

Data Center Power Play in Illinois

REPORTS & MULTIMEDIA / REPORT

Data Center Power Play

How Clean Energy Can Meet Rising Electricity Demand While Delivering Climate and Health Benefits

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Published Jan 21, 2026

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SCIENCE *for a*
HEALTHY PLANET
and **SAFER WORLD**



Project Summary

- Used the Regional Energy Deployment System (ReEDS) capacity planning model.
- National report and technical appendix
- State-specific fact sheets for Illinois, Michigan, Wisconsin



KEY FACTS

Data Center Power Play in Illinois

How Clean Energy Can Meet Rising Electricity Demand While Delivering Climate and Health Benefits

Modeling Scenarios

Policy scenarios

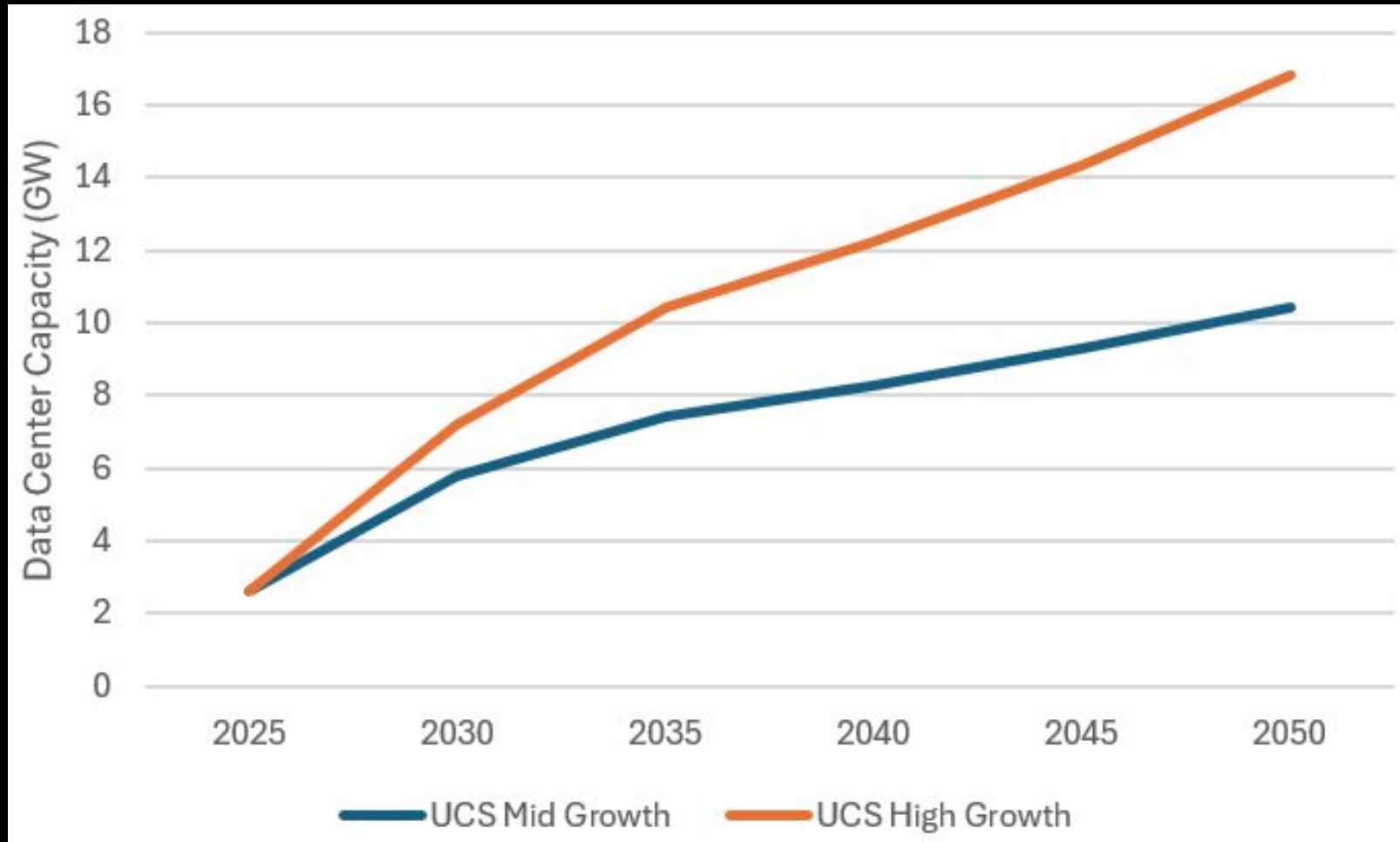
- **Current Policies:** Includes OBBBA and state policies (as of mid-2025); excludes EPA power plant carbon standards
- **Illinois CO₂ Reduction Policy:** Reduces power plant CO₂ emissions attributable to in-state and imported generation sources
- **Restored Tax Credits:** Extends federal clean energy credits based on the IRA

