



## Alternative Energy Report

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### **Stage Set for Rendell's Budget Address; Upcoming Budget Hearing Schedule**

Governor Rendell will give his last state budget address on Tuesday, February 9. In anticipation of the address, the House and Senate have begun holding their annual budget hearings with experts and independent state agencies to determine what to expect in the economy, and what increases or cuts the agencies can afford to incur in the coming fiscal year, which begins July 1.

Democrats have proposed an optimistic timeframe for an on-time budget using a two year budgeting process.

The Governor has suggested he will propose a state budget increase of "about four percent," despite projections of a current year deficit of \$450 million. Last week, House Appropriations Chair Dwight Evans (D-Philadelphia) outlined his process for House budget consideration, and set a goal of approving a budget bill in that chamber by May 1.

This week Senate Democrats said their caucus had five major budget priorities for 2010-2011. These include an on-time budget with no broad-based tax increases; maintaining education progress; investing in job growth and economic development; targeting state resources to wisely save tax dollars; and retooling failed or failing state programs.

Senate Minority Leader Robert Mellow said PA needs to reform the business tax climate projecting a decrease in the corporate income tax to 7.9percent, and closing the "Delaware Loophole" which he projected would yield an additional \$500 million in revenues. Senator Jay Costa (D-Allegheny) said the Democrats would concentrate on retraining for the recently unemployed, and push for greater investment in green jobs and energy sector jobs.

Below is a list of pertinent budget hearings scheduled at this time.

#### **House Appropriations**

|             |  |
|-------------|--|
| February 16 | Department of Community and Economic Development   |
| February 22 | Department of Environmental Protection;<br>Department of Conservation and Natural Resources<br>Department of Agriculture |
| February 25 | Office of the Governor / Executive Offices /<br>Secretary of the Budget  |

#### **Senate Appropriations**

|             |  |
|-------------|--|
| February 16 | Department of Revenue/Governor's Budget Office   |
| February 17 | Department of Agriculture  |
| February 22 | Department of Community and Economic Development<br>Executive Offices and Office of the Governor |
| February 23 | Department of Conservation & Natural Resources<br>Public Utility Commission                      |
| March 1     | Department of Environmental Protection   |

#### **Obama Unveils His Budget Plan for the US**

*DOE Requests \$2.4*

*Billion for Renewable  
Energy, Efficiency in FY  
2011*

In his first State of the Union Address, President Obama outlined his vision for additional investments in clean energy, noting it as a priority for his administration. This week, the president announced his 2011 budget request, which included a five percent increase for the Department of Energy's Office of Energy Efficiency and Renewable Energy, including programs such as solar, wind, geothermal, biomass, water power and hydrogen fuel cell technologies.

Additional funding for the Advanced Research Projects Agency - Energy (ARPA-E) totaling \$300 million would be designed to spur innovation in the high-tech areas that America needs to address its energy challenges and strengthen its research and development potential.

These increases, coupled with advances in clean energy technology are aimed at steering the U. S. toward a low-carbon economy, less dependent on foreign oil. Below are clean energy budget highlights from the Departments of Energy and Agriculture, and the Environmental Protection Agency.

### **Department of Energy**

The President's FY 11 budget request for the Department of Energy's (DOE) Energy Efficiency and Renewable Energy (EE/RE) programs is \$2.36 billion (approximately eight percent of the total DOE budget), an increase of \$113 million (five percent above the FY 10 appropriations). Nuclear Energy programs received an increase of \$42 million (five percent above FY 10 appropriations) and Electricity Delivery and Energy Reliability programs increased by \$14 million (five percent above FY 10 appropriations). The budget request for fossil energy decreased by \$191 million (20 percent below FY 10 appropriations), primarily through a \$105 million cut (43 percent below FY 10 appropriations) in the Strategic Petroleum Reserve. The Advanced Research Projects Agency - Energy (ARPA-E) program was authorized in the America COMPETES Act of 2007 (P.L. 110-69), and is responsible for funding specific "high-risk, high-payoff, game-changing research and development projects to meet the nation's long-term energy challenges." The FY 11 budget includes a request of \$300 million for this program, following its initial FY 09 funds of approximately \$400 million.

