

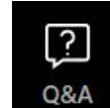
The Cheapest Way to Meet Rising Electricity Demand

July 29, 2026

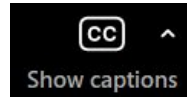
Webinar Logistics

All attendees are in **“listen only” mode** – your webcam and microphone are disabled. The Chat function is also disabled for attendees.

Submit questions and comments via the Q&A panel



Automated **captions** are available



Speakers' bios will be made available in the chat

This webinar is being recorded. We will email you a webinar recording within 48 hours. This webinar will be posted on CESA's website at www.cesa.org/webinars



The Clean Energy States Alliance (CESA) is a national, nonprofit coalition of public agencies and organizations working together to advance clean energy.

CESA members—mostly state agencies—include many of the most innovative, successful, and influential public funders of clean energy initiatives in the country.

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Let The Sun In: Clean Energy Is The Cheapest Way To Meet Rising Demand

June 2026

Brendan Pierpont, Matthias Fripp, and Michelle Solomon |
Energy Innovation



LET THE SUN IN: CLEAN ENERGY IS THE CHEAPEST WAY TO MEET RISING DEMAND

Brendan Pierpont
Matthias Fripp
Michelle Solomon

June 2026

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WEBINAR SPEAKERS

The Cheapest Way to Meet Rising Electricity Demand | July 29, 2026



Brendan Pierpont

Director, Electricity
Energy Innovation



Warren Leon

Executive Director
CESA
(Moderator)





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Upcoming Webinars

Beyond Lithium, Part 3: Form Energy's Iron-Air Battery (August 6)

Mobile Solar+Storage: Emergency Response in New Orleans with the First Beehive Microgrid (August 18)

Read more and register at
www.cesa.org/webinars

A vertical photograph of a white wind turbine on the left side of the slide. The turbine's blades are partially visible against a blue sky with light clouds. In the background, several other wind turbines are visible on a distant shore across a body of water.

Clean Energy is the Cheapest way to Meet Rising Demand

July 29, 2026

Clean Energy States Alliance Webinar

Brendan Pierpont

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Motivation

- Challenging times for the power sector
 - *Rising power demand*
 - *Headwinds for wind, solar and transmission*
 - *Constraints on gas turbine supply chains*
 - *Federal orders to keep coal plants open*
- Can we meet growing demand with clean energy?
- Is the clean energy path cheaper?