Data center demand growth scenarios

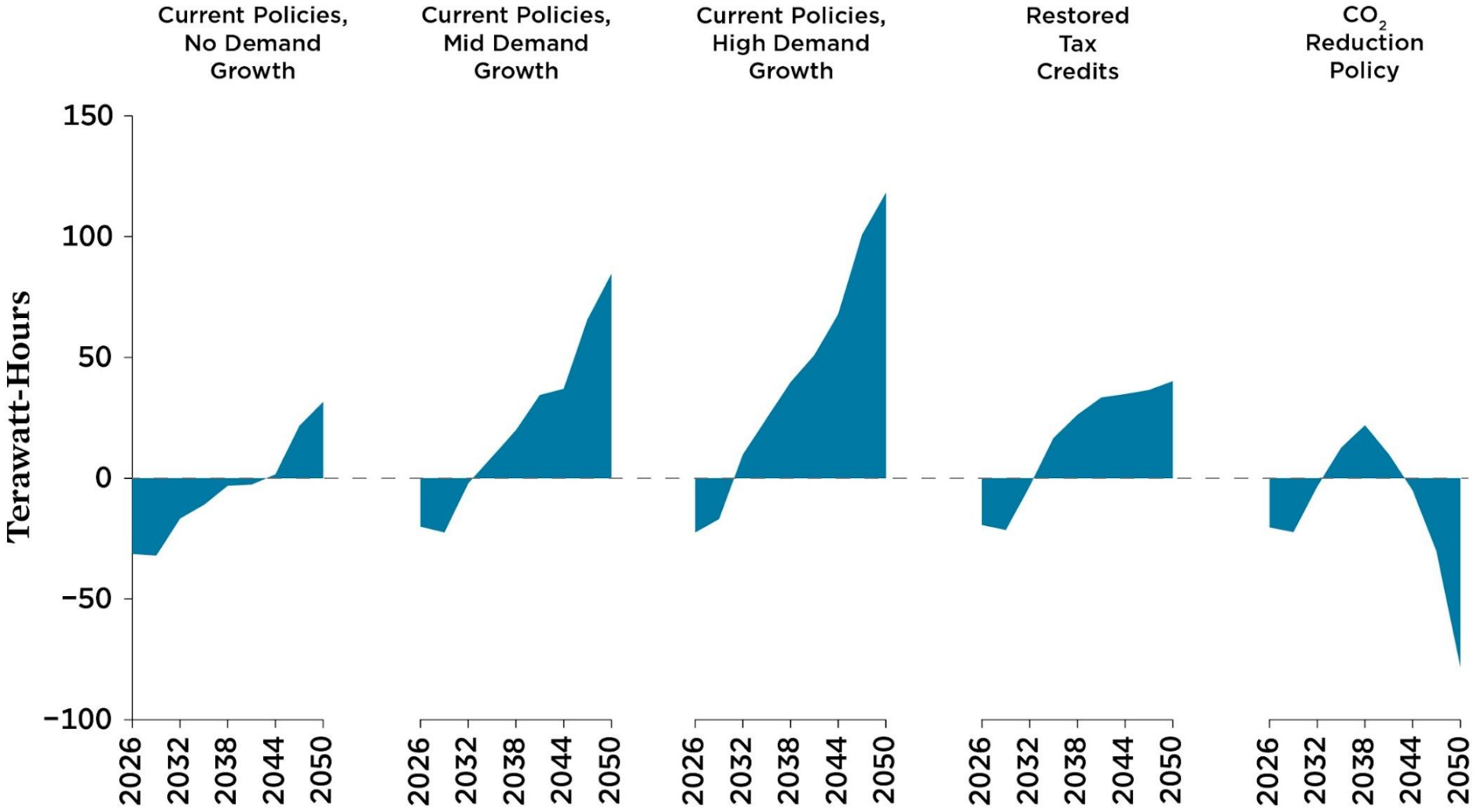
- **Mid Demand Growth:** Mid-level assumptions for data center demand
- **No Demand Growth:** Counterfactual to isolate data center impacts
- **High Demand Growth:** High data center demand sensitivity

Note: the Current Policies scenario models each of these demand growth scenarios, while Illinois CO₂ Reduction Policy and Restored Tax Credits use Mid Demand Growth.

