



Helping Regulators Identify the IRA Opportunities for an Affordable Energy Transition

IRA Implementation Guide Webinar

December 14, 2023

Agenda

- **Introduction**
- **Key Findings**
- **Clean Repowering**
- **IRA-enabled savings**
- **Recommendations**

About RMI

Helped inform key provisions of the IRA

Advised 14 utilities about IRA financing programs

Provided technical assistance to 15 commissions on IRA Provisions

Educated countless other stakeholders (advocates, large energy buyers, etc.)

About RMI

Speakers

Additional Experts



Joe Daniel
Principal



Becky Li
Manager



Jeff Sward
Senior Associate



Maria Castillo
Senior Associate



Christian Fong
Senior Associate



Jacob Becker
Associate



Diego Angel Hakim
Manager



Alex Engel
Manager



David Posner
Manager



Katie Seigner
Manager



Uday Varadarajan
Senior Principal

The Inflation Reduction Act has created enormous opportunities for an affordable, reliable energy transition

ENERGYWIRE

Michigan's largest utility aims to close coal plants by 2035

DTE Energy submitted a 20-year plan Thursday that would replace aging coal plants with natural gas and 18,000 megawatts of renewable generation. The utility's president said the Inflation Reduction Act made the switch "much more affordable."

ENERGY & ENVIRONMENT

PG&E applies for federal loan to bolster California's electricity grid

'First-of-a-kind' \$1.5bn US wind power deal in bag thanks to IRA green law

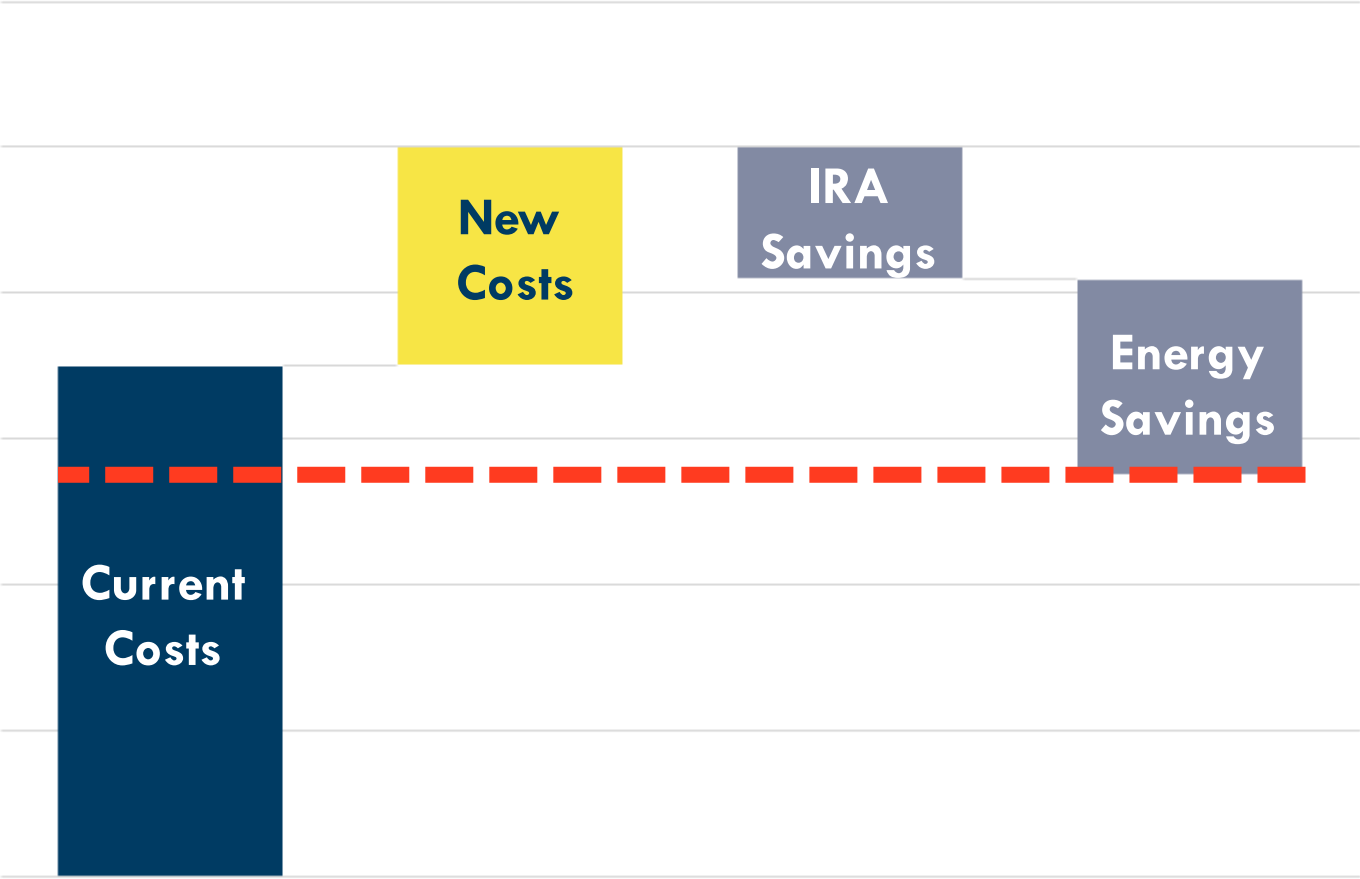
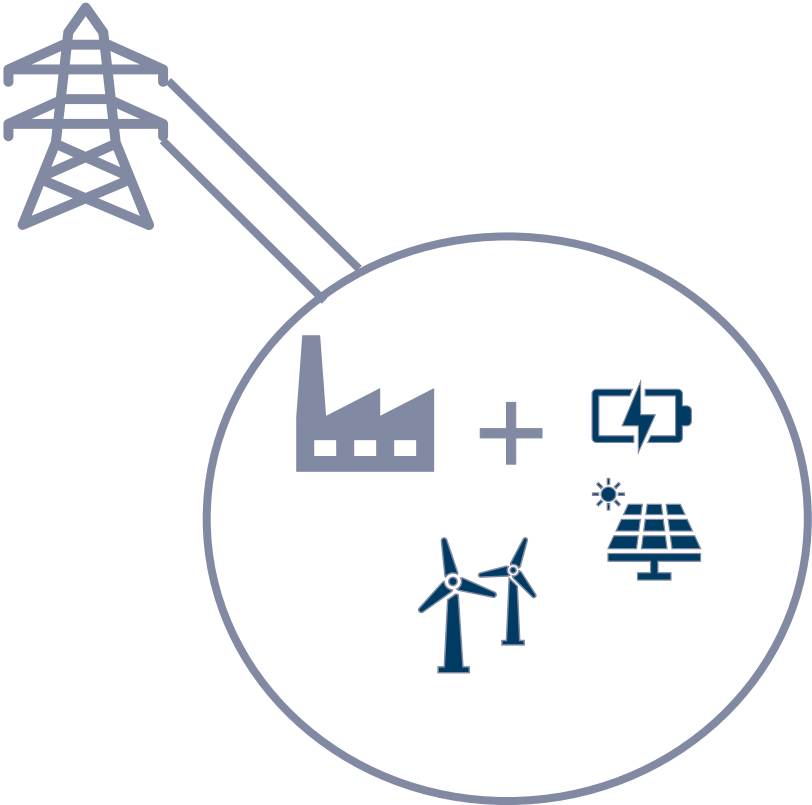
Invenergy-led acquisition of 1.4GW AEP asset portfolio closes with tax credit transfer

\$433 billion
in new energy sector investment

Source: CBO

Window of opportunity for no regrets action

Clean Repowering: What is it and why now?



Key Findings

Clean Repowering

250 GW immediate opportunity for clean energy deployment across the country.

IRA Incentives

\$25 billion/year in ratepayer savings (on average) if IRA benefits are optimized

What makes clean repowering no regrets?

