

Special Issue on Alternative Energy

Research, Development, and Innovation:
Washington Update

Alternative Energy Policies
**Washington is getting serious about
alternative energy.**

With fuel prices soaring, Middle East instability threatening U.S. energy security, and the continued drumbeat on global warming, the Federal government has stepped up its role in alternative energy. Three key policies lay the groundwork for investing billions of dollars in the next few years:

- *The National Energy Policy Act of 2005*, signed last August by President Bush, is the first comprehensive national energy policy in a decade. The Act authorizes more than \$4 billion during FY 06—FY 10 for hydrogen and fuel cell R&D, demonstrations, and procurement, as well as nearly \$3 billion for other renewable energy such as biomass, bio-fuels, solar, and alternative fuel vehicles.
- *USDA Farm Energy* provides financial support for renewable energy systems, and for farmers to transition to higher value products including farm-based renewable energy.
- President Bush's *Advanced Energy Initiative* boosts focus and funding on plug-in hybrid vehicles, cellulosic ethanol, hydrogen fuel cell vehicles, wind power, and solar technologies.



***The White House and Congress agree: we
need to invest in alternative energy.***
**FY 07 Department of Energy Renewable
Energy Budget Status (in millions)**

	President's Request	House	Senate
Hydrogen	\$ 195	\$195	\$ 189
Biomass/Biorefinery	\$ 149	\$150	\$ 213
Solar	\$ 140	\$148	\$ 148
Wind	\$ 43	\$ 43	\$ 39
Geothermal	\$ 0	\$ 0	\$ 22
Vehicle Technologies	\$ 166	\$177	\$ 180

**Federal Alternative Energy Grant, Loan, and
Demonstration Programs**

Federal energy policies authorize billions for a mind-boggling array of grants, loan guarantees, tax credits, and directed procurements.

Companies, universities, and other organizations can compete for funds to support a range of activities in alternative energy including: research and technology development; demonstrations; business start-up, development, operation, and expansion; purchase and installation of renewable energy systems and

production plants; market development; and government procurements. Individual grants range from a few thousand dollars to as much as \$80 million over four years. **TechVision21 Inside View:** *It is increasingly clear that the Federal government aims to grow a U.S. alternative energy industry.*

Sample Program Highlights

- **USDA Renewable Energy and Energy Efficiency Program:** Grants and loan guarantees for purchase of renewable energy systems, including production plants and wind farms; agricultural producers and rural small businesses eligible; \$500K grant max; \$7M loan guarantee max; match required.
- **USDA Value-Added Producer Program:** Grants for planning, working capital for marketing, and operating farm-based renewable energy ventures; agricultural producers eligible; \$100K planning grant max; \$150K working capital grant max; match required.
- **USDA Bio-based Products/Bioenergy Program:** Loan guarantees for biomass conversion to bio-based products/bioenergy; supports working capital, machine/equipment purchase/installation, building construction, and real estate purchases; most groups eligible; \$25M loan guarantee max.
- **DOE Innovative Technologies in Support of the Advanced Energy Initiative:** Loan guarantees for early commercial projects for technologies that support AEI goals; covers design, construction, and project start-up; most renewable energy sources and alternative fuel vehicles included; most groups eligible; \$2B loan guarantee pool.
- **DOE Hydrogen Fuel Initiative:** \$50M available over next 3 years for basic hydrogen research grants; most groups eligible; no award ceiling; focused program.
- **DOE Commercial Demonstration of Integrated Bio-refinery System:** Grants cover design, construction, and operation of bio-refineries using lignocellulosic feedstocks; most groups eligible; \$80M award max; match required.
- **DOE Solar America Initiative:** R&D to reduce PV solar systems/component costs; commercial entities eligible; \$20M award max.
- **DOE Clean Cities:** Grants for alternative fuel refueling infrastructure; \$3M award max.
- **DOE Biomass R&D Initiative:** R&D, demonstration of biomass-based products, bioenergy, and biofuels; most groups eligible; \$2.5M award max; match required.
- **DOE Development of Power Electronics/Electric Motor Technology for Hybrid, Plug-in Hybrid, Fuel-cell Vehicles;** most groups eligible; awards in \$3M-\$8M range; match required.



Energy Department Announces Winners of Major Hydrogen Awards

Energy Secretary awards \$100 million for fuel cell R&D.

On October 24, Energy Secretary Sam Bodman announced \$100 million in DOE funding for 25 hydrogen R&D projects at private companies, national labs, and universities. These fuel cell-related projects focus on fuel cell membranes, water transport within fuel cell stacks, catalysts, cell hardware, innovative fuel cell concepts, and impurities. Grantees will contribute another \$27 million to these projects. Big winners include 3M with two awards totaling \$17.3 million, and the Latham, New York-based Plug-Power, which will receive \$8.6 million.

Democrats Take Hill, Take on Alternative Energy

Democrats' innovation agenda aims for energy independence in 10 years.

With their new power in Washington, Democrats on the Hill plan to rush their Innovation Agenda to the legislative front burner. As a component of this innovation plan, the Democrats pledge to rapidly expand production and distribution of synthetic and bio-based fuels, and to deploy new engine technologies for flex-fuel, hybrid, plug-in hybrid, and bio-diesel vehicles. They also pledge to create a new DARPA-like entity in the Department of Energy to provide seed money for advancing next generation energy technologies emerging from areas such as biotechnology, nanotechnology, solar, and fuel-cell research.

About **techvision21**

With a powerful combination of business, technology and government expertise, TechVision21 can help your company:

- Pinpoint and secure Federal funding and market opportunities;
- Navigate e-Business rules and regulations; and
- Promote and protect your interests in Washington.

Our Services Include:

- Research & Analysis:** TechVision21's market research, economic analysis, and policy insights will keep you ahead of the curve...and ahead of the competition.
- Your Washington Office:** Our team of Executive Branch and Capitol Hill veterans will help you set your goals, craft your strategy and message, open doors and get results.
- Federal Funding:** TechVision21 can help you pinpoint and secure federal funding and market opportunities.

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