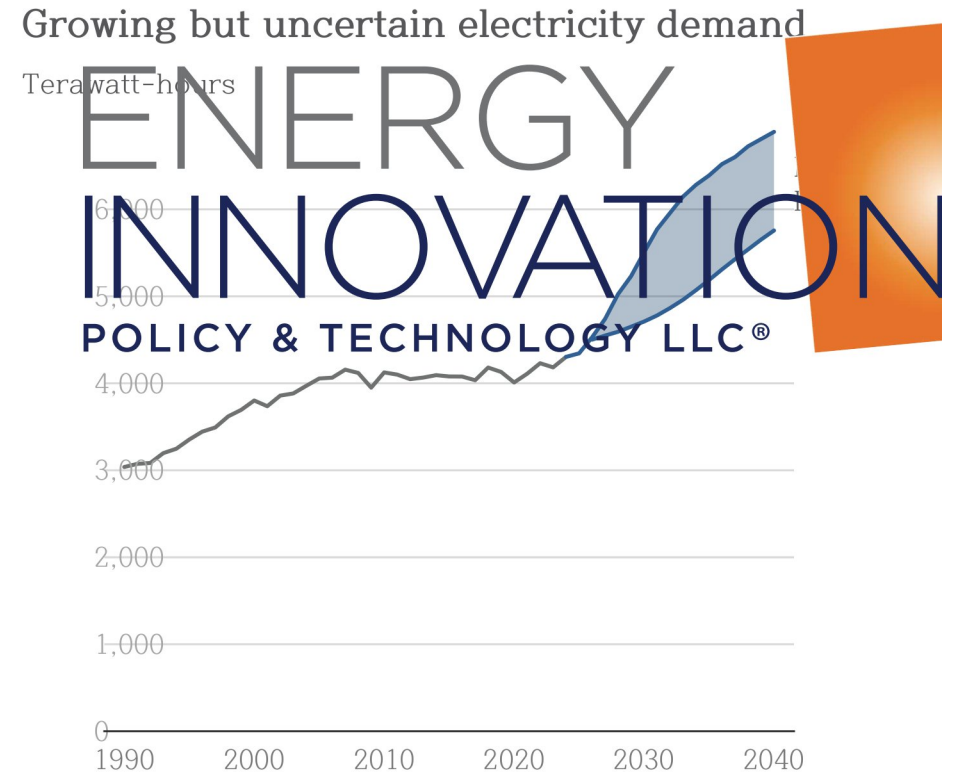
