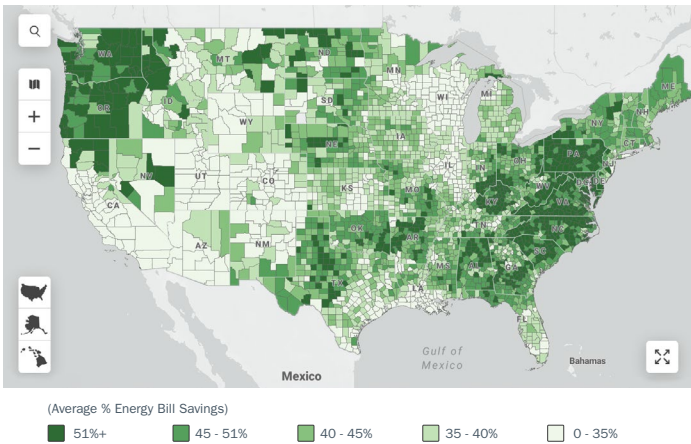




# State and Local Planning for Energy (SLOPE) Platform Data

The State and Local Planning for Energy (SLOPE) Platform is a free, easy-to-use online platform to support data-driven state and local energy and decarbonization planning.

## Average % Bill Savings From Efficiency Upgrade Package for Low-to-Moderate Income Households



SLOPE creates visualizations of energy data at the census tract, city, county, and state levels to support energy planning.

## Goals

- **Assist** decision makers in understanding the various cost-effective options to meet their clean energy and climate goals
- **Provide** access to an integrated, easy-to-use platform with compelling data visualizations for users to explore the impacts of energy actions
- **Advance** equitable decision-making so all communities can benefit from clean energy transitions.



## Scenario Planner

Visualize and compare the impacts of different energy scenarios for your state or county's future.

Planning Metric (2020–2050)	Description
Energy Consumption	Energy consumption under various levels of building and transportation electrification and building energy efficiency.
CO <sub>2</sub> Emissions	CO <sub>2</sub> emissions under various levels of grid decarbonization, building and transportation electrification, and building energy efficiency.
SO <sub>2</sub> and NO <sub>x</sub> emissions	SO <sub>2</sub> and NO <sub>x</sub> emissions under various levels of grid decarbonization, building and transportation electrification, and building energy efficiency.
System Costs	Capital and operational energy system costs and savings under various levels of grid decarbonization, building and transportation electrification, and building energy efficiency.



