

International Jobs and Economic Development Impacts (I-JEDI)



What is I-JEDI?

The International Jobs and Economic Development

Impacts (I-JEDI) model is a free, online tool for analyzing the economic impacts of renewable energy development. The tool estimates the potential gross economic impacts of wind, solar, biomass, and geothermal energy projects for a specific country.

I-JEDI estimates the employment, earnings, gross domestic product, and other economic impacts from the construction and operation of renewable energy projects and across the domestic supply chain. The model results include total economic impacts as well as impacts by industry (e.g., construction, manufacturing, banking services, etc.). This information helps align renewable energy action with key economic development goals. I-JEDI was developed through the USAID-NREL Partnership to support informed renewable energy decisions.

Who can use I-JEDI?



The I-JEDI model has been used by technical institutions, consultancies, and

governments to assess potential economic impacts of energy projects. I-JEDI's interface allows users of varying expertise to work with the model seamlessly. Users with more experience and sophisticated, detailed knowledge about projects are able to tailor their

analyses, but even first time users are able to quickly obtain and interpret results.

How is I-JEDI informing decisions around the world?

Understanding the economic impacts of renewable energy development is critical in enabling a clean energy transition. Analysis of the potential economic impacts of energy sector development,

such as job creation and gross domestic product, can support informed clean energy decision making.

Through a partnership with USAID and NREL, Colombia, Mexico, South Africa, and Zambia are using the model to support clean energy development. Visit the I-JEDI website at i-jedi.org to learn more about how I-JEDI has been used to inform policies and decisions across the globe. I-JEDI can also be adapted for any country using the custom region tool to be released in early 2019.



Select a country and technology to get started...

<p style="font-size: 0.8em; margin: 0;">Country 🇺🇸</p> <input style="width: 90%; border: none; border-bottom: 1px solid white; padding: 2px 5px;" type="text" value="Enter Country"/>	<p style="font-size: 0.8em; margin: 0;">Technology 🇺🇸</p> <input style="width: 90%; border: none; border-bottom: 1px solid white; padding: 2px 5px;" type="text" value="Enter Technology"/>	<p style="font-size: 0.8em; margin: 0;">Dollar Year 🇺🇸</p> <input style="width: 90%; border: none; border-bottom: 1px solid white; padding: 2px 5px;" type="text" value="2009"/>	<p style="font-size: 0.8em; margin: 0;">Project Size (MW) 🇺🇸</p> <input style="width: 90%; border: none; border-bottom: 1px solid white; padding: 2px 5px;" type="text" value="100"/>
<p style="background-color: #00728f; color: white; padding: 5px 15px; display: inline-block; border-radius: 3px;">Start Scenario</p>			

