

Solar Innovation and Technology Center Summary of Meeting of Advisory Group - 11 December 2009

On December 11, 2009, Senator Harry Reid and President Neal Smatresk (UNLV) conveyed a group of approximately 60 people (see attached lists) from the public and private sector to provide input on the structure, focus, and need for a Solar Innovation Technology Center. At this meeting, there were small group discussions followed by a larger group discussion on the needs in the areas of Workforce / Training, Marketing and Finance, Economic and Policy Making, Infrastructure and Manufacturing, Technology Transfer and Commercialization, and Research. The notes below summarize the major comments from the group. This represents individual comments and in other cases an abbreviated version of overlapping comments. Portions of these comments will be integrated into the full proposal.

Workforce / Training

- Provide advanced technology certification at low/medium/high level education
- Link manufacturers with labor unions.
- Educate local and state policymakers on solar issues, policy roadblocks
- Continue and expand apprenticeship training in partnership with Electrical Joint Apprenticeship and Training Committee (JATC).
- Provide Train the Trainers workshops for those that are conducting advanced training in solar energy.

Marketing/Market/Finance

- Serve as an agenda-neutral center for information (clearinghouse, website, one-stop shop)
- Educate public on: current programs, tax incentives, rebate process, the payback process, technology, small-scale solar technology (i.e. small solar chargers for small home appliances or batter chargers), and availability of current trained work force
- Create “incubators” for new manufacturing businesses
- Provide financing infrastructure to bring capital to proposed programs
- Examine state investment dollars and union pension dollars to invest in solar technologies
- Provide education on marketing tactics (up the ladder)
- Examine interactions between national security and energy security.
- Capitalize on the convening ability of Las Vegas to become a center for the exchange of ideas in solar energy.

Economic/Policy Modeling

- Provide technological and economic models and analysis of financial impacts
- Serve as clearinghouse to accelerate the approval process for projects
- Map resources (micro and macro scale)
- Provide policy integration among various agencies
- Participate in the new environmental impact statement (EIS) for the Nevada Test Site
- Tie into state visioning committee
- Leverage expertise from the Brookings Institution to examine federal policies vis a vis state policies
- Integrate more solar forecasting into the overall energy plan

Infrastructure/Manufacturing

- Attract solar tech manufacturers to Nevada (NDA can help)
- Bring together new products and the trained labor for delivery to the community
- Provide necessary materials to build solar modules, solar water heaters, solar storage
- Facilitate the connection of technologies from various local industries
- Examine ways to invest state and city pension funds in Nevada manufacturing companies
- Solve land, water, and infrastructure obstacles to bringing in new companies

Tech Transfer

- Provide intellectual property (IP) evaluation for commercialization on a national level – Solar Tech Funnel
- Invest funds into higher risk projects
- Involve banks and lending institutions
- Develop a network of venture capitalists/Angels
- Develop a more sophisticated and efficient model of tech-transfer

Applied Research

- Interaction between concentrated solar and radar systems
- Transmission infrastructure
- Power storage and battery storage.
- GIS databases for informed decision making.
- Heat transfer
- Solar water heating
- Simulation and modeling with high performance computing
- Application testing (i.e., verification and certification) of new products
- Meteorological forecasting and modeling
- Distributed Systems – photovoltaic and thermal
- Zero Energy Home – codes and specifications
- Full System Analysis – deployment
- NREL partnerships

Basic Research

- Prioritize research and development in the early stages of the center
- Prioritize interdisciplinary approach
- Partner with national Labs
- Storage of solar energy
- Reliability of grid connection and interconnection
- Algae development
- Thermal transfer efficiency to reduce heat losses