REexplorer
MAPPING OUR ENERGY FUTURE

The Renewable Energy Data Explorer:

Mapping Our Renewable Energy Future

The Renewable Energy (RE) Data Explorer is a user-friendly geospatial analysis tool for analyzing renewable energy potential and informing decisions. Developed by the National Renewable Energy Laboratory (NREL) and supported by the U.S. Agency for International Development (USAID), RE Data Explorer performs visualization and analysis of renewable energy potential that can be customized for different scenerios. RE Data Explorer can support prospecting, integrated planning, policymaking, and other decision-making activities to accelerate renewable energy deployment.

RE Data Explorer is backed by NREL's geospatial data science team—data scientists, analysts, systems engineers, cartographers, and web developers—

and uses geographic information systems (GIS) to produce maps, analyses, models, interactive web applications, and visualizations that can inform energy planning and decision making around the world.

Data Analysis Decisions for Clean Energy Deployment

Reliable, robust, and validated data are critical for informed planning, policy development, and investment in the clean energy sector. RE Data Explorer was developed to support data-driven renewable energy analyses and decisions that enable ambitious, cost-effective, and achievable outcomes for renewable energy deployment.
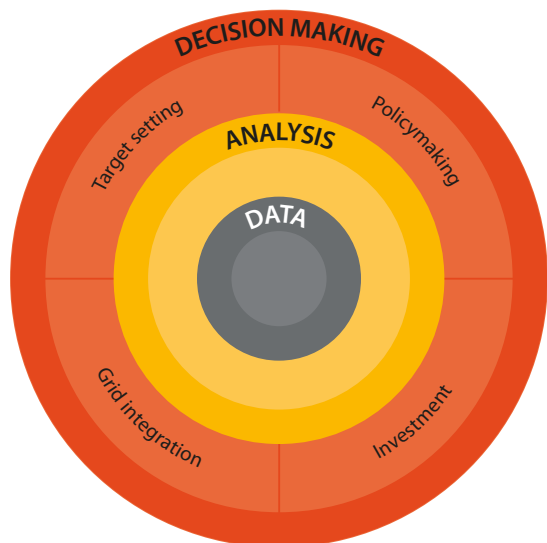
In addition to renewable energy resource data, other complementary, modeled or measured GIS data layers play an important role in decision making. These data layers include land use, weather data, population density, and the location of existing transmission lines, among others.
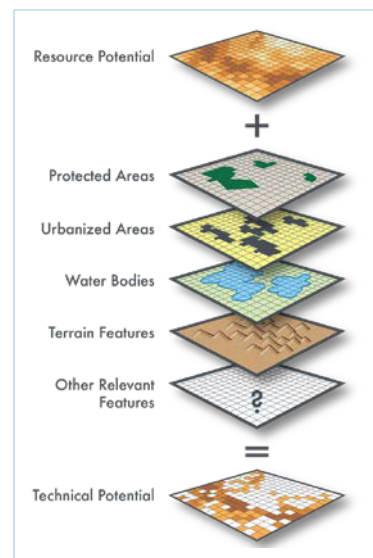
RE Data Explorer visualizes various layers of geospatial data to facilitate smart decision making.
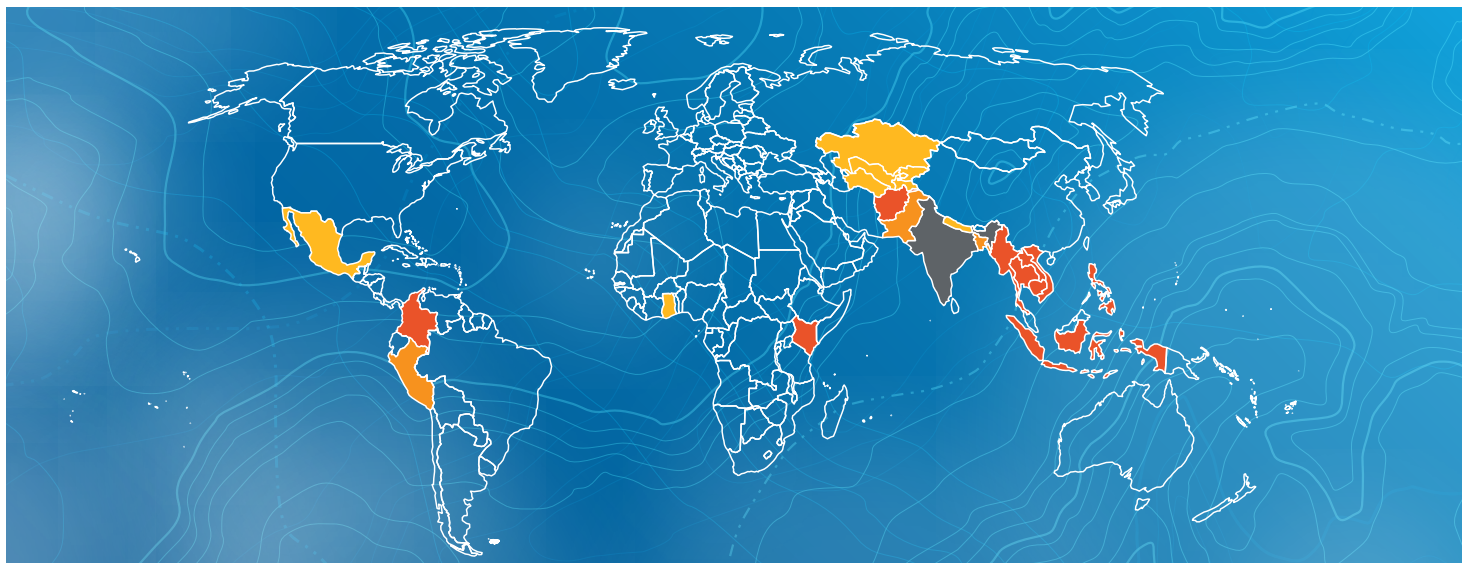
RE Data Explorer tools are currently available for: Afghanistan, Bangladesh, Columbia, Ghana, India, Kenya, Mexico, Nepal, Pakistan, and Peru—plus Kazakhstan and Central Asia (including Uzbekistan, Kyrgyz Republic, Tajikistan, and Turkmenistan), and Southeast Asia (which includes Brunei Darussalam, Burma, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, and Vietnam). Find the tools at *www.re-explorer.org*

