#### **Innovation for Our Energy Future**

### **DOE State Energy Advisory Board**

August 12, 2008 Lakewood, Colorado

### Acceleration of State Energy Transformation Possible Topics for Discussion

- Energy Markets and Infrastructure Planning & Assessment
- Energy "Environment" (including air, water, food vs. fuel, sustainabilty issues) Integration
- Policy and Program Design
- Economic Development, Innovation & Workforce Scale-up
- Public Awareness and Support
- Transition Planning
- Other Topics?



# Questions and Comments For Each Topic

- Discussion could focus on three questions:
  - What are the key technology, analytic, policy, and market challenges you face?
  - What roles can NREL and other labs, in cooperation with DOE, play in helping you address these challenges?
  - What specific types of expert assistance, tools, analysis, reports, and other resources would you find most useful in addressing these challenges?

# **Energy Markets and Infrastructure Planning & Assessment**

- Examples of existing resources and initiatives
  - Regional assessment and integration (e.g. WGA like efforts)
  - Resource data, GIS and market sector analysis tools
  - TAP lab expert assistance and new toolkit (www.eere.energy.gov/wip/tap.cfm)
  - Wind Powering America, Solar Cities, Clean Cities, etc.
  - EPA State Clean Air Partnership
- Opportunities for enhanced cooperation:
  - Cooperation on strategic planning, goal setting, options prioritization across the RE and EE portfolio
    - Shared national and state goals and roadmaps?
  - State and regional RE and EE supply curves and improved data on technology performance and cost
  - Sector strategies, economics, implementation approaches
  - Expanded regional integration



#### **Energy-Environment Integration**

- Examples of existing resources/initiatives
  - DOE energy-air quality initiative (pilot projects, fact sheets, analysis tools) and related EPA activities
  - DOE and lab life cycle and integrated assessments and tools
- Opportunities for Enhanced Cooperation:
  - GHG displaced emissions quantification methods and analysis of State Climate Policies and State-Federal Policy Interactions
  - Integrated assessment techniques & tools tailored for state use
  - Carbon neutral/sustainable communities initiative
  - Life cycle analysis cooperation and information sharing (materials, energy, emissions, land use, economic interactions)

### **Policy and Program Design**

- Example of Existing Resources/Initiatives
  - State Clean Energy Policy Analysis Quantifying RE and EE Policy Impacts and Identifying Best Practices (<a href="http://www.nrel.gov/applying\_technologies/scepa.htm">http://www.nrel.gov/applying\_technologies/scepa.htm</a>)
    - Related work on State RE and EE Scorecard Performance and Policy Rankings
  - Green Power and RECs Initiative
  - National Action Plan on Energy Efficiency
  - TAP, Wind Powering America, Solar Cities, Clean Cities, Building Codes, etc.
- Opportunities for Enhanced Cooperation
  - More In-depth Policy Impacts and Best Practices Analysis
  - State Policy Innovation Support
  - Financing Mechanisms and Harmonization
  - Training for State and Local Policy-Makers
  - Targeted Outreach to PUCs and State Legislators
  - Community programs



# **Economic Development, Innovation and Workforce Scale-Up**

- Examples of Existing Resources/Initiatives
  - NREL joint research with CEC and NYSERDA
  - Research and economic development collaboration with CO
  - New NREL training programs with MIT
  - Economic impact analysis tools and reports

#### Opportunities

- Economic development and research partnerships with other states
- Local & State economic impact analysis support
- Blue- & Green-Collar job creation and training opportunities
- Partnership to attracting new domestic or international manufacturing businesses in states and regions
- Community college & trade school instructor education and curricula development
- Expanded training programs with other universities



### **Public Awareness and Support**

- Examples of Existing Resources/Initiatives
  - Energy Star Radio PSAs
  - DOE and EPA program specific outreach activities

#### Opportunities

- Joint public education campaigns
- Outreach materials that states can adapt (brochures, PSAs, directories)
- "Consumer Reports" technology comparisons
- Training for community and state and local officials

### **Transition Planning**

- Launching an effort with stakeholders to develop recommendations for an enhanced federal and state and local EE and RE partnership
  - Initiating discussions with state and local associations, officials, and others
  - Will prepare a report presenting a shared vision for EE and RE market transformation and recommended federal and state and local partnership actions to achieve this vision (Nov, 08)
- We would be pleased to partner with STEAB and most interested in your feedback on:
  - STEAB participation
  - Process for engaging states
  - Vision and priority actions