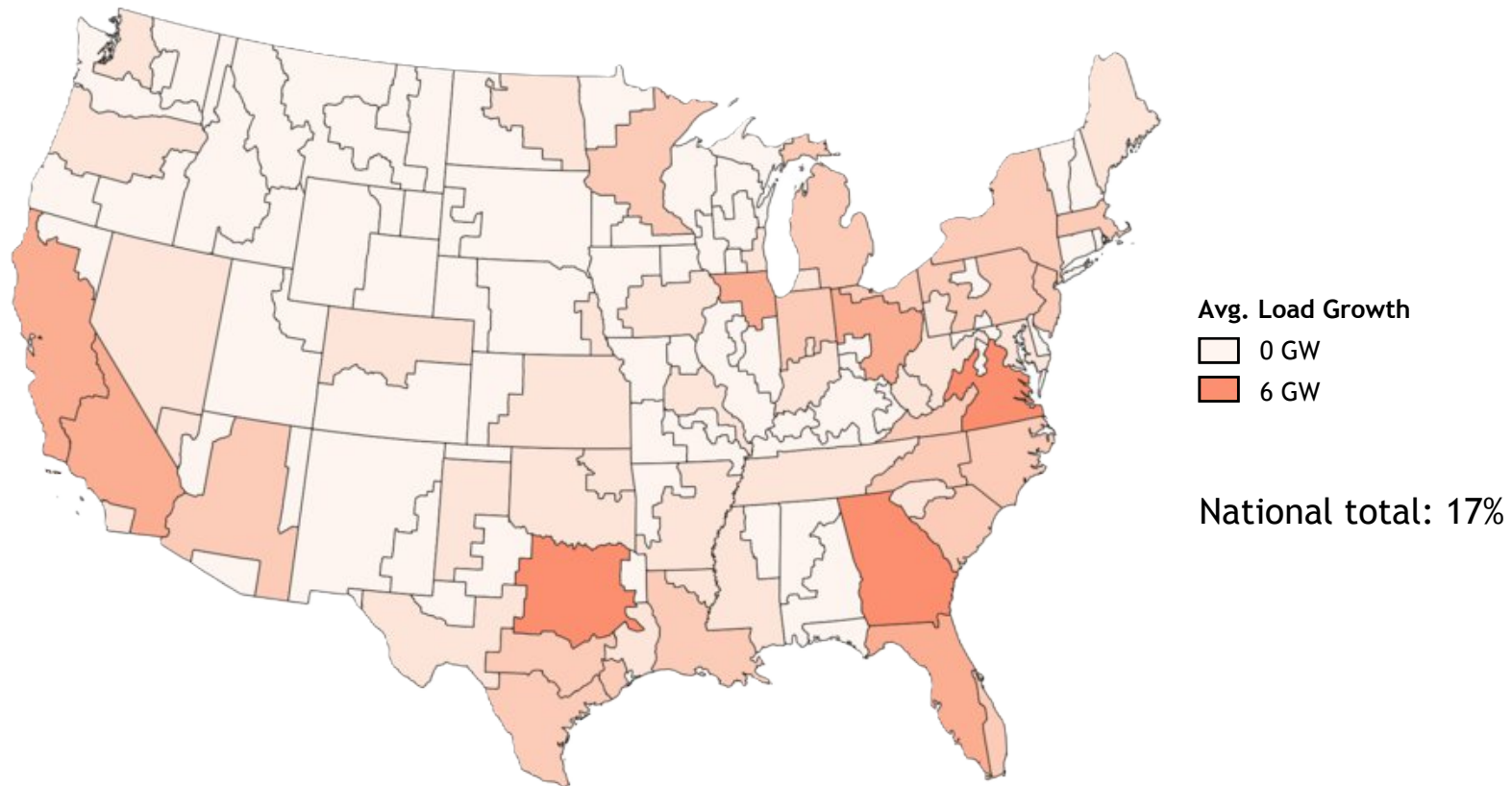


