cambridge econometrics

clarity from complexity

E3-US

A state-level economic impact model

Shaping the policy response to deliver a net zero economy

E3-US is an advanced tool developed by Cambridge Econometrics to help support decision makers at the state and federal levels assess the impact different energy and climate policies will have on a state's economy, society and the environment and that of the US as a whole.

The economic impact forecasting tool is specifically designed to provide deep and rigorous analysis of energy and climate policy.

It is equally well-placed to assess a wide range of other policy areas including industrial strategies, workforce development, fiscal and macroeconomic policies, including international trade policy.

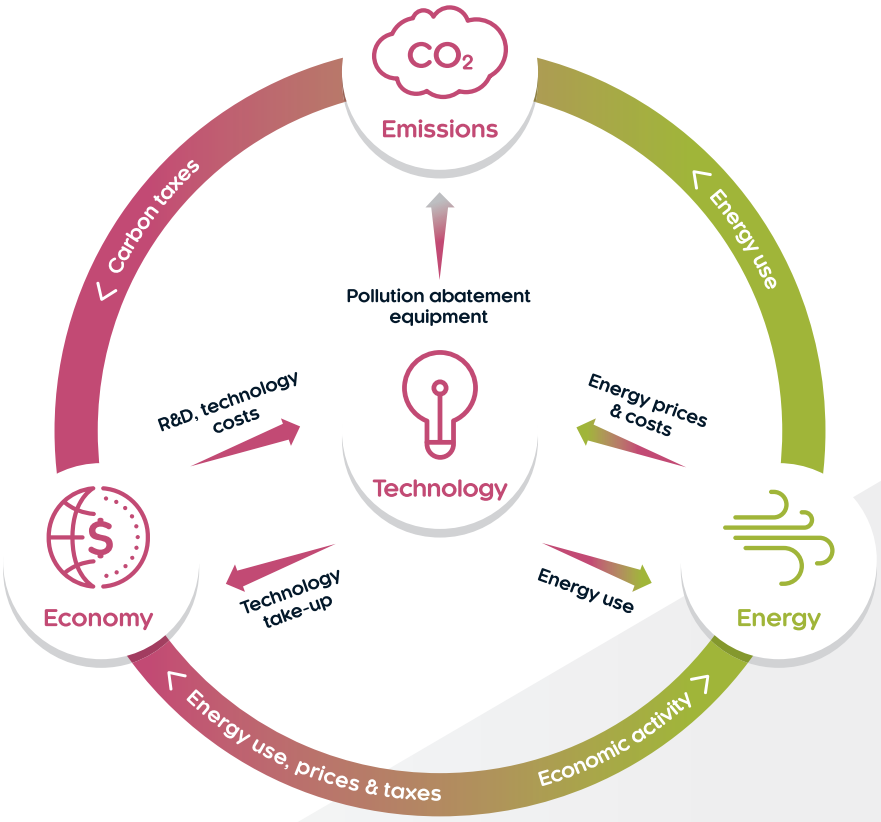
E3-US can inform pressing policy questions, such as:

- What impact will different pathways to zero carbon power have on jobs, income and growth?
- How will electric vehicles affect the automotive sector and household finances?
- How many jobs could be created by improving the efficiency of energy use in buildings?
- Which industries and states stand to gain from the transition to a zero-carbon economy, and where will the largest challenges to economic development occur?
- What are the impacts at the state level of increased energy independence, and increased energy exports to Europe?
- How can we increase the long-term impact of the Build Back Better program?

Why use E3-US?

E3-US is the ideal tool for analyzing energy and climate policy.

- Covers the entire energy system
- Innovative 'bottom-up' treatment of technology innovation in the power sector
- Simulates investment effects and dynamic adjustments to changes in energy prices, taxes, and other policy levers
- Provides comprehensive modeling of a state's economy and labor market
- Underpinned by 25+ years' experience working with global, European and US clients on climate change and clean energy analysis



An overview of the model

E3-US shares many of the features of Cambridge Econometric's internationally recognized E3ME model, covering the 2-way interdependencies between the economy, energy and environment systems.

- The **economy module** identifies 70+ industry sectors and their production structures. It traces the 'conventional' static impacts of spending through the supply chains, as well as the long-term adjustment to investment, prices and policy. A **labor market** component provides detailed analysis of employment, wages and productivity.
- The **energy module** identifies energy demand by sector, given levels of production, technology and prices. A detailed **power sector sub-module** projects the mix of generation technologies deployed with future costs and adoption influenced by past levels of deployment.
- The **emissions module**: provides complete GHG emissions inventory linked to the choice of energy carrier (fuel) by different sectors; influenced by investment in end-of-pipe technologies. Scenario analysis can examine the role of a wide range of policy leavers, including investment in clean energy, energy prices, tax regimes, investment in energy-efficient production techniques, and R&D.