### **Department of Agriculture**

The President's FY 11 budget request includes \$708 million for U.S. Department of Agriculture (USDA) farm energy programs (\$666 million in mandatory funds and \$42 million in additional discretionary funds), and requests more than \$220 million in funds for Department of Energy biomass and bioenergy programs. Additional bioenergy-related funding is provided through the DOE's energy sciences program, which funds the ongoing Bioenergy Research Centers. Additional funding may be provided on a competitive basis through DOE's Energy Advanced Research Projects Agency and DOE's Innovative Technology Loan Guarantee Program.

Overall biomass energy funding levels (mandatory and discretionary) would increase less than two percent in FY 11 compared to the FY 10 regular appropriations. However, bioenergy programs also are receiving a significant infusion of additional funds (\$777 million) in FY 10 through the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5). In addition, significant additional federal mandates and incentives for bioenergy production are provided through the Renewable Fuel Standard and in the tax code (various biofuel and biopower producer tax credits, investment tax credits, and fuel blender tax credits).

By far, most of the bioenergy funding in the administration's request would be dedicated to research, development, demonstration, and deployment of cellulosic and advanced biofuels. Relatively little would be allocated to developing and promoting advanced biomass heat, power,

or combined heat and power applications - applications that offer the potential to achieve much higher energy conversion efficiencies from biomass and that could reduce overall greenhouse gas emissions more dramatically than when biomass is used only for power or transportation fuels.

## **Environmental Protection Agency**

The President's FY 11 budget request for the Environmental Protection Agency (EPA) is \$10 billion, a decrease of approximately \$300 million (three percent decrease from FY 10 appropriations). EPA Administrator Lisa Jackson indicated that the slight cut in EPA funds for FY 11 are in response to the President's call to streamline agency operations through targeted program investments. The Greenhouse Gas (GHG) Reporting Registry increased 25 percent to \$20.8 million, as EPA prepares to implement its GHG endangerment finding under the Clean Air Act. In addition, the President has requested \$30 million in new funds to support developing and deploying the technical capacity to address GHGs, with \$25 million of those funds in state grants. The popular Energy STAR program is slated to receive \$55.5 million, an increase of \$3 million from FY 10 appropriations.

## **EPA Releases RFS2 Final Rule**

The Environmental Protection Agency (EPA) this week unveiled its final regulations for the National Renewable Fuel Standard Program for 2010 and Beyond (RFS2). This clean energy strategy is intended to jump start the nation's use of biofuels in hopes of fixing a government effort that officials admit has fallen short in its attempts to wean cars and trucks away from fossil fuels.

Under the Energy Independence and Security Act of 2007 (EISA), the EPA is responsible for revising and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The Renewable Fuel Standard program increases the required volumes of renewable fuel use in the US to 36 billion gallons by 2022.

This action also sets the 2010 RFS volume standard at 12.95 billion gallons. Further, for the first time, EPA is setting volume standards for specific categories of renewable fuels including cellulosic, biomass-based diesel, and total advanced renewable fuels. For 2010, the cellulosic standard is being set at 6.5 million gallons; biomass based diesel standard is being set at 1.15 billion gallons, (combining the 2009 and 2010 standards as proposed).

For the fuel pathways modeled, EPA has determined that soybased biodiesel, biodiesel made from waste grease, oils and fats, sugarcane based ethanol and corn based ethanol plants using new efficient technologies all meet or exceed the required lifecycle GHG reduction standards.

In order to qualify for these new volume categories, fuels must demonstrate that they meet certain minimum greenhouse gas reduction standards, based on a lifecycle assessment, in comparison to the petroleum fuels they displace.

