

SMART GRID

Leading the country with the largest concentration of smart grid deployment, research and innovative public-private partnerships.

Issue: Colorado is a unique center of excellence for smart grid deployments, research expertise and public-private collaborations. Colorado has two cutting-edge smart grid projects – the fully integrated \$100 million smart grid project in Boulder and the pilot-project known as FortZED in Fort Collins: each contains important elements of smart grid innovation. Colorado is also home to the InteGrid Lab, the largest simulation lab in North America. In addition, Colorado companies are leaders in energy efficiency, electric vehicles and renewable energy technologies that are being incorporated into these intelligent grid projects. And, Colorado has demonstrated a culture of research collaboration (e.g., especially through the Renewable Energy Collaboratory), so that these projects complement one another and serve as models.

Importance to the Colorado Cleantech Epicenter: Smart grid technologies hold the potential to dramatically decrease energy consumption, reduce peak loads and tap Colorado’s abundant renewable resources. When fully integrated, these technologies have the potential to fundamentally change the way we create, deliver and use energy. This transformation includes innovations across the entire value chain of the electricity delivery system, from large-scale renewable resources and transmission to distributed generation, energy efficiency and in-home devices. Because the electricity system is an interwoven web of service territories, market structures and regulatory regimes, the benefits of a smart grid can only be fully realized in a regional setting. Colorado’s existing projects span the full range of municipal, cooperative and investor-owned regulated utilities. Further federal investments in the smart grid infrastructure of Colorado will unleash a wave of technological innovation, collaborative research and private investment that will create high-value jobs and advance the industry for the entire country.

Federal Opportunities and Programs: The stimulus legislation provides for grants to industry, research funding, workforce training programs and grants to state energy offices. The US Department of Energy and other agencies should fund multiple complementary projects in Colorado leveraging existing partnerships and research expertise. The Colorado delegation should support multiple DOE awards as follows:

- Inclusion of in-home smart grid technologies within eligible energy efficiency programs.
- \$10 million for the University of Colorado Smart Grid Research & Training Facility.
- Funding for additional transmission capacity, the new Energy Efficiency and Management Center (a Colorado research center) and \$213 million to expand the FortZED project.
- Expand the definition of energy efficiency equipment to include smart grid equipment.
- Vehicle-to-grid infrastructure development, \$10 million for electric vehicle (including plug in hybrid electric vehicle) conversions and purchases, and universal standards development.

Contact: Ms. Christine Shapard, Executive Director, CCIA: Chris@ColoradoCleantech.com or 303-623-2690.