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Cambridge Econometrics is bringing rigorous economic analysis tools to the conversation about energy and climate policy.

The E3-US model helps our clients understand the impacts of their policy and investment decisions on the economy, society, and the environment.

Dan Hodge, Executive Vice President

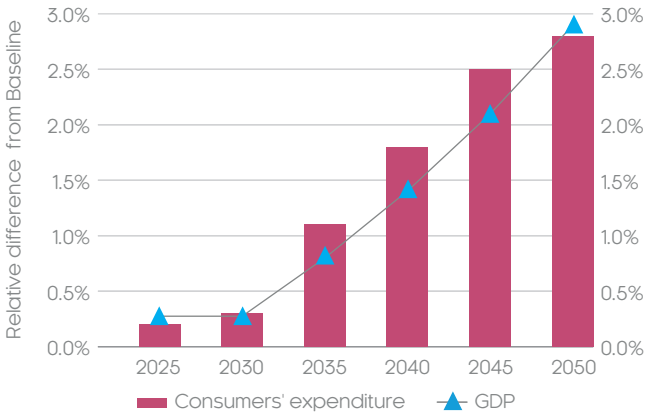
Economic impact outputs of E3-US

The model results include a wide range of socioeconomic indicators at the state and national level, including:

- Key macroeconomic indicators: GDP, household income, prices, investment, trade
- Sectoral indicators: output, employment, wage rates, productivity
- Energy: a full set of energy balances (and prices), power generation mix
- Emissions: energy GHG emissions by sector and fuel

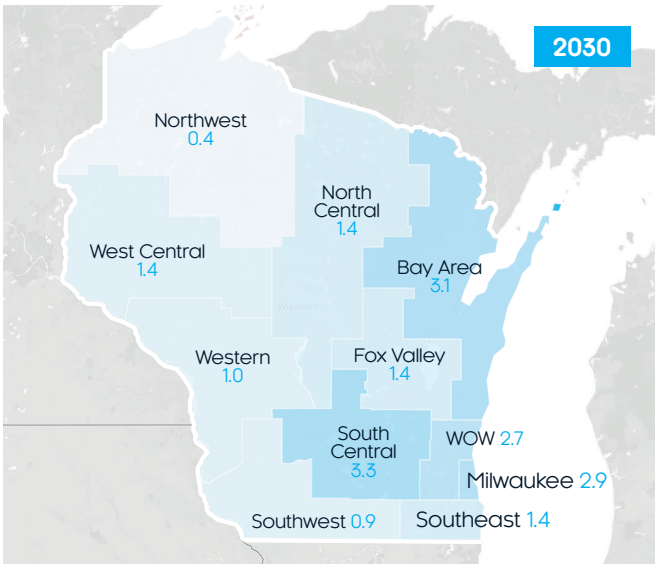
Economic impacts of economy-wide decarbonisationin Wisconsin (relative difference from Baseline)

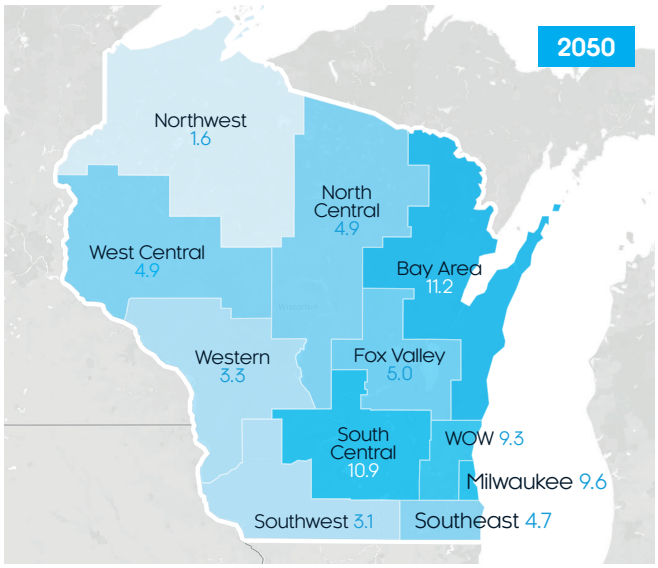
source: report commissioned by Gridlab



Regional employment impacts of economy-wide decarbonization by 2030 and 2050 in Wisconsin (thousands of additional jobs compared to Baseline)

source: report commissioned by Gridlab





Where we have made a difference

Our current and recent work includes:

See our featured work at:
www.camecon.us/what/our-work/

Wisconsin Clean Energy and Net Zero Impacts

Modeling Global Renewable Targets

Impact Assessment of Increased Climate and Energy Policy Ambition

Unlocking the Inclusive Growth Story of the 21st Century

On behalf of:

GridLAB

IRENA
International Renewable Energy Agency

European Commission

WORLD RESOURCES INSTITUTE

For more information about how we can support you in developing policy, please contact Executive Vice President Dan Hodge
dh@camecon.com

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