Chart:Energy InnovationSource:EIA, Brattle Group

Growth in Average Load by Region, 2025-30



Source: ICF, *Electricity Demand Growth in the US: Challenges and Opportunities for Utilities*, May 2025

Modeling approach

Open-Source

Uses open-source **Switch electricity planning model** and publicly available inputs

Granular

134 grid zones, hourly resolution for sample days

Up-to-date

Validated resource costs against recent market data; utilizes recent industry load growth forecast

Near-term

Snapshot of 2030; Direct link to decisions being made today



TWO PATHS FOR MEETING GROWING ELECTRICITY DEMAND



High Fossil Scenario

Meet growing demand by retaining coal and building new gas.



Wind and solar **limited** to binding state policies & projects approved or underconstruction



Planned coal retirements **blocked**

~55% fossil generation by 2030

Clean Energy Scenario

Meet growing demand with solar, wind, storage, efficiency, and flexibility.



500 GW of installed solar by 2030
233 GW of wind by 2030



Announced coal plant + additional economic retirements

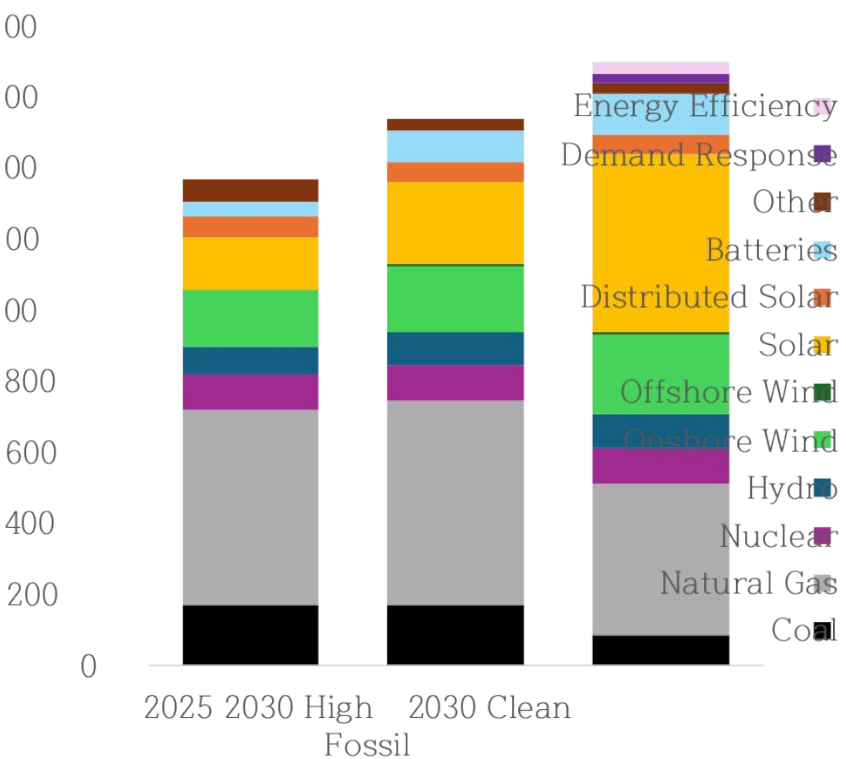


up to 3 percent cumulative energy efficiency savings & peak demand flexibility

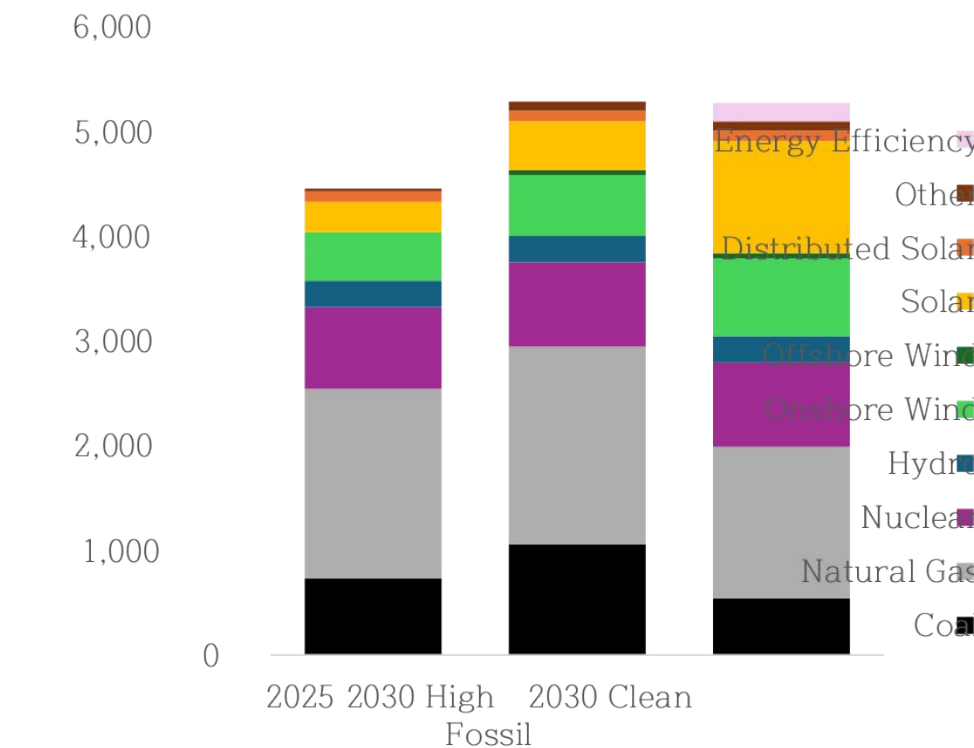
58% carbon-free generation by 2030

Capacity and generation: Clean vs. High Fossil

Installed Capacity (GW)



