

Accelerated Commercialization of Federally-Sponsored Energy Efficiency and Renewable Energy Technologies

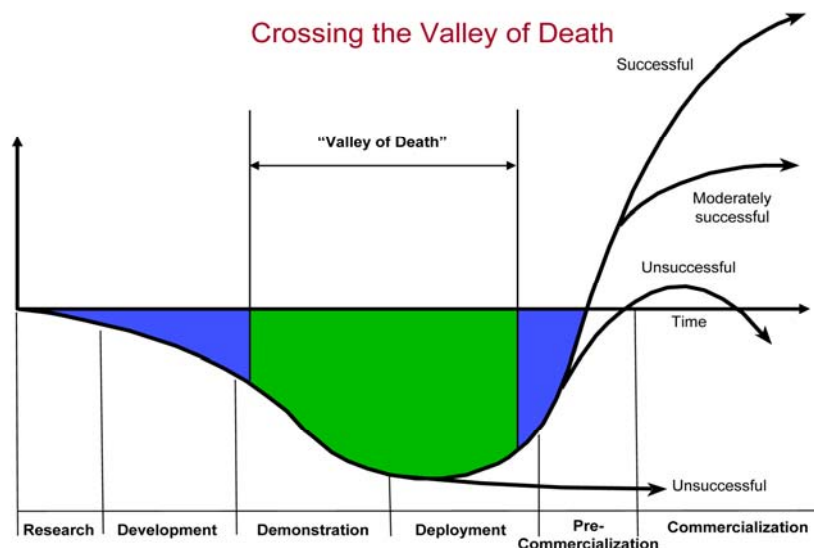
May 2007

Introduction: The State Energy Advisory Board (STEAB) recently met with the DOE Assistant Secretary of Energy Efficiency and Renewable Energy (ASEE), Mr. Alexander A. (Andy) Karsner, and discussed the imperative for achieving dramatic increases in adoption of federally-funded and researched technologies through creative thinking and out-of-the-box approaches. STEAB agrees with this vital need and offers the following thoughts and recommendations.

Goal: The goal is to achieve an order of magnitude increase in the application of federally-sponsored energy efficiency and renewable energy technologies with an associated major decrease in U.S. demand for greenhouse gas producing fossil fuels, as well as dependency on foreign sources of fossil fuels.

Strategy: To accomplish this will entail the rapid transfer and commercialization of emergent technologies from national laboratories, state research institutions and federally-funded research and development in industry, academia and other non-governmental organizations.

Challenge: The “Valley of Death,” depicted below, represents the problem of bringing technologies to the market. Technologies that have been developed to the point of readiness for commercial application do not automatically make it across the “Valley.” Successful transition into the market often depends upon vigorous demonstration through nation-wide information dissemination followed by active Government participation in the deployment process to catalyze linking and sustain partnering among interested and essential parties. The Board believes that the current combination of DOE program and field offices, national laboratories, academic institutions and their extension services, technical societies, and State and local political entities do not have sufficient combined or coordinated focus, reach or resources to introduce the emerging technologies to a critical mass of players, such as entrepreneurs and innovators, component and equipment developers and manufacturers, venture capitalists, major users such as builders, consumer groups, and the general public. Additionally, current mechanisms and resources to catalyze and facilitate the necessary linkages and partnering are not sufficiently robust to bridge the gap. These mechanisms need to cut across the array of technologies and players and help identify and bring together and sustain winning combinations. We believe this will require a new paradigm.



Proposal: STEAB recommends that EERE develop a national web-based solution that:

- compiles and regularly updates a matrix and searchable database of all emergent technologies indicating the source, status, technical details, market potential, and other relevant characteristics;
- compiles and maintains a registry of all interested participants by role category (manufacturer, venture capitalist, etc.);
- compiles and maintains a registry of coordinators and enablers (DOE HQ and field office representatives, State and local energy offices, university extension services, lab researchers, etc.) who could provide technical and economic development assistance, find and bring together prospective partners, and facilitate the adoption process;
- conducts regular technology forums and virtual laboratory tours using web cast technology and maintains downloadable recordings for later access;
- offers guidelines and best practices for linking and collaboration to achieve commercialization; and
- includes linkages to the primary database on state and federal clean energy and energy efficiency incentives – DSIRE – The Database of State Incentives for Renewable Energy (www.dsireusa.org).

Design and Implementation: To succeed, we believe this initiative must have:

- well-defined expectations including inputs, outputs, timeframes and expected outcomes;
- the priority from the DOE's Office of Energy Efficiency and Renewable Energy (EERE);
- a dedicated and aggressive champion within EERE with sufficient knowledge, authority and resources to fast-track the initiative, overcoming barriers and inertia;
- a budget adequate to support the initiative and allocated to the EERE Program Managers.
- a national team that represents and can commit resources (within limits) of essential functions/organizations; and
- regular briefings and updates to ASEE.

STEAB believes this recommendation addresses an urgent national need and has great potential for taking a substantial step forward. We stand ready to discuss this recommendation further and offer the full weight of the Board in its support.