Key benefits of using surplus interconnection and generator replacement



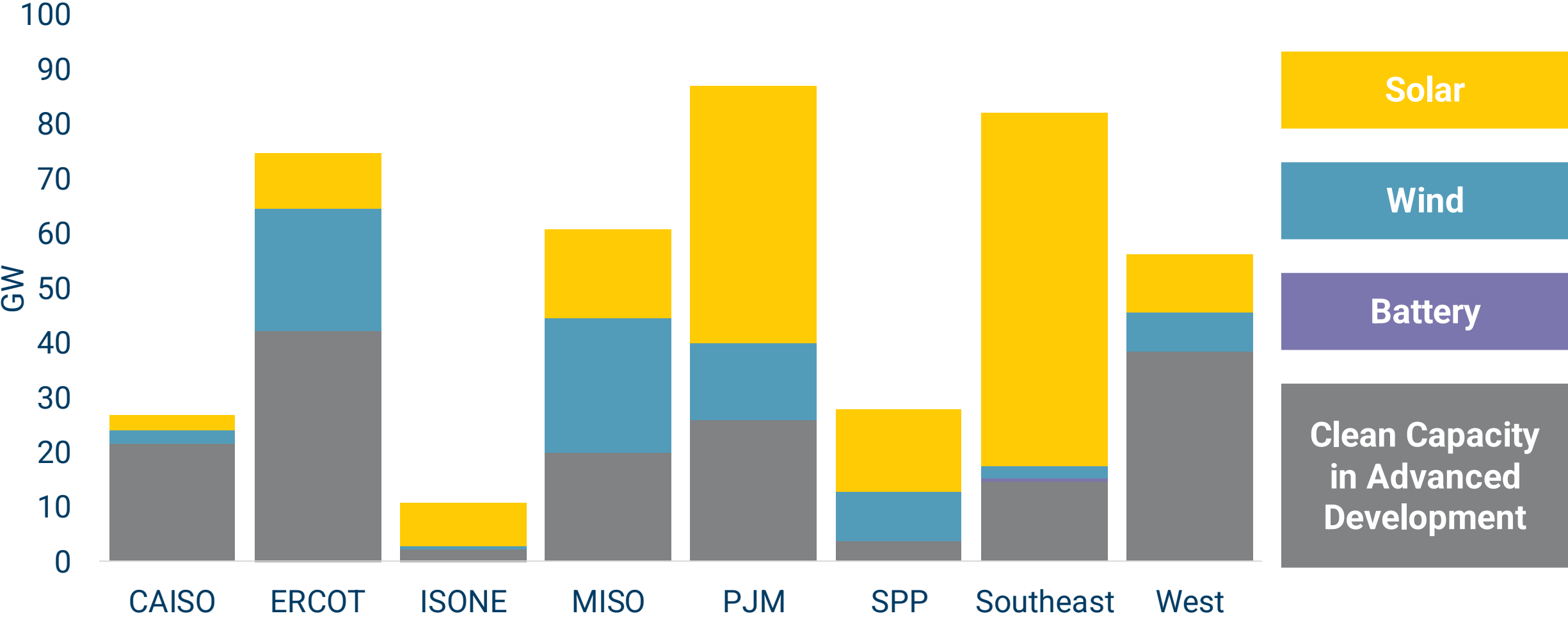
Improves reliability while reducing operating cost