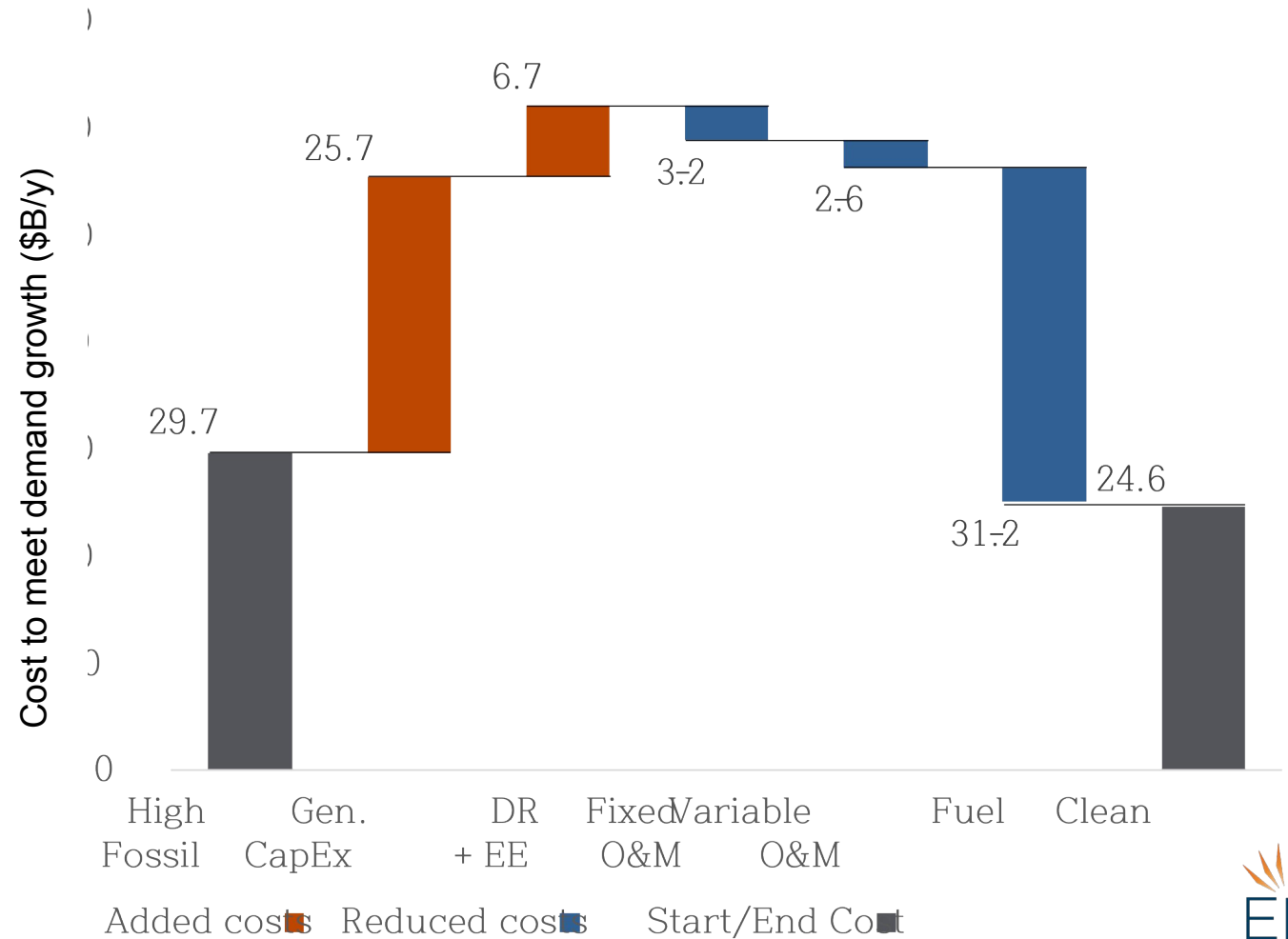
Annual Generation (TWh)