## Data Viewer Explore interactive maps and charts showing various energy data layers

Data Category	Data Layer	Description*
<b>Energy Consumption</b>	Electricity and Natural Gas Consumption and Expenditures	Projections of electricity and natural gas consumption and spending for the residential, commercial, and industrial sectors through 2050. <sup>1,2,3</sup>
<b>Energy and Environmental Justice</b>	Social Vulnerability Index	Social Vulnerabilities Index uses U.S. Census data to determine jurisdictions' relative social vulnerability. The index can be used to identify disadvantaged communities by examining a combination of socioeconomic, housing type, transportation, minority status, and other demographic factors. <sup>2,4</sup>
	Household Energy and Transportation Burden	Percentage of household income spent on housing- and transportation-related energy costs. <sup>2,4</sup>
	Low-to-Moderate Income (LMI) Single-Family Home Bill Savings Potential	Average bill savings from cost-effective energy efficiency retrofits with upgrade packages for LMI households. <sup>1,2</sup>
	LMI Households, DAC Status, and Demographics	Distribution of LMI households, demographic characteristics, and DOE's disadvantaged community (DAC) score. <sup>1,2,4</sup>
	LMI Solar Potential	Generation potential and offsetable electricity consumption potential for LMI residential rooftop PV** and ground-mount PV. <sup>1,2,4</sup>
<b>Economic Indicators</b>	Clean Energy Job Estimates	Job actuals for 2020 and projections through 2030 for solar photovoltaics (PV), land-based wind, battery energy storage, and utility energy efficiency program job growth. <sup>1</sup>
<b>Transportation</b>	Fuel Consumption, Vehicle Miles Traveled, and Vehicle Stock Breakdown	Projections of personal light-duty vehicle fuel and electricity consumption, vehicle miles traveled, and vehicle stock under high electrification and reference scenarios through 2050. <sup>1,2</sup>
<b>Energy Efficiency</b>	Energy Efficiency Potential: Economic & High Achievable	Projected electricity savings potential for residential, commercial, and industrial sectors through 2035 in economic** (all cost-effective measures adopted) and high achievable (reflective of historic levels of achieved efficiency) scenarios. <sup>1</sup>
	Energy Efficiency Potential for Residential and Commercial Buildings	Electricity and fuel savings potential from cost-effective efficiency measures (e.g., boiler upgrades, lighting upgrades, and smart thermostats). <sup>1,**</sup>
<b>Renewable Energy Generation Potential</b>	Solar PV	Generation potential of utility-scale, <sup>1,2</sup> floating, <sup>1</sup> residential rooftop, <sup>1,2,**</sup> and commercial rooftop solar PV. <sup>1,2</sup>
	Concentrating Solar Power	Generation potential of utility-scale concentrating solar power. <sup>1,2</sup>
	Wind	Generation potential of land-based, <sup>1,2</sup> offshore, <sup>1</sup> and distributed wind power. <sup>1,2,**</sup>
	Bioenergy	Generation potential of biopower (to create electricity). <sup>1</sup>
	Geothermal	Generation potential of utility-scale power generation, <sup>1</sup> district heating, <sup>1,2</sup> and heat pump potential. <sup>1,2,**</sup>
	Hydropower	Generation potential of utility-scale hydropower; <sup>1</sup> mapping of stream-reaches suited for new hydropower; and identification of non-powered dams that could be converted to produce electricity.
	Generation Scenarios	Projected mix of electricity generation sources through 2050 under multiple scenarios. <sup>1</sup>
<b>Cost of Energy</b>	Levelized Cost of Energy	Projected electricity costs of 16 generation technologies and battery storage through 2050. <sup>1,2</sup>
	Levelized Cost of Saved Energy	Cost of administering energy efficiency programs (based on programs implemented from 2009–2015). <sup>1</sup>
<b>Resiliency</b>	Degree Day Projections	Annual heating and cooling degree days from 2020–2050. <sup>1,2,4</sup>
<b>Demographics</b>	Population	Past and projected population from 2015–2050. <sup>1,2,3</sup>
<b>Commercial Buildings Stock</b>	Building Count and Area	Commercial building count and area broken down by size and property type. <sup>1,2,3</sup>

\*For the most recent list of SLOPE's data sources, please see [maps.nrel.gov/slope/about](https://maps.nrel.gov/slope/about). Data is available at: (1) the state level, (2) the county level, (3) the city level, (4) the census tract level.

\*\*Customizable equity filters that highlight burdened or socially vulnerable census tracts are available for these data layers.

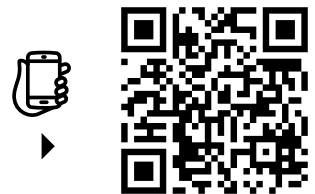
### For More Information

To access SLOPE, visit:  
[maps.nrel.gov/slope](https://maps.nrel.gov/slope).

For questions, please contact  
[slope@nrel.gov](mailto:slope@nrel.gov).

For additional resources related to energy data and hundreds of other resources to support the energy priorities of states, local governments, and K-12 school districts, visit the State and Local Solution Center: [energy.gov/eere/slsc](https://energy.gov/eere/slsc).

To receive monthly updates on the newest resources, news, and funding opportunities, please subscribe to our newsletter, the State and Local Spotlight: [energy.gov/eere/slsc/subscribe](https://energy.gov/eere/slsc/subscribe).



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