

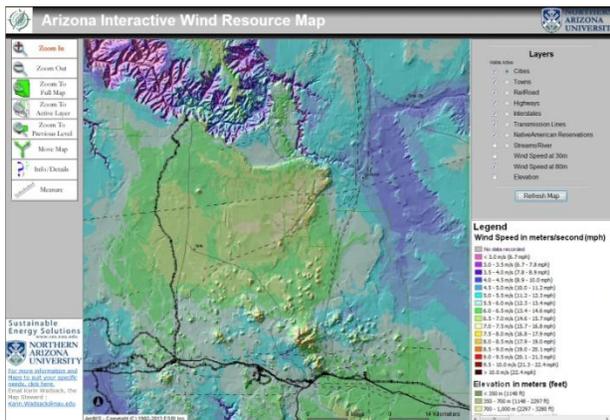
Overview

The Institute for Sustainable Energy Solutions at NAU promotes sustainable energy research, education and outreach programs at Northern Arizona University. *ISES' mission is to provide society with broadly educated energy experts and new technologies, and to help shape energy decision-making and increase energy literacy in the private and public sectors.*

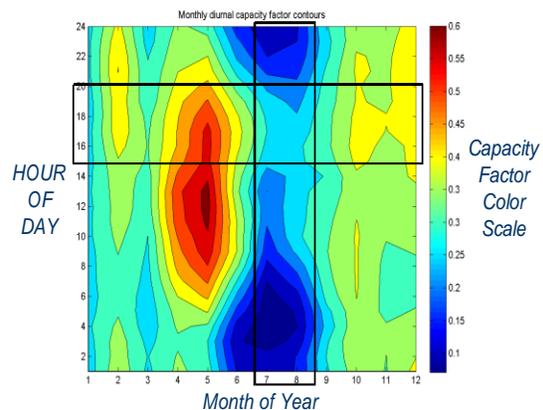


Students gathering data at a research site in Northern Arizona

ISES' work engages the enormous potential expressed in student and faculty initiatives, coursework and research projects to address the national and global shift to clean energy, as well as NAU's sustainability and climate change mitigation commitments.

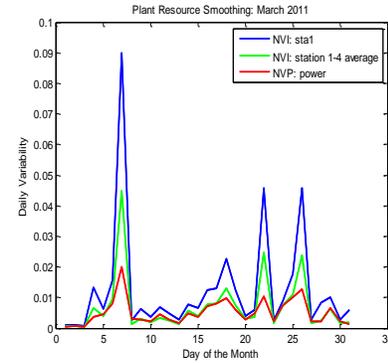
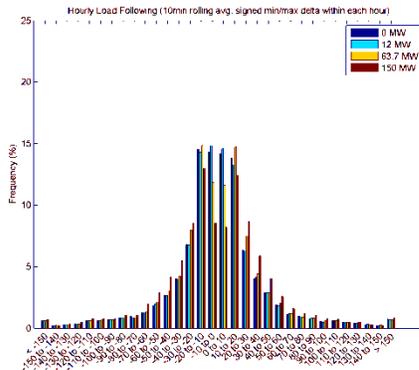


Arizona interactive wind map and contour plot from wind integration study



Core Focus Areas

ISES encompasses renewable energy, energy efficiency, and energy utilization (e.g. smart grid, innovative energy systems, etc.) research and education initiatives at the university, in partnership with research centers statewide and nationally, and via a range of external partners, within the conceptual framework of a quadruple bottom line of economic, environmental, health and security benefits.



Wind and solar resource assessment equipment and research results

Focus areas include:

- **Research, Development, and Demonstration:** Faculty-led projects in partnership with industry, national laboratories, private foundations, Native American tribes, and other external partners.
- **Technology Transfer:** Partnerships that promote development of intellectual property and business start-ups or expansions.
- **Business Planning, Conceptualization, Analysis and Realization:** Development of sustainable business models and rigorous economic evaluation of energy solutions.
- **Educational and Technical Programs:** Enhancement of sustainable energy programs and courses, the development of new programs/courses, and the production of undergraduate and graduate students capable of moving society to a sustainable energy future.
- **Outreach:** Expanding the University's sustainable energy partnerships and outreach programs; education of policymakers and the public; and distribution, publication and presentation of research results.

External Partners

- ISES partners include: renewable energy project developers, resource assessment companies, and manufacturers; electric utility companies; government agencies including tribal governments; national laboratories; other educational institutions; foundations; and not-for-profit and non-governmental organizations.



ISES bicycle generators project and school energy installations