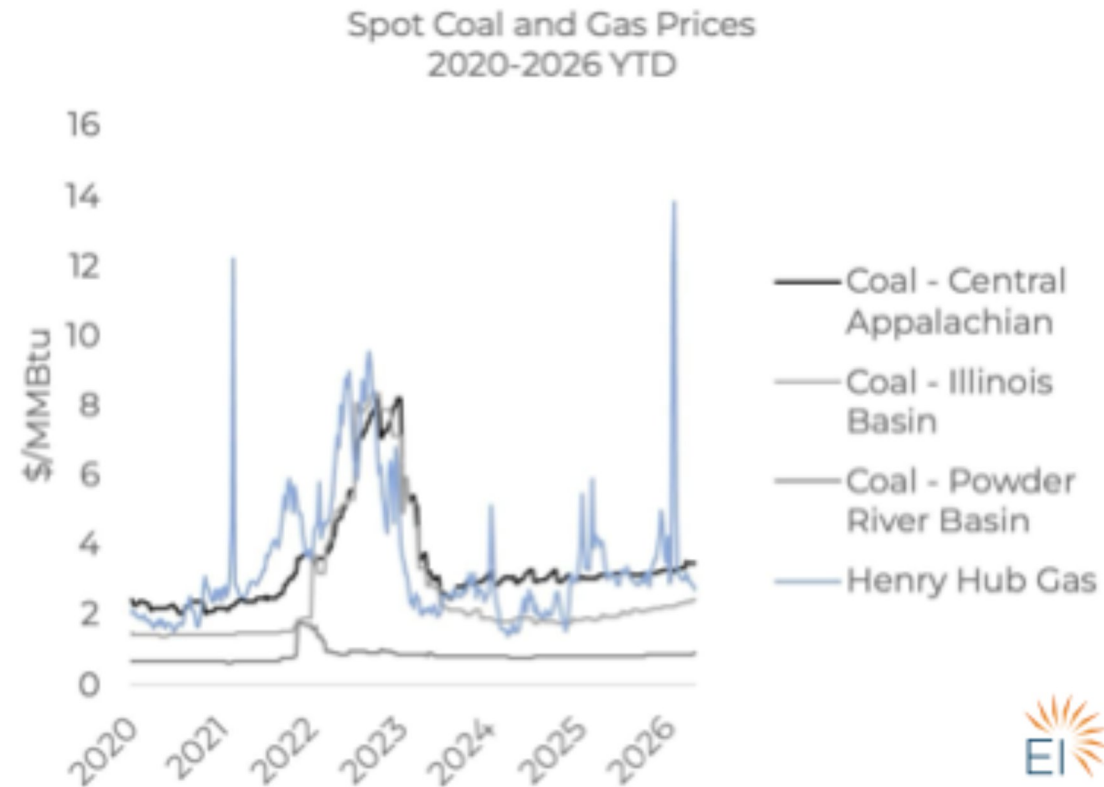
Meeting demand growth with clean energy is cheaper

Savings from reduced fuel and O&M exceed new fixed costs of clean capacity

Incremental cost of meeting growing demand is ~\$30 billion per year for the high fossil case, \$5 billion cheaper with clean



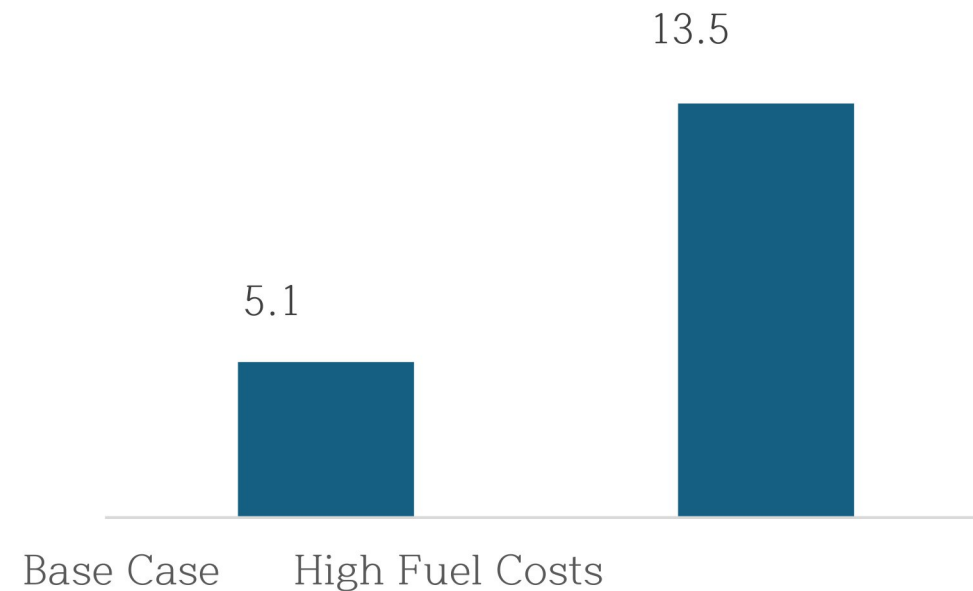
Fossil fuel prices are volatile



Clean energy saves more money if fuel prices rise

Under a sensitivity where fuel prices rise to 2022 levels, savings increase by \$8 billion per year