Accelerates clean deployment while reducing deployment cost

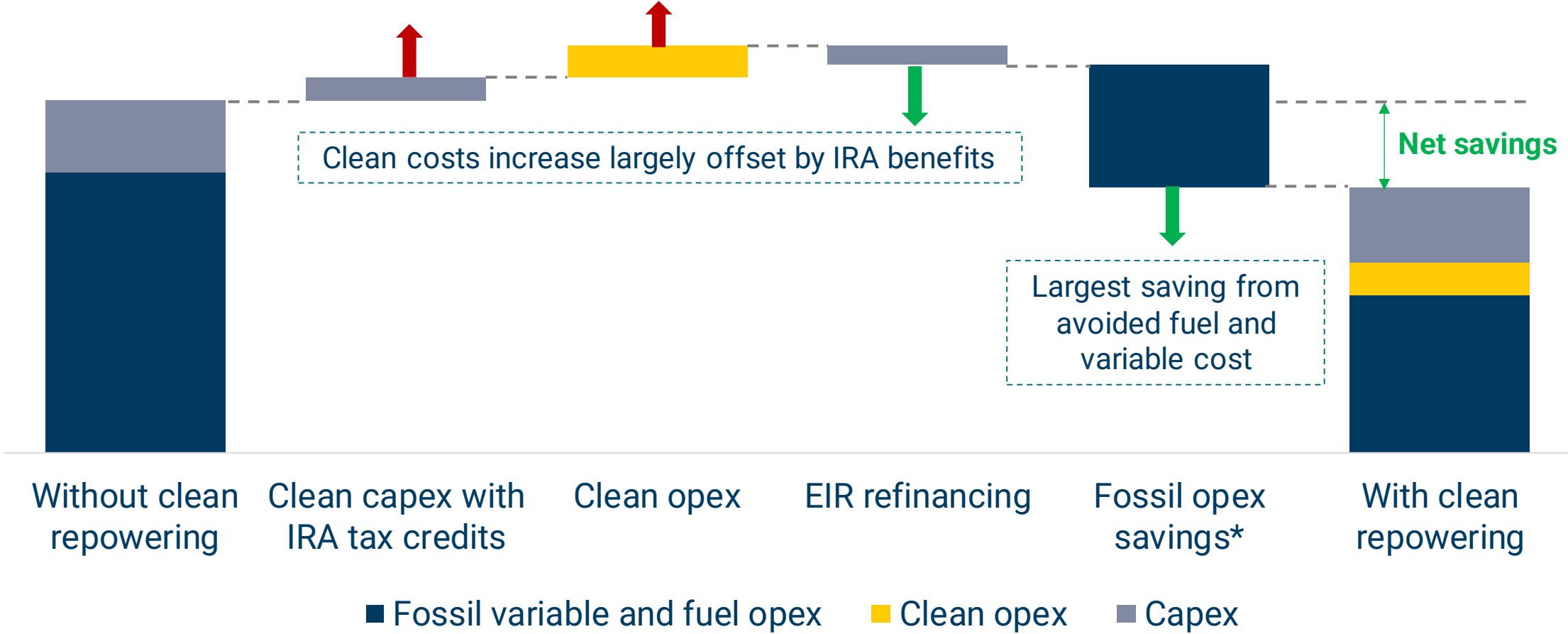
- Simpler interconnection process
- Reuse of existing infrastructure
- Additional IRA incentives

Clean repowering is a 250 GW opportunity concentrated in MISO, PJM and the Southeast



Clean repowering creates savings by reducing fossil operations and offsetting clean investment with IRA incentives

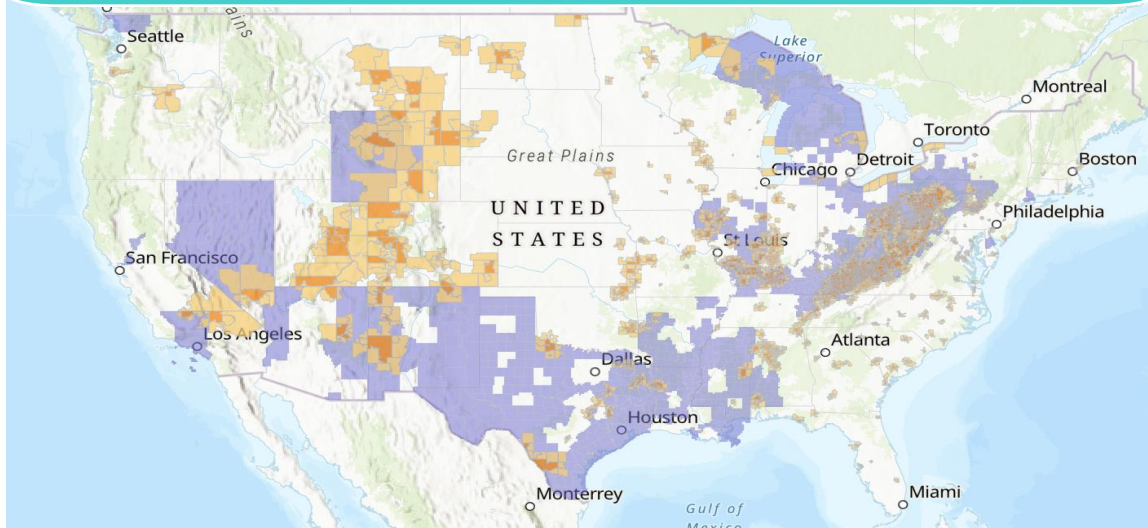
Illustrative Breakdown in Net Present Value of Ratepayer Cost Changes