Illinois Data Center Electricity Demand Projection



Illinois Net Electricity Imports



Data Center Effect on Illinois Generation

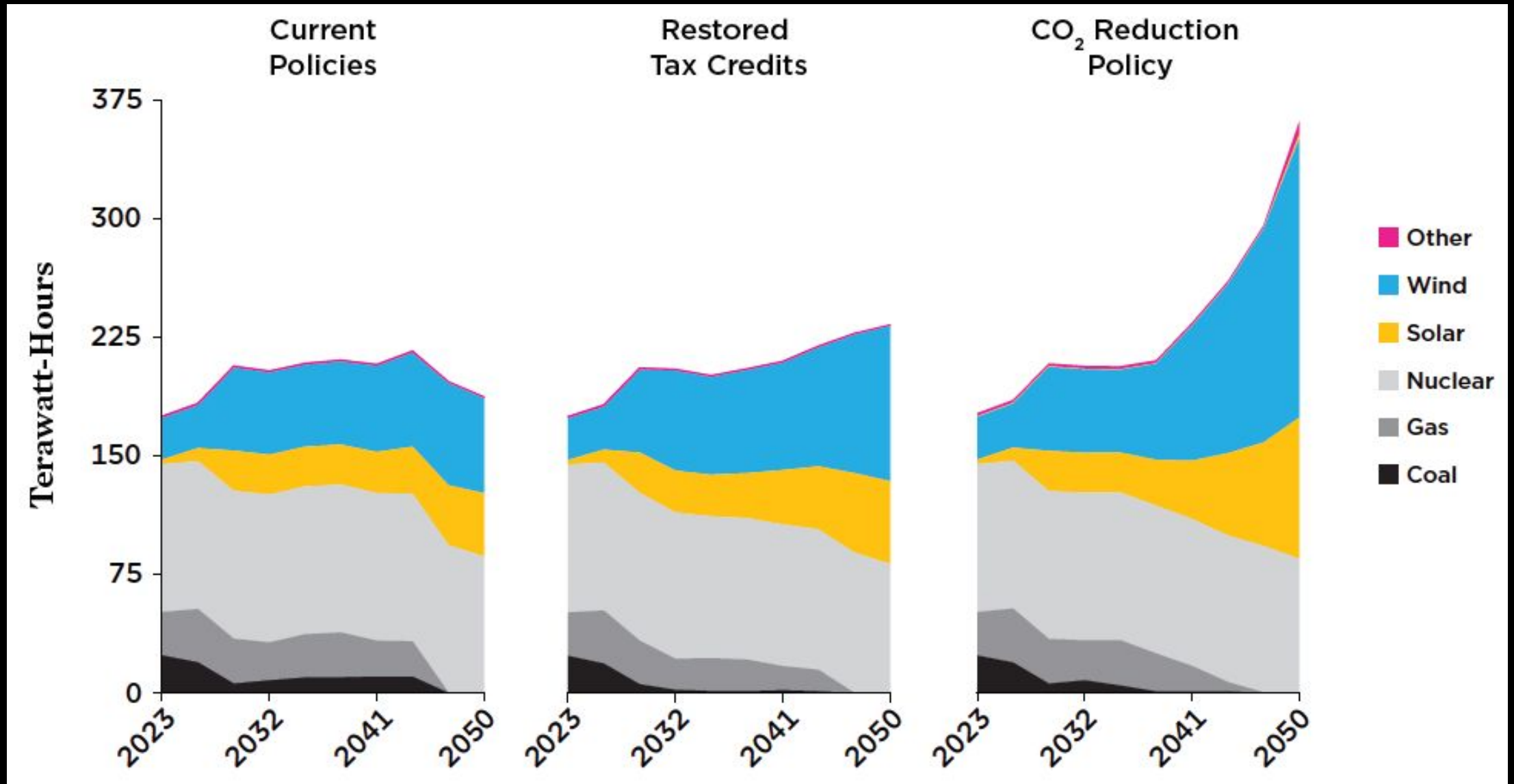
Due to increased imports, under current policies data centers:

- Only increase **Illinois' cumulative generation** over the study period by **12%** (Mid Demand Growth) or **16%** (High Demand Growth).
- About **two-thirds** of these generation increases comes from **IL solar and wind**; the **other third** is from **IL gas and coal plants**.