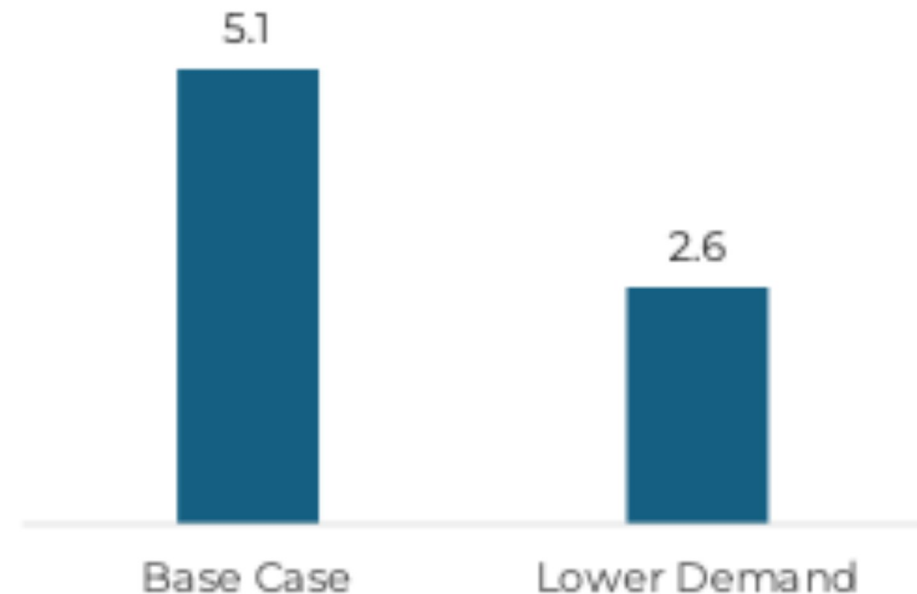
and
fuel
sensitivity (\$B)



Clean energy is least-regrets, saving money even if demand grows slowly

- Under a sensitivity where demand grows at 1/3 the rate, a clean energy system built for high growth still saves money

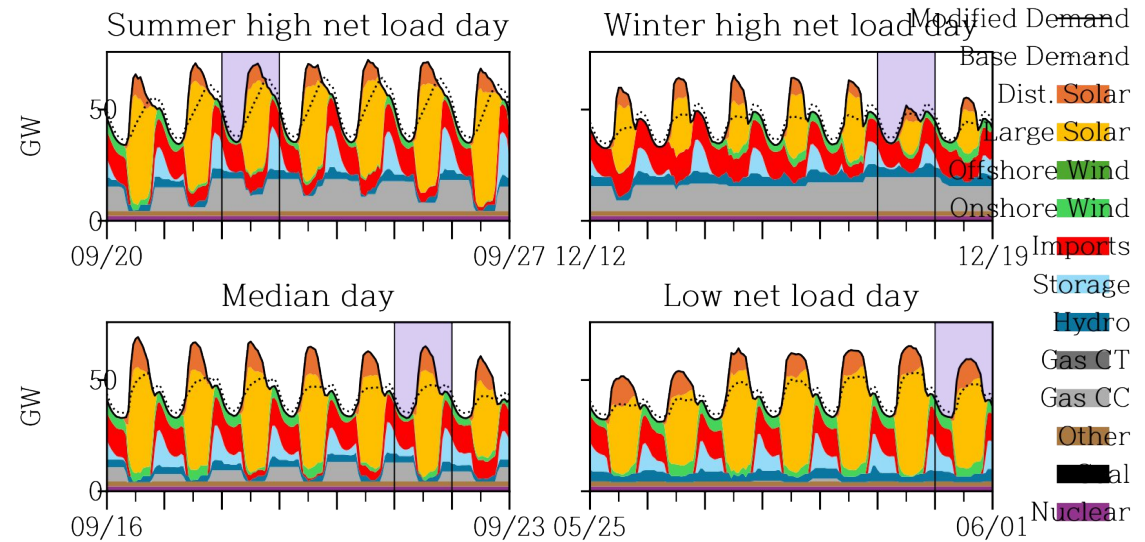
Savings between high fossil and clean pathway under lower demand sensitivity (\$B)