*Including additional start up and ramp costs from lower utilization

The IRA improves the economics of the clean repowering opportunity: Tax credits

Energy Community Tax Credit Bonus



- ✓ Projects qualify for a 10% bonus on the ITC and PTC if they are:
 - Located in or adjoining a coal closure (mine or power plant) community
 - On a site considered brownfield
 - In a Metropolitan statistical area (MSA) that has fossil employment above .17% **and** an unemployment rate that is higher than average

Direct Pay

- ✓ States, localities, tribes, coops and nonprofits receive a direct payment for the dollar value of the tax credit

Tax Credit Transfer

- ✓ Entities claiming tax credits can sell them to other buyers for cash, creating a tax credit transfer market

The IRA improves the economics of the clean repowering opportunity: DOE EIR program

Loan Program Office's (LPO) Energy Infrastructure Reinvestment (EIR) Program

Opportunity

\$250 Billion in direct loan or loan guarantee authority

Can cover up to 80% of project costs at low interest rates* and be repaid over a 30-year term

Funds must be committed by September 30th, 2026

*Equal to the US Treasury yield plus 37.5 bps

Eligibility

- Repurpose/replace energy infrastructure that has ceased operations; OR
- Enable operating energy infrastructure to reduce, utilize air pollutants or GHGs

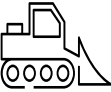
Generator replacement

Surplus interconnection

Explicit Requirements



Must pass through savings to customers & include community outreach plan



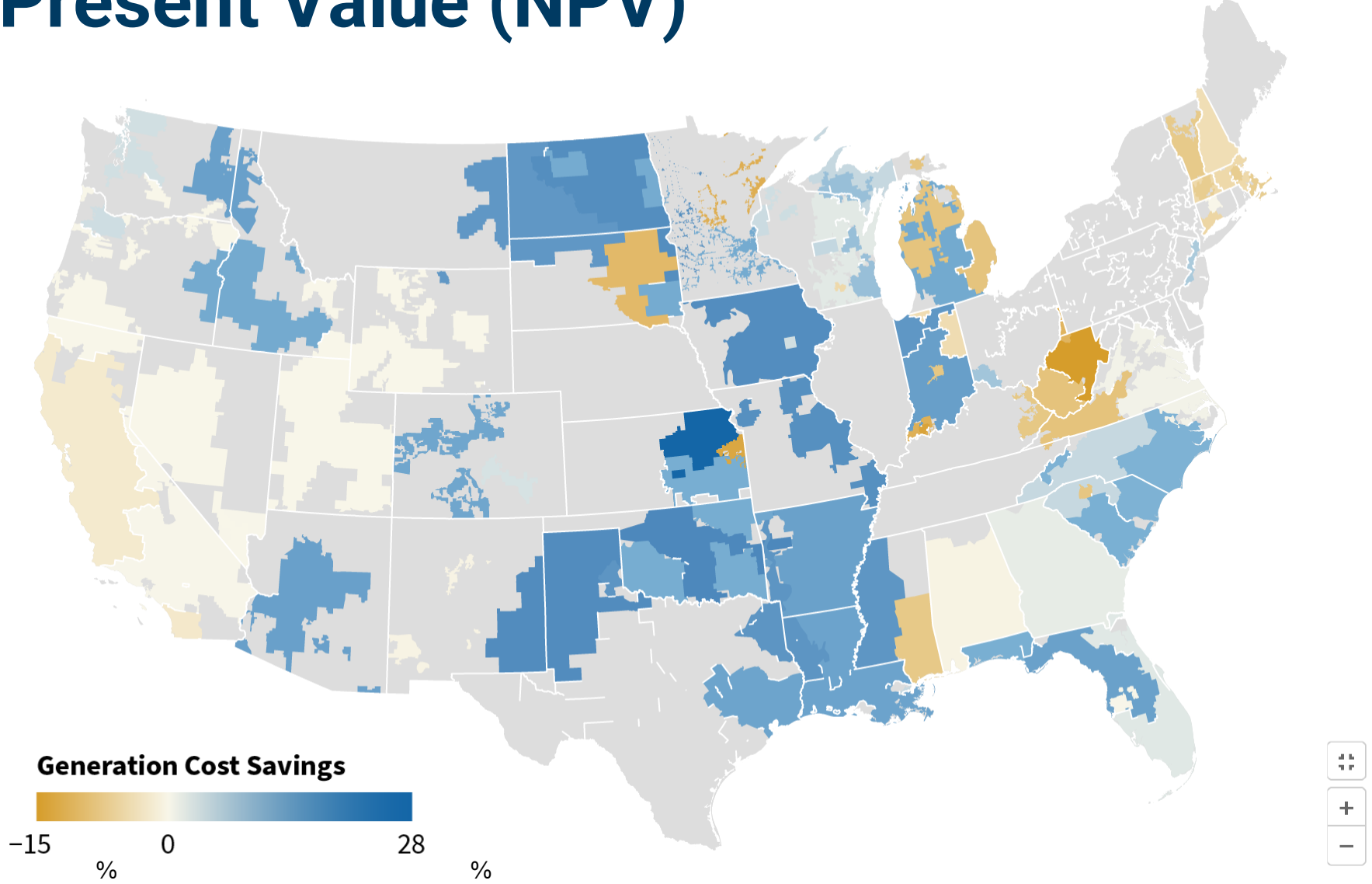
Must have remediation plan explicitly included