EPA's GHG emission calculations were significantly improved in the RFS 2, as the agency corrected several flaws in its initial assumptions over international land use. As a result, biodiesel produced from domestic soybean oil is assumed to reduce GHG emissions by 57 percent compared to petroleum diesel fuel, and the EPA's uncertainty analysis recognizes that the GHG reduction could be as high as 85 percent. The rulemaking provides pathways for biodiesel produced from other vegetable oils to qualify for the program.

According to EPA's modeling, corn-based ethanol achieves a 21% greenhouse gas reduction compared to gasoline when international indirect land use change is included. Without the land use consideration, corn-based ethanol achieves a 52% GHG reduction. Cellulosic ethanol achieves GHG reduction of at least 72% depending on feedstock and processes. All GHG reductions for ethanol exceed those mandated by the RFS2.

For more detailed information on quality and volume standards, greenhouse gas reduction thresholds and more, click [here](#) to view the RFS 2 Fact Sheet and other links about the standards.

### **Based on New Study, Rendell Calls for Legislation to Increase Renewable Energy Use**

A new study released this week shows that using more clean forms of energy is the solution to both job creation and cost control. Governor Rendell and supporters of expanding the state's alternative energy portfolio immediately seized on the report to underscore calls for passage of HB 80.

The study by engineering and consulting firm Black and Veatch said increasing the renewable energy requirements of Pennsylvania's Alternative Energy Portfolio Standards Act could create the equivalent of 211,000 new jobs, or 130,000 more than if the state continued to rely on fossil fuels for that share of energy production.

In addition, Black and Veatch report that since there is "no cost associated with" the sun or the wind, Pennsylvania's energy consumers could save as much as \$4.6 billion by relying on those and other clean energy sources as opposed to the costs associated with purchasing coal or natural gas and maintaining the power plants that use those fuels. Of course, there are significant initial capital costs in construction of industrial, utility size and residential solar and wind generation facilities.

To realize the gains cited in the study, the Governor called on the General Assembly to improve the state's Alternative Energy Portfolio Standard—originally enacted in 2004—to be more competitive with those of other states. The law currently requires at least 18.5 percent of the retail electricity sold in the state to be generated by alternative and renewable resources by 2021.

Maryland and New Jersey have adopted renewable energy requirements of 20 percent by 2022 and 22.5 percent by 2021, respectively.

House Bill 80 and Senate Bill 92 would increase the AEPS law's clean energy requirements from 8 percent to 15 percent from 2021 through 2026 and would require 3 percent of electricity to come from solar photovoltaic panels by 2026.

The bills would also require that 3 percent of energy purchased by electric distribution companies must come from coal-fired power plants that use the latest technology to reduce emissions and can connect to carbon sequestration facilities.

### **Report: Co-Firing Biomass at Coal Power Plants Would Cut Greenhouse Gases by 5%**

If all coal-fired power plants in the United States and Canada were to instead burn biomass 10% of the time, electricity generated from biomass would represent about 4% of power generation and reduce greenhouse gas emissions by 170 million metric tons annually, according to a study published by the Journal of Environmental Science and Technology.

"Co-firing" coal and biomass, with wood pellets making up 10% of the fuel mix, would reduce greenhouse gas emissions from the power generation sector by 5% in the United States and Canada, but it would require about 100 million dry metric tons of biomass a year — "a large amount but within inventory amounts," according to the report, "Life Cycle Emissions and Cost of Producing Electricity from Coal, Natural Gas, and Wood Pellets in Ontario, Canada."

The study, published in the January issue of the Journal of Environmental Science and Technology, was primarily focused on the potential for biomass at the Nanticoke and Atikokan generating stations in Ontario. Ontario Power Generation Inc. has been looking into converting coal-fired units at both stations into biomass units as part of its plan to eliminate coal generation

by 2014. The study, conducted by researchers at the University of Toronto, was funded by Ontario Power Generation and the Natural Sciences and Engineering Research Council of Canada.

