulates electric, natural gas, water, and sewer utilities (also some jurisdiction over telecommunications companies, manufactured and modular homes)
- 5 Commissioners appointed by Governor, confirmed by Senate









- Powers given by the Legislature. Duty to "ensure that all Missourians receive safe, reliable utility services at just, reasonable, and affordable rates."
- Missouri is a "Regulated State" (like MI, MN, WI, IA, CO)
- E.g. Ameren is a "monopoly" utility
 - Has a PSC-designated geographic territory (lack of choice)
 - Earns a specified rate of return on all investments
 - Accountable to both the PSC and its shareholders



CLEAN ENERGY IN MISSOURI

Renewable Energy: Missouri is between 10-15%

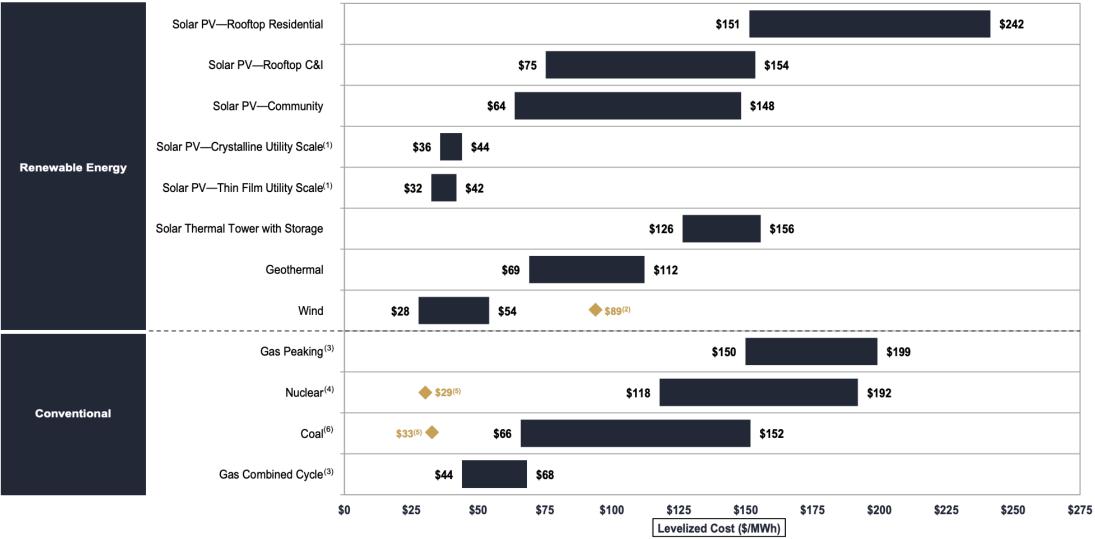
- Ranked 43rd / 50 states, but improving
- Ranked 32nd in customer choice, while neighboring states are much higher (IA = #1, IL = #2, TX = #5)
- Energy Efficiency
 - Ranked 30th / 50 states

Source	Attributes
Energy Efficiency	Using less power for the same end use.
	Utilities can encourage through programs offering rebates/incentives.
	Cheapest resource available to invest in for utilities and customers.
Wind Energy	Largest source of renewable energy in Missouri.
	Cheapest source of new electricity generation.
	Northwest Missouri, Kansas, and Iowa are prime locations for wind.
Solar Energy	Fastest-growing source of renewable energy in the world.
	Can be located at point of use, creating ancillary benefits to the grid.
Energy Storage	Can help solve problem of intermittency.
	Can reduce need for peaker plants and utilize all power produced onsite.



Levelized Cost of Energy Comparison—Unsubsidized Analysis

Selected renewable energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances



Source: Lazard estimates.

WHERE DO WE GO FROM HERE?

Policy Goals in Missouri

• *Remove Barriers to Access Renewables*:

 Raise net metering caps and allow for energy contracts (PPAs) between renewable developers and large customers.

• Take Advantage of Existing Utility Programs:

 Residential and commercial customers can make huge investments in EE by using rebates and incentives; large customers can purchase wind energy from Ameren's "Renewable Choice" program; residential and small business customers can get half their electricity from local solar through Ameren's "Community Solar" program.

• *Commit to 100% Clean Energy*:

• Our existing RES law (15% by 2021) is out of date, and a new ambitious goal is needed to focus development for the future and chart a clear path to a clean energy future.



Sustainability

Gwen Mizell

Vice President

Sustainability and Electrification

Ameren Corporation



Sustainability

"Meeting the needs of the present, without compromising the ability of future generations to meet theirs".



Environmental Conservation & protection of the natural environment



Social Relationships with employees, suppliers, & communities



Governance Standards for company leadership, risk controls, & shareholder rights

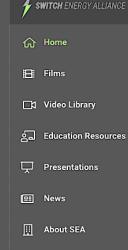
Sustainability

Ameren

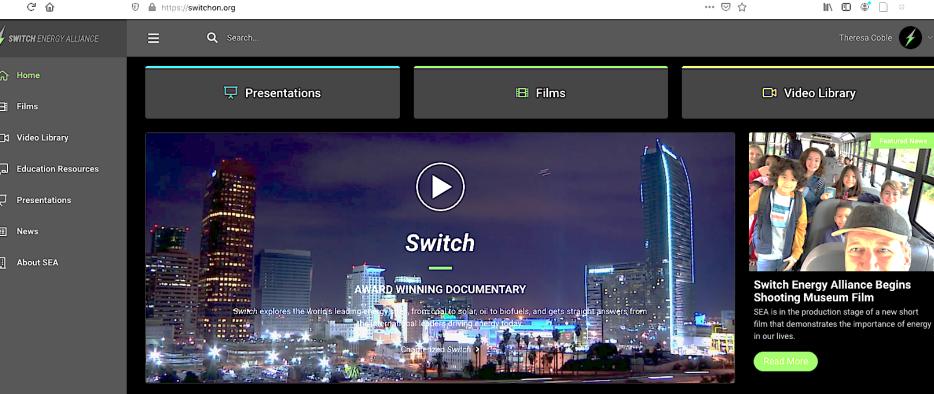
Innovative Programs to Meet Customer Needs and Rising Expectations



SWITCH ENERGY ALLIANCE



https://switchon.org/ **SWITCH makes learning** about energy systems fun and engaging.



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Switch Energy Case Competition

case competitions

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