Clean repowering + IRA creates \$25 billion/year in ratepayer savings across the country

\$25 billion in average annual savings for the next 10 years starting in 2025

10,000 TWh of electricity produced by new solar and **6,300 TWh** by new wind displacing generation from coal and gas plants

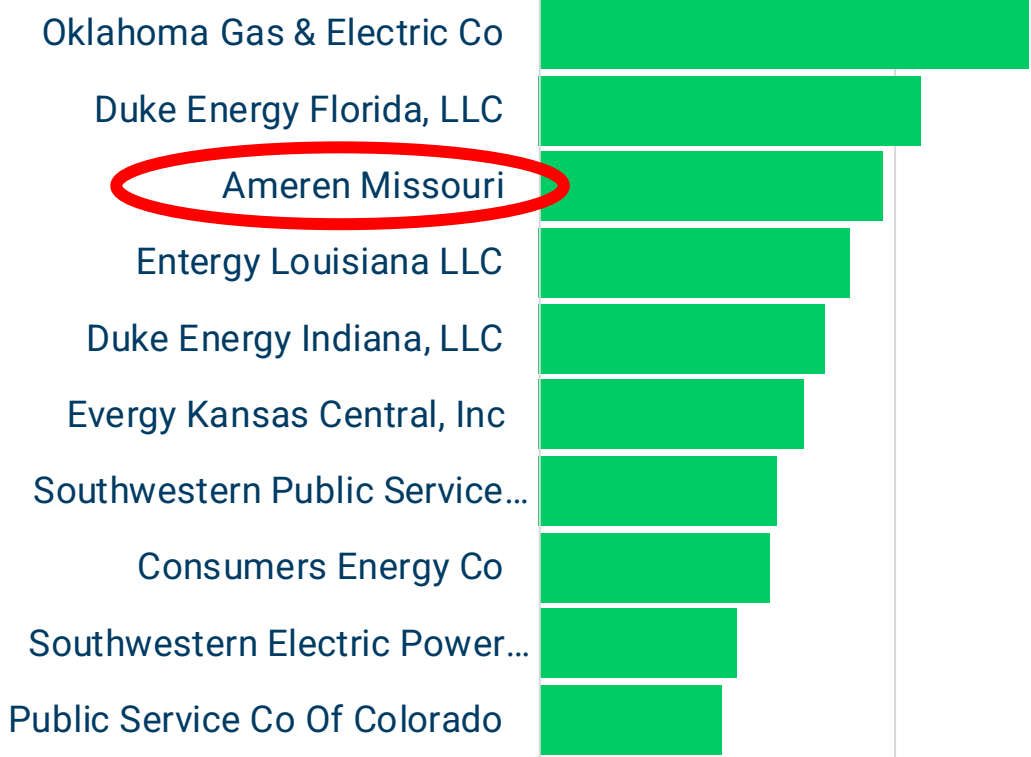
Vertically integrated utilities see over \$45 billion savings in Net Present Value (NPV)