According to the article, coal is responsible for a fifth of global greenhouse gas emissions, but power generators have few cost-effective "near-term options" for cutting emissions from coal-fired units. While carbon capture and storage technologies, at least on the commercial scale, are still a decade away, co-firing biomass fuels, such as wood pellets, is one short-term solution with unique advantages for cutting pollution and meeting renewable portfolio standards, the report said.

Click [here](#) to view the report.

### **Clean Energy Week Underscores Need for Stable, Long-Term Energy Policy**

*By: 25x'25, America's  
Energy Future*

Nearly 100 national organizations, including 25x'25, have joined together to make this Clean Energy Week. By working together to produce a high-impact week of powerful and effective activities and events, the organizations are maximizing their efforts to move clean energy to the forefront of national policy. President Obama's State of the Union address last week underscored the need to put into place those long-term and stable policies and funding that accelerate the development of renewable energy and energy efficiency technologies. "The nation that leads the clean energy economy will be the nation that leads the global economy," Obama told Congress and the country last January 27th, sharing the 25x'25 conviction that clean energy solutions are essential components of job creation and economic growth.

Click [here](#) to read more

### **PUC: Rate Cap Removal, Alternative Energy Bill, Are Moves in Right Direction**

Public Utility Commission Chairman James Cawley this week told the House Appropriations Committee, that the state's transition process in removing rate caps was proceeding well, and pushed lawmakers to continue with alternative energy standards.

Many Pennsylvania electric customers are in areas where rate caps have been removed, and the remainder will see those caps disappear by the end of the year. While some lawmakers relayed complaints from their constituents about those increases, Cawley said it's a move in the right direction.

"The great benefit of electric competition is that all the risks of building and maintaining and operating the power plants is now on investors, and all those risks and inefficiencies are off the backs of customers," Cawley said. "I don't want to ever go back to a situation again where those costs are borne by customers."

He also encouraged legislators to approve a measure that would expand the Alternative Energy Portfolio Standards Act. The act, Cawley said, already has brought jobs to Pennsylvania "that otherwise would not have come," and could create the additional demand needed to expand alternative energy generation.

Cawley said that while alternative energy is still expensive compared to current typical sources, like coal, expanding solar, wind or other sources would give the state more options in the long term for providing energy and for attracting businesses.

### **EVENTS**

Click [here](#) to view a

*list of upcoming energy-related events.*

### [Pittsburgh Energy and Environment Week](#)

Of the 16 billion US dollars allocated to renewables and energy efficiency by the American Recovery and Reinvestment Act some 450 million dollars will be spent on projects in the Keystone State. Pennsylvania hosts the "Energy and Environment Week" (EEW), held on April 12 – 16, 2010 in Pittsburgh. EEW will bring together stakeholders from North American and Europe to talk business and new ventures.

EEW means five days of site tours, conference sessions, interactive workshops and exhibits. The focus is on energy and materials recovery from waste and biomass, the commercialization of hydrogen and fuel cells, and the potential of energy efficiency technologies for climate protection and cost cutting. One highlight of the event is the alternative fuel vehicle ride and drive. EEW co-locates with two established events, "Energy from Biomass and Waste" and "Hydrogen Expo", both of which have become leading industry gatherings. Organizer Freesen & Partner GmbH is a specialist in connecting people in growth markets.

More than 150 exhibitors and 2,000 delegates are expected to attend EEW 2010. Exhibiting companies can contribute to the conference program with a presentation on their technologies and projects.

### **NEWS CLIPS**

[Green-Industry Sector Expected to Generate 115,000 Jobs](#)

[DEP Urges Hybrid Vehicle Buyers to Apply for PA Rebate Before March 6](#)

[Pennsylvania Chamber of Business and Industry: Renewable energy, yes, mandates, no.](#)

[Covanta Completes Acquisition of Veolia's North American Waste Energy Business](#)

[Republic Services Transfers Ownership of Solar Landfill Cover System](#)

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