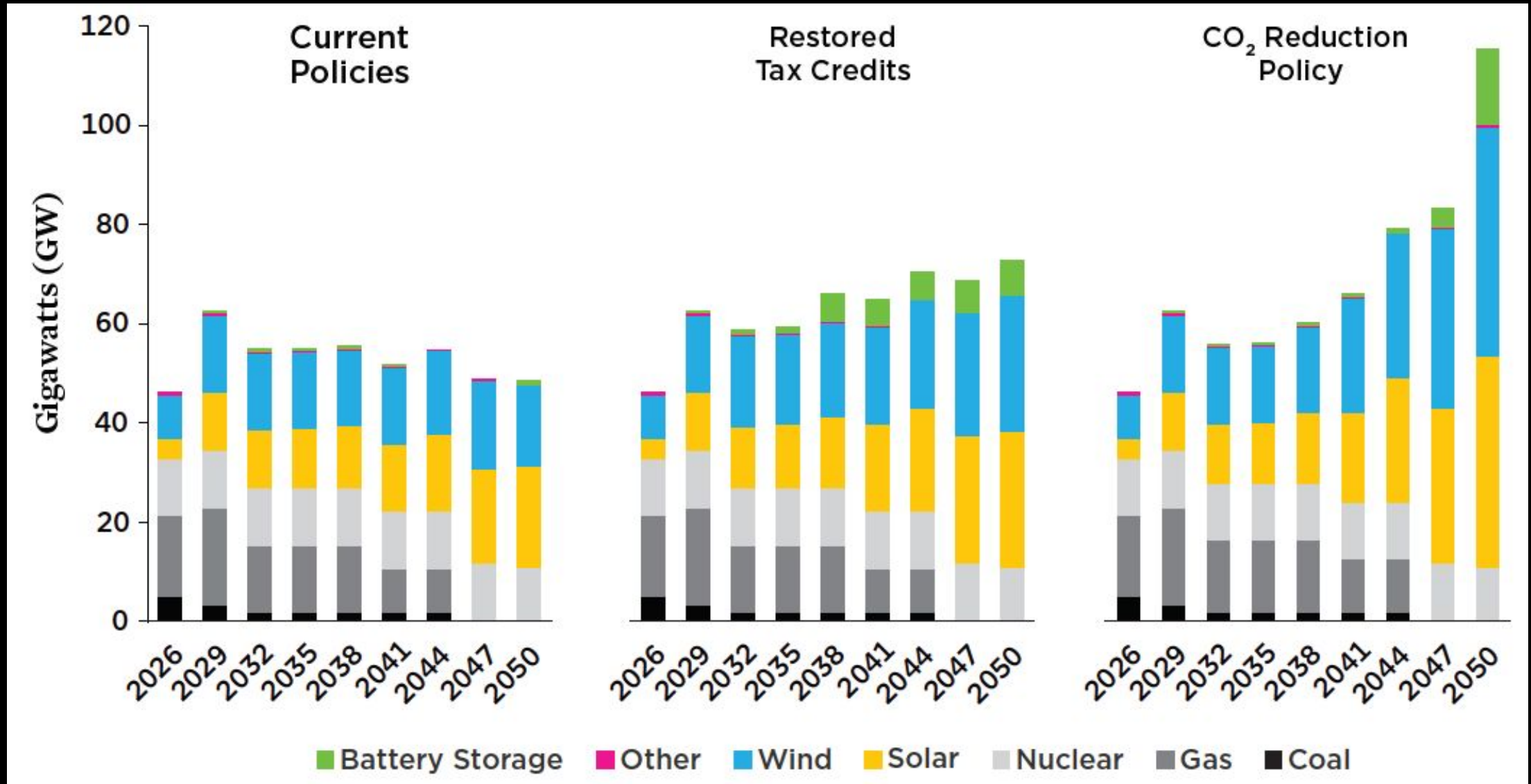
As a result of data center–driven electricity demand under current policies:

- Illinois **gas plants** run **34% more** (Mid Demand Growth) or **61% more** (High Demand Growth).
- Illinois **coal plants** run **21% more** or **38% more**.

Illinois Electricity Generation, Mid Demand Growth



Illinois Generating Capacity, Mid Demand Growth



Recommendations

- Require proposed data centers to **secure new sources of carbon-free electricity** deliverable to Illinois.
- Increase **transparency** and **accountability**.
- Require data centers to **pay for additional grid infrastructure** and operating costs.
- Leverage the state's new **integrated resource planning (IRP)** policies.
- Ensure strong support for **state clean energy policies**, alongside reversing recent changes to **federal tax credit provisions**.



{ Thank You

Want to Learn More?

Visit:

www.ucs.org/resources/data-center-power-play

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