Top 10 utilities for Total and Levelized Savings

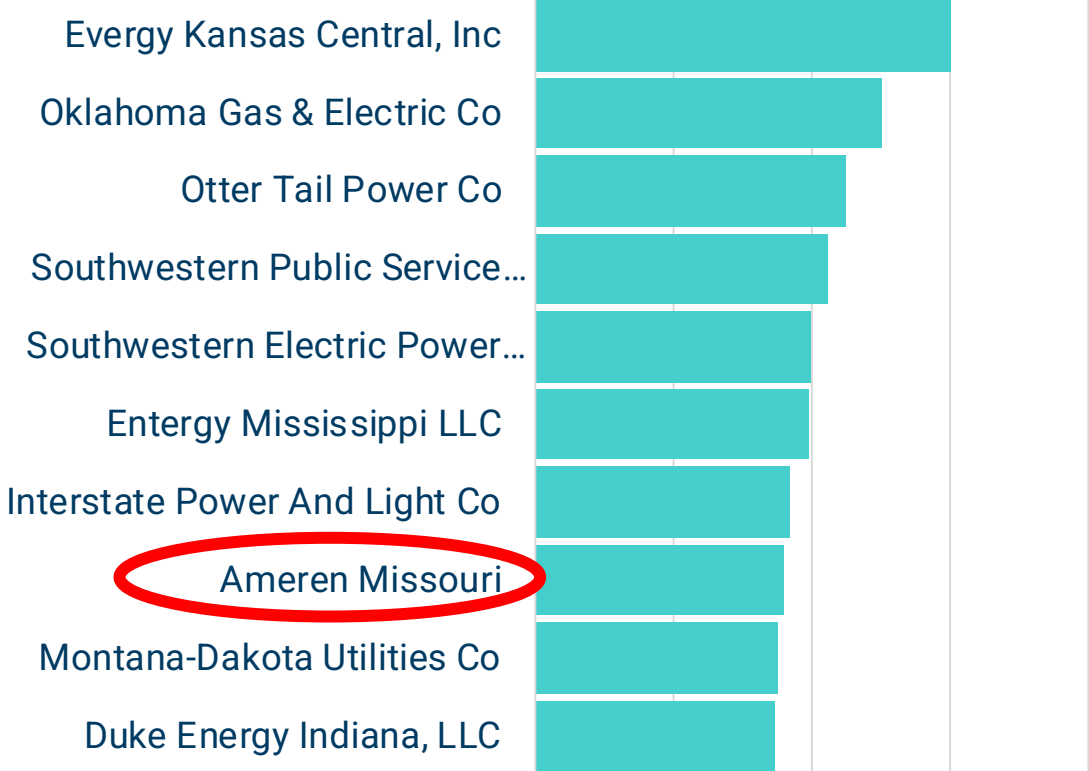
Total Savings (\$billions)

