

“Renewable Energy in America: the Policies for Phase II”

The American Council On Renewable Energy (ACORE) and over 30 Supporting Organizations are calling for new national goals and a public policy framework called “Phase II” for Renewable Energy in America.

Historical Achievement: Phase I

Phase I is defined as the 30 year period from about 1973 to 2002, starting with the original oil embargo and energy crisis. The 1970s were characterized by calls for energy independence, efforts to establish federal government leadership, passage of a tremendous series of energy-related laws, formation of the US Department of Energy (DOE) in 1977, and funding of a technology RD&D program to create new energy technology options with which the country might address its energy and environmental challenges.

From 1973-2002, the US federal government invested \$99.2 billion dollars in energy research, development and demonstration (RD&D), including \$49.1 billion for nuclear power, \$24.8 billion for fossil fuels, \$14.2 billion for renewable energy, and \$11.1 billion for energy efficiency (Source: Congressional Research Service).

The \$14.2 billion dollars of investment in renewable energy RD&D included programs for solar heating & cooling, solar thermal-electric, solar photovoltaics (PV), wind power, geothermal energy and power, hydropower (river and ocean), and biomass (bioenergy, biofuels and bioproducts), plus related investments in power systems, energy storage, and other areas.

The United States’ investment in renewable energy technology was a government program success. It has achieved the original goal of creating technology options. Today, we see an initial round of commercially-available and economically-viable technologies in every renewable energy category, ready for widespread deployment, continued improvement, and further cost reduction through continuing R&D and technology transfer programs.

Looking Forward: Phase II

In December 2004, ACORE and its Supporting Organizations convened a policy forum entitled “The Call for Phase II” to ask the questions: has Phase I been successful, are we ready for a Phase II, and what would a Phase II look like? The deliberations centered around the basic question:

“What are the national policies that will result in renewable energy contributing 20%-30%-40% of national energy supply by 2020-2030-2040?”

This presented a new policy challenge, breaking away from decades of thinking about developing new technology, overcoming institutional barriers to commercialization, and creating initial demand to drive down the costs through volume manufacturing of the equipment and installation of systems. It was time to take a broad look across the country, seeking new insights about the opportunities and challenges to be addressed.

ACORE held regional policy roundtable meetings in Austin, Boston, Chicago, Los Angeles, Phoenix, Portland, Raleigh, Sacramento, San Diego, San Francisco, Worcester, and Washington, DC during July and August 2005. The meetings brought together 20 to 40 experts on renewable energy technologies, economics, applications, industry, regulation, and policy. In total, over 300 experts participated in the series. The findings were stunning – raising fundamental questions about how we think about policy, and our assumptions such as:

- Would the U.S. be a higher or lower taxed society if renewable energy increases? The answer appears to be “lower” and should be analyzed carefully as a new rationale for support.
- How would electric utility decision making change, and renewable energy options be seen, if all utilities were required to offer customers 5-,10-, and 20- year fixed rates? The answer appears to be “yes, fundamentally” as decision makers would need to grapple with life-cycle economics. Phase II includes a careful rethinking of regulatory economics, to ensure that the rules are consistent with societal intent, and all parties receive fair value.
- How much more would it cost Detroit to produce all vehicles with flex fuel capability? Some say that the answer is “zero”. This would allow every American to purchase biofuels wherever available.
- What are the current government incentives for consumers to purchase more efficient cars and/or biofuels? Some would say “none” because the current incentives are directed at the suppliers, not the consumers. How could we have missed this, for all these years?
- What would happen if we had to get a building permit *not* to put a solar system on our new houses? This raises very fundamental questions about why we have permitting to begin with.
- What is the "natural geography" of strategies that will put renewable energy into widespread use in America – national, multi-state regional, state, sub-state regional, or local? Certainly a wide debate here, but the consensus seems to be that the natural boundaries for renewable energy strategies are regional; not exactly matching the lines of political organization. Implication: There is a need for new levels of collaboration between levels of governments.
- Which government incentive for renewable energy would Wall Street prefer? A 30% subsidy on initial cost of the systems? A 20-year assurance of project revenues? A loan guarantee program? Although government experts seem to think Wall Street wants cost sharing, nothing could be further from the truth. Wall Street wants assurance of revenues, and they'll take care of costs and profits. This suggests a shift from cost-based incentives to performance-based incentives.

There is no silver bullet in Phase II, no single answer or philosophy that will win the day. The vastness of our country, the very regional nature of the resources, the patchwork of political jurisdictions – all point to a national strategy that first of all accommodates the diversity of opportunities and issues. Public policy leadership in Phase II must therefore come from state and local governments, but also, there must be federal leadership to facilitate the spectrum of strategies, policies, and programs. Indeed, the shift from Phase I -- a clean and neat funding of RD&D through traditional government funding mechanisms – to Phase II, where policy must accommodate the breadth of differences across a huge nation, will be a great challenge, and worth our best efforts.