USAID FROM THE AMERICAN PEOPLE

NREL Transforming ENERGY

High-quality, robust, and reliable data are at the core of renewable energy decisions— enabling the analyses that drive decision making. By combining these complementary and energy resource data layers in different ways, decision makers can process new information about renewable energy potential to guide target setting, policymaking, investment, and power-sector planning, as shown in the graphic above.

RE Data Explorer and Geospatial Analysis Support Resources

The RE Explorer portal provides training materials and information on data-driven decision making and RE Data Explorer. In addition, RE Explorer experts can provide targeted technical assistance to support geospatial analysis for low-emission development. Visit *re-explorer.org/training* to learn more or *re-explorer.org/expert*.

RE Data Explorer was developed by NREL and is supported by USAID and the U.S. Department of State. The following partners provide data to support diverse applications of RE Data Explorer: the Consultative Group for International Agricultural Research (CGIAR), Carbon Monitoring for Action (CARMA), Danish Technical University (DTU), De Conto Piscinas, Entec ESCO Vietnam, Environment Operations Center (Greater Mekong Subregion), Environmental Systems Research Institute (ESRI), European Space Agency (ESA), Global Administrative Areas Database, International Food Policy Research Institute, Japan External Trade Organization, Open Development Cambodia, OpenStreetMap, Protected Planet, Socioeconomic Data and Applications Center (SEDAC), The World Bank, and the World Resources Institute (WRI).

What Makes RE Data Explorer Unique?

- Provides **best-in-class data from around the world**, including time series data for certain countries, extensive administrative layers, and data sets from key partners such as Danish Technical University (DTU), Energy Sector Management Assistance Program (ESMAP), World Bank, and the World Resources Institute (WRI).

- Offers **intuitive and user-driven analysis capabilities** to inform renewable energy development and deployment decisions including: exclusion analysis, technical potential analysis, and economic potential analysis for certain countries.

- Contains a **breadth of renewable energy resources and technologies** available for analysis including solar and wind and, for certain countries, geothermal, biomass and ocean wave.

- Creates **links between data, analysis and decisions** through curated knowledge products, training resources, and an "Ask an Expert" service to provide **customized support** for using the tool.

- Offers the flexibility of adding **functionalities and analysis capabilities** to respond to the changing needs of countries.

- Provides the opportunity to work with the RE Explorer team to **add localized data** through collaboration with NREL and USAID.
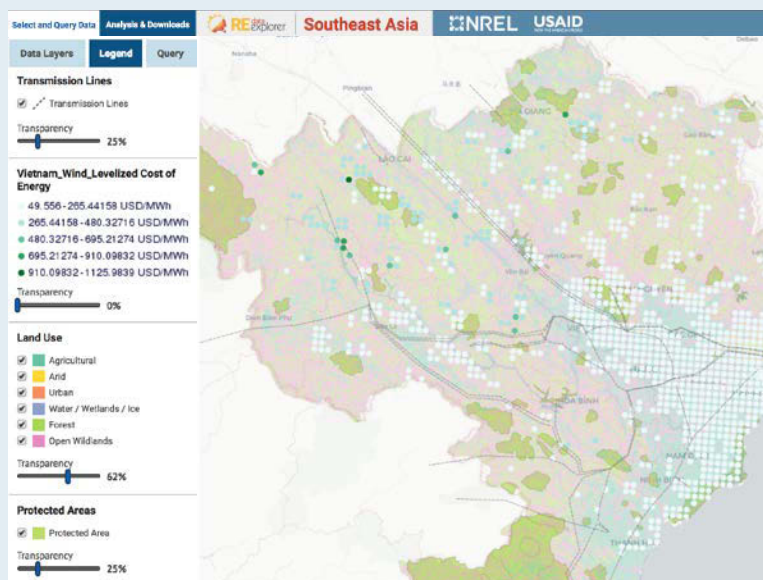
RE Data Explorer provides high-quality energy resource and complementary data and analytical tools in a user-friendly interface to support analyses and decision making.

www.re-explorer.org | nrel.gov/usaid-partnership

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Renewable Energy (RE) Explorer provides renewable energy data, geospatial analysis tools, and technical assistance to support data-driven renewable energy decision making. The RE Explorer was developed by the National Renewable Energy Laboratory and are 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**.