\$0 \$4



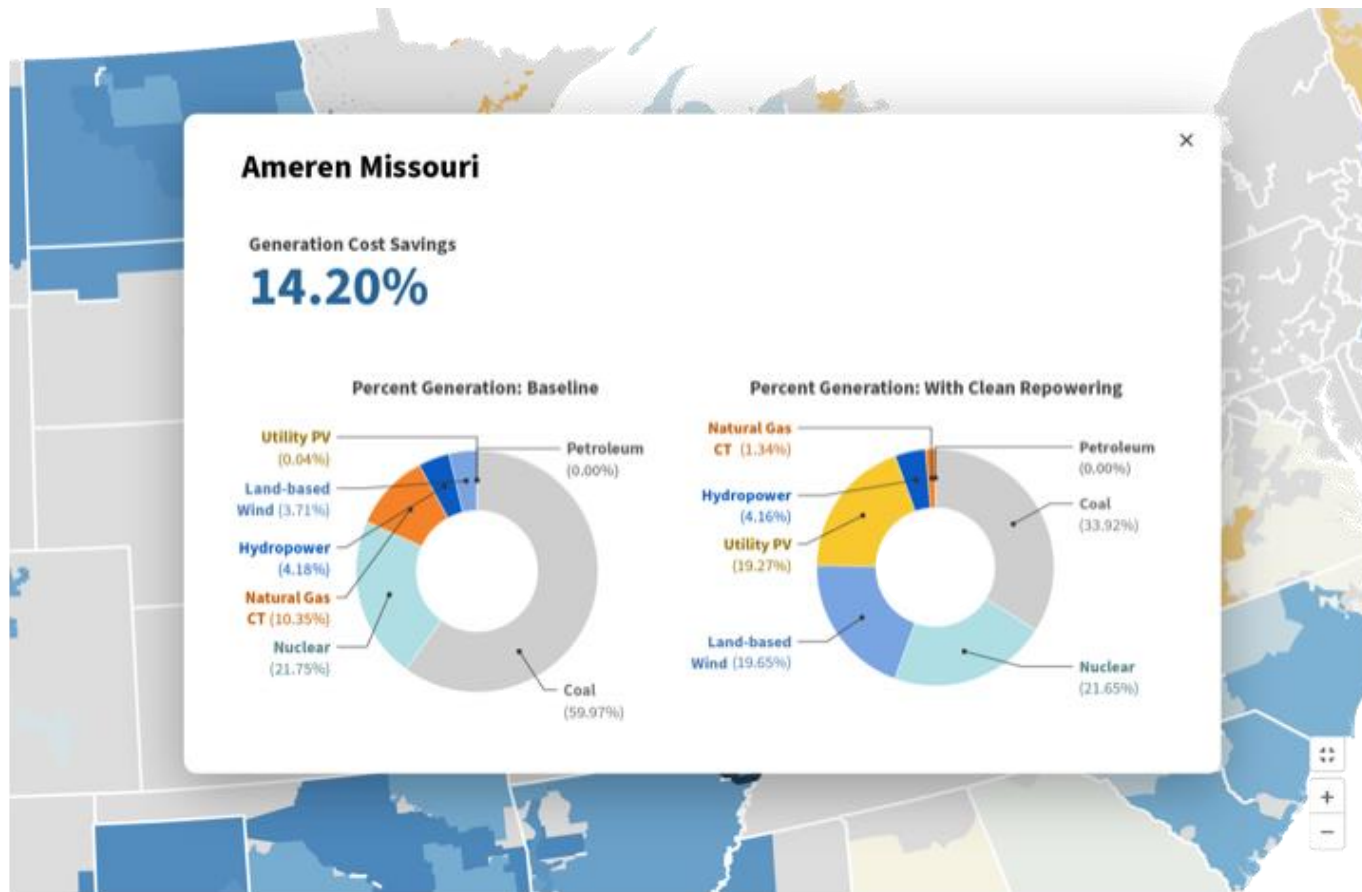
Levelized Savings (\$/MWh)

\$0 \$5 \$10 \$15 \$20



Note: levelized savings calculated as the difference between generation costs in selected clean repowering scenario and counterfactual scenario (discounted), divided by the sum of MWh electricity delivered to retail customers (discounted).

Deep Dive Example: Ameren Missouri



227 TWh solar and 188 TWh wind
Displacing coal and gas generation

Rush Island coal units have the greatest potential

- **143 TWh** reduce coal generation
- **1,016 MW** clean repowering resources sited at the facility

- **~\$4 billion** total NPV savings
- **~\$3/month** savings in average residential customer bills

RMI recommends the following actions to regulators

1

Evaluate the IRPs

Work with your utilities to **evaluate asset investment decisions** to capture near-term IRA benefits

2

Review Utility Accounting Modeling

Work with your utilities to **review ratepayer cost modeling** to unveil any suboptimal resource or IRA tax credit selections

3

Identify Interconnection Opportunities

- Work with your utilities to ID **priority locations** that support fast-tracks
- Consider **additional incentives or PUC guidance** encouraging utilities to prioritize the timely interconnection of new resources

RMI offers technical assistance and advisory support

Analysis and Synthesis

Technical assistance to help leverage RMI analysis to inform actions in PUC proceedings

Advisory Support

IRAxIRP Resource Toolkit and Regulatory Collaborative (Reg Lab) Cohort



Thank you for your attention!

**Questions? Contact
Becky Li (bli@rmi.org)
or Joe Daniel (JDaniel@rmi.org)**