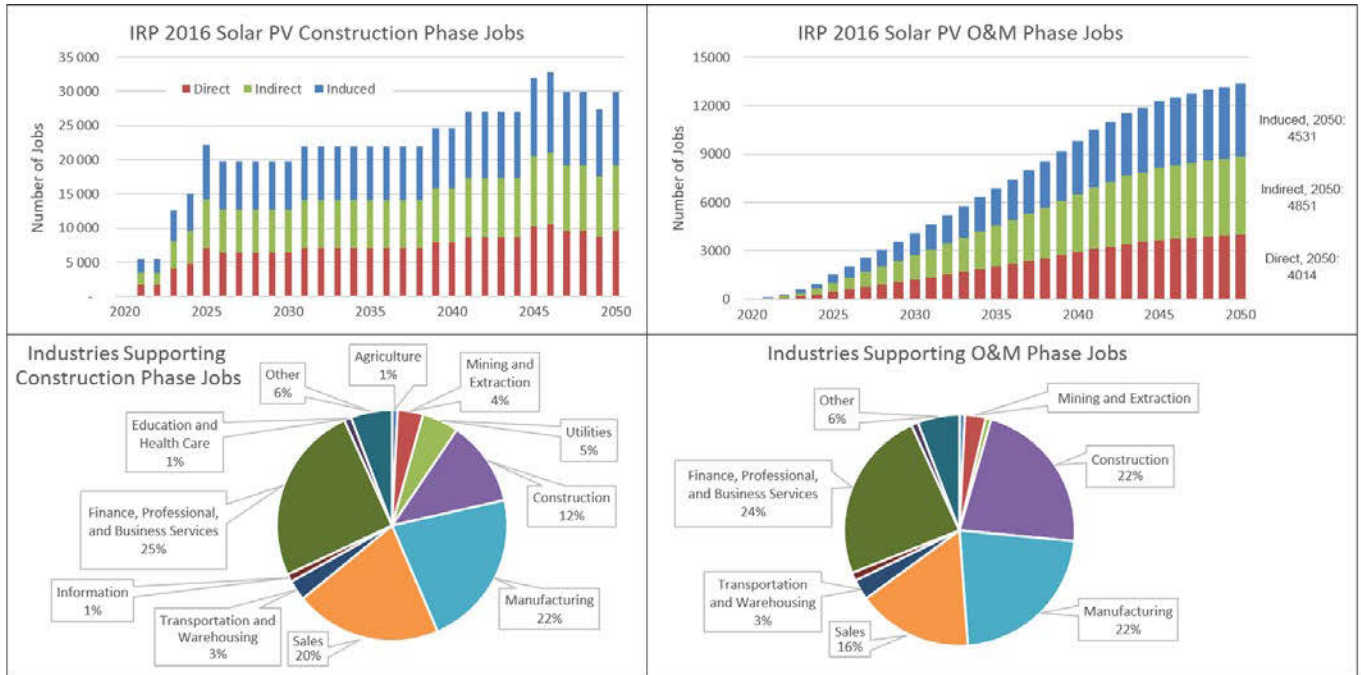
An input-output model is used to quantify the economic impacts of building and operating renewable energy plants.

Spotlight on I-JEDI in South Africa

The Council for Scientific and Industrial Research (CSIR), mandated to provide objective analysis to inform Government of South Africa policies, collaborated with USAID, NREL and the 21st Century Power Partnership to adapt the I-JEDI model for South Africa. Through this partnership, two CSIR staff participated in a two-week fellowship at NREL and were trained to use I-JEDI through a train-the-trainer approach. CSIR is now using the tool to perform analysis related to South Africa's Integrated Resource Plan (IRP) that is informing public discussions related to the IRP and energy

transitions. In addition, the fellows will be providing trainings on I-JEDI to other countries in the Africa region. The I-JEDI South Africa model was adapted to include coal and natural gas, allowing for comparison of job impacts across a wider set of technologies.

An I-JEDI model for distributed generation (DG) was also developed for South Africa in collaboration with the USAID South Africa Low Emission Development program using data from local photovoltaic (PV) suppliers and developers. Training on this DG I-JEDI model was provided to several government and non-government stakeholders in the country.



I-JEDI can be used to estimate the economic impacts of the construction and operation of wind, solar, biomass, and geothermal energy on the economy of a region or country. The example above shows the direct, indirect, and induced impacts of solar PV on jobs by year and industry sector.

How can I learn to use I-JEDI and understand how it supports broader development impact assessment efforts?



Use the resources and training page on i-jedi.org to access the I-JEDI user guide and online tutorial as well as information on broader development impact assessment approaches that can integrate I-JEDI results. For more in-depth support, ask an expert on i-jedi.org in order to access free assistance from I-JEDI and clean energy experts.

i-jedi.org | nrel.gov/usaid-partnership

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The International Jobs and Economic Development Impacts (I-JEDI) model is a free, online tool for analyzing the potential economic impacts and job benefits from wind, solar, biomass, and geothermal energy projects around the world. I-JEDI was developed by the National Renewable Energy Laboratory and is supported by the U.S. Agency for International Development.

The USAID-NREL Partnership addresses critical challenges to scaling up advanced energy systems through global tools and technical assistance, including the Renewable Energy Data Explorer, Greening the Grid, the International Jobs and Economic Development Impacts tool, and the Resilient Energy Platform. More information can be found at: www.nrel.gov/usaid-partnership.

