



## **Energy innovation: an economical path forward**

By Christine Todd Whitman and Dr. Patrick Moore

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This country is at an economic and environmental crossroads and needs to chart a more sustainable path forward. Innovation in the energy sector has the potential to be a critical economic driver and opportunity. America's business and policy leaders must embrace energy innovation now or cede market leadership to China or other countries already flexing their economic muscle in this sector.

Congress has the chance to generate substantial, long-term economic benefits, protect the environment, and address the country's long-term energy needs, all by supporting innovation and expansion of America's clean energy industries.

Nuclear is one clean energy sector where growth is imminent. Each new plant creates as many as 2,400 construction jobs, at a time when one out of every four construction workers is unemployed. And because nuclear energy is virtually emissions-free, each additional plant prevents carbon emissions from fossil fuel plants that would otherwise fill the air.

These economic and environmental benefits are already evident in Waynesboro, Georgia, where 700 workers are preparing a site for two advanced nuclear reactors. This is Georgia's largest construction project ever, ultimately employing up to 3,500 people. Once up and running, the reactors will employ another 800 highly-paid workers and generate electricity for 1.4 million homes.

With 22 new reactor applications under federal review, this economic development scenario could play out in South Carolina, Maryland, Texas, Virginia, North Carolina, Florida and other states. America is going to need 23 percent more power by 2030. Where will it come from if we want to slash carbon emissions while meeting that demand? The answer: in addition to much greater conservation, we need a balanced portfolio of clean energy alternatives, including wind, solar thermal, geothermal and nuclear energy.

Today in Washington the Clean and Safe Energy (CASEnergy) Coalition will join with leaders from the manufacturing, economic development and wind energy sectors to unveil a "Policy Roadmap for Clean Energy," which makes the case for a diverse U.S. clean energy portfolio that places a premium on job creation.

The roadmap makes four broad policy recommendations to chart a viable course for a sustainable clean energy policy:

### 1 – Enact policies to take control of America's energy security

Ninety-five percent of the country's transportation infrastructure is powered by oil, and more than half of it comes from overseas. Federal support for electric and hybrid vehicles is a good start to correct this dependency, but those vehicles will only be as clean as their electricity source. The current electric grid won't be able to handle large volumes of renewable energy technologies unless it's modernized. Advanced nuclear energy facilities operating 24/7 will be needed to help green the vehicle fleet.

### 2 – Ensure access to financing for clean energy projects

Access to capital is the biggest hurdle clean energy developers face. Credit is still tight and private investors are leery of financing large infrastructure projects without guaranteed rates of return. Federal incentives, such as clean energy loan guarantees, help ease access to capital markets and ultimately reduce the cost of electricity to consumers.

Existing loan guarantee authority for nuclear energy makes possible only two or three more projects. President Obama has proposed tripling the loan guarantee volume available for new plants as part of his 2011 budget. It's a step in the right direction, but the Electric Power Research Institute estimates America will need at least 45 new



reactors, alongside similar increases for other clean energy sources, in order to meet the 42 percent cut in greenhouse gas emissions outlined in last year's Waxman-Markey energy bill.

### 3 – Increase investment in clean energy jobs

Another challenge is training a new generation of workers since half of the nuclear energy industry's workforce will be eligible to retire over the next decade. Nuclear energy alone could create as many as 70,000 jobs in the coming years if all of the plants that are needed get built. Federal job-training grants are critical to ensure that eligible companies in the clean energy supply chain will be able to fill high-paying jobs with American workers.

### 4 – Address nuclear used fuel storage needs

For five decades the nuclear energy industry has securely safeguarded used fuel at nuclear plant sites as a bridge to longer-term solutions. Federal action on storage as well as support for research into advanced, proliferation-resistant recycling technologies would allow America to extract the maximum amount of energy from the fuel while minimizing the amount that requires disposal.

Such economic development, energy security and clean air benefits should not be limited to Waynesboro, Georgia. Clean energy companies are ready to hire, creating thousands of new jobs that will help the country meet its growing energy needs while preserving the environment. With targeted policy support, we can help ensure that clean energy's economic and environmental benefits are enjoyed by all.

*Whitman is a former administrator of the EPA and governor of New Jersey. Moore is a co-founder and former leader of Greenpeace. They co-chair the Clean and Safe Energy Coalition (CASEnergy), a national grassroots coalition that promotes the economic and environmental benefits of nuclear energy as part of a green-energy economy. To read more about the "Policy Roadmap for Clean Energy" please visit [www.cleansafeenergy.org](http://www.cleansafeenergy.org)*

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