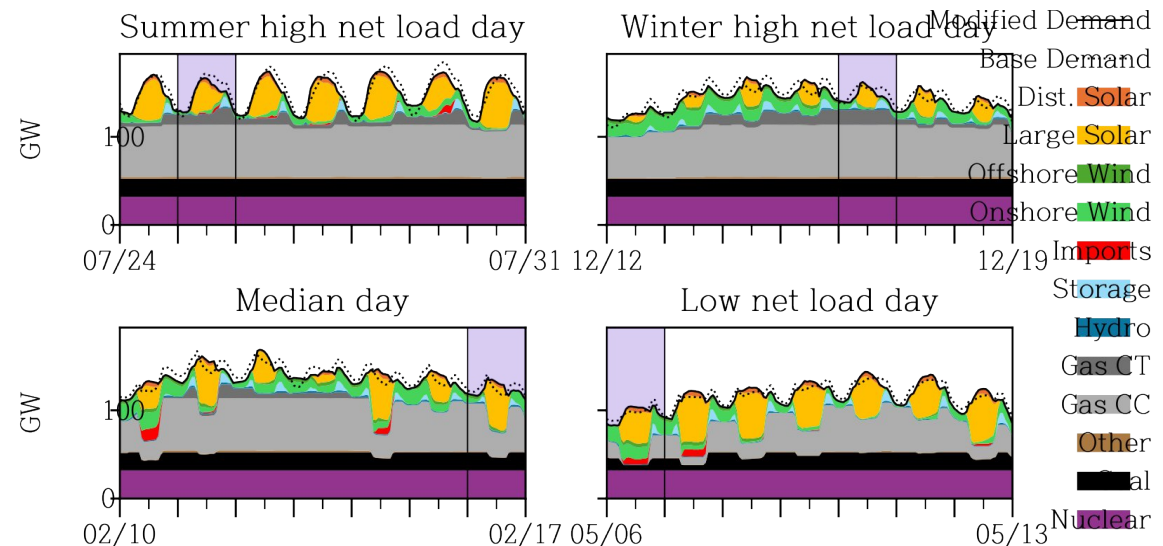
A clean energy system is reliable

- Switch tested each 2030 portfolio against 7 years of hourly weather data
- Rigorous approach to reliability - added challenging days from 7-year run to capacity expansion, iterated until there was no unserved load in any region in all 7 years

CAISO - 2030 Clean Scenario



PJM - 2030 Clean Scenario



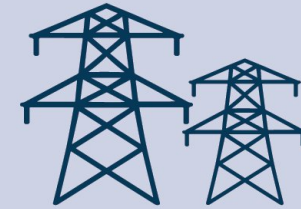
KEY POLICY ACTIONS TO BUILD AN AFFORDABLE CLEAN ENERGY SYSTEM



Set ambitious clean energy targets and accelerate implementation



Reduce permitting and interconnection barriers for new energy projects



Improve electricity system planning using updated cost and demand assumptions



Strengthen fuel risk management to protect consumers from price volatility



Maximize use of the existing grid through modernization and grid-enhancing technologies



Harness demand-side flexibility through efficiency, demand response, and virtual power plants

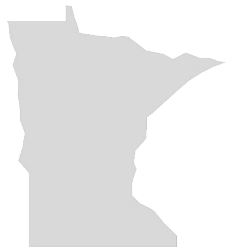
Examples: policy actions in practice



Illinois - Reducing Barriers: Minimum standards for local siting to prevent overly restrictive rules and permit requirements, with state backstop process



Indiana - Getting More Out of the Grid: New policy requires evaluation of surplus interconnection - better utilization of existing points of interconnection - to meet new capacity and energy resource needs in integrated resource plans



Minnesota - Harness the Demand Side: Regulators approved a program for Xcel energy to deploy 200 MW of storage across their distribution system by 2028



For more information

Download the report at Energy
Innovation's website:

<https://energyinnovation.org/>

Email me:

brendan@energyinnovation.org



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Thank you

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