

The business, programs and policies of moving new energy products into the marketplace

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[News](#) reports on energy efficiency on a world scale, including sustainability at the Winter Olympics in Vancouver, the role of renewable energy in restoring Haiti's electrical system and big gains for wind power in China.

This month's [Features](#) section focuses on the ability of our nation's transmission system to deliver on renewable energy goals. From industry debate about state versus federal authority to site transmission lines to Department of Energy funding priorities and current transmission system upgrades, we present a sampling of issues related to interconnecting renewable energy into the grid.



Caleb Taylor, left, and Patricia Moreno hold up the Olympic torches. The Vancouver Winter Olympics aimed to set a new record of sustainability with efficient building standards, alternative transportation and sustainable products.

Photo courtesy of: VANOC/COVAN

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News

Energy transformation has new meaning in Haiti

Four days before the Jan. 12 earthquake struck Haiti, DOE's Energy Efficiency and Renewable Energy Office staff [announced projects](#) to bring sustainable energy market transformation to the Caribbean, [including a wind farm in Dominica](#). Now with Haiti in ruins, DOE has a broader focus for the area: Haiti's electrical reconstruction.

Immediately after the 7.0 magnitude quake, staff from DOE's Office of Electricity Delivery and Energy Reliability began working with an international team based in neighboring Dominican Republic to assess and restore Haiti's infrastructure. Representatives from DOE's Fossil Energy and Policy and International Affairs offices are also determining how DOE's existing resources might help stabilize and reconstruct this poor island nation.



Girls stand in the Zanmi Lasante Clinic in Haiti. The Solar Electric Light Fund and Partners in Health are bringing solar power to 10 health care centers worldwide, including Haiti.

Photo courtesy of: SELF

In 2009, the bank allocated \$5 million for the [Electricity Loss Reduction Project](#) to improve management of the country's utility, the Electricite' d 'Haiti, and help strengthen Haiti's Ministry of Public Works to oversee the energy sector.

Even before the quake, Haiti desperately needed an electric-system upgrade. According to Wikipedia, only 12.5 percent of the total population (or 45 percent of those in the capital, Port Au Prince) had regular access to power, which includes 270 megawatts of generation primarily from thermal (70 percent) and a hydroelectric dam (30 percent). In fact, according to the [Wall Street Journal](#), an estimated 30 percent of Haitians use their own generators because of a limited distribution network.

This lack of basic access to electricity caught the attention of the World Bank, which provides financial and technical assistance to developing countries around the world. In 2006 and again in

Renewable energy could play a pivotal role in the island nation's power transformation.

Solar panels have already been installed by non-profits for [orphanages](#) and [schools](#). The non-profit organizations [Solar Electric Light Fund](#) (SELF) ([video](#)) and [Partners In Health](#) ([video](#)) have also been collaborating since 2006 to bring solar power to health care centers in Rwanda, Lesotho, Burundi and most recently, Haiti.

Solar energy can serve as a foundation for a robust and sustainable healthcare infrastructure in Haiti, said SELF Executive Director Bob Freling, who says this is just the beginning of the organization's assistance to providing solar energy to Haiti. "This is part of an ongoing, solid commitment to providing solar to the country," commented Freling.

SELF, which is funded through foundations, corporations and renewable energy supporters, is planning to partner with organizations to "bring power to schools, lighting for homes, and for agricultural needs, such as solar drip irrigation systems needed to provide food and safe drinking water. In the long run, we hope to play a big role," said Freling.

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Sustaining the Olympic clean energy momentum

The Olympics have become a biennial opportunity to showcase sustainability in cities around the world. But once the Olympics are over, how well have communities sustained the momentum toward clean energy? It's a topic sure to generate discussion as the 2010 Winter Olympic wrap up their two-week run in Vancouver.

Post-Olympic sustainability is important to many in the clean energy arena since the environmental impact of building new roads and facilities, spectators traveling to the events and waste and water management during the games can easily offset the gains toward meeting sustainable goals.



The Olympic Village in Vancouver is a model of sustainable building.

Photo courtesy of VANOC/COVAN

At least that's the criticism heaped on prior Olympic games from the most recent 2008 summer [games in Beijing](#) to the 1994 winter games in [Lillehammer, Norway](#).

After the games in Lillehammer, the International Olympic Committee adopted a set of guidelines to emphasize environmental protection and sustainable development. In fact, [environmental stewardship became one](#) of the Olympics' three pillars—along with sports and culture—and [cities](#) bidding for the games had to market their green credentials.

Ian Smith, developer of [Vancouver's Olympic Village](#), was quoted in [Energy Priorities](#) as saying, "We believe the goal of urban sustainability for this site was a factor in Vancouver's selection as the 2010 Olympic host city."

[The Village's](#) 16 buildings are outfitted with solar panels, their roofs are designed to capture rainwater for landscaping and heating comes from methane gas captured from a

former landfill—all features that earned the builders the gold standard in energy efficient construction, according to the [Vancouver 2010 site](#).

[Vancouver's post-game plan](#) for its energy-efficient Olympic Village is to introduce the public to sustainable living. For example, the 900 or so residential, energy-efficient dwellings built for the Olympic Village will be sold at market rates, while another 250 units, which are in a building designed to ultimately reach net zero energy use, are slated for seniors and low-income families.

The city's Olympic Committee also plans to assess [total impacts from the games](#), including environmental, social and economic impacts. The city will also continue to post [sustainability reports](#) every few months. ([video](#))

[Summer 2012 Olympic organizers](#) in London will be taking careful notes, as the environmental trend in Olympic planning seems to be picking up speed. In the future, the biggest competitions of the games might not be among the athletes, but among the planners who determine how to leave a sustainable community legacy.

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Interior Department fast tracks renewable energy

U.S. Department of Interior (DOI) Secretary Ken Salazar, a Colorado rancher, is sticking to his guns in fast tracking [renewable energy development on public lands](#). Salazar told Congress in his [2011 budget request](#) that:

"America must move to a clean energy economy. We have already identified or set aside for potential solar energy development 1,000 square miles of public lands and we are also working to help find the right location for 5,000 miles of new transmission lines. We have also used Recovery Act funding to allocate over \$40 million for permits in 65 large-scale wind, solar and geothermal projects.

"This is just the beginning. The Bureau of Land Management (BLM) has already received more than 220 applications for utility-scale solar projects in six western states. Using four recently established Renewable Energy Coordination offices, BLM will be able to fast track these projects while also protecting natural resources on public lands."

Salazar also said, "The \$3 million increase for BLM's budget will be for site-specific environmental studies of potential [solar energy sites](#) in Nevada, and for regional studies of potential wind energy zones in Nevada and Oregon.



The Mojave Desert is within one of 24 solar energy zones where the Interior Department hopes to locate large-scale production of renewable energy.

Photo courtesy of [electrical resources.com](#)

"Additionally, we are asking for the U.S. Geological Survey to receive a \$3 million increase to analyze and document the effects of renewable energy development on wildlife populations. The Fish and Wildlife Service's funding request included a \$4 million increase to fulfill our endangered species consultation requirements for new projects.

"Our goal is to permit 9,000 megawatts of renewable power on public lands by the end of 2011. That is the equivalent amount of power generated from 25 mid-size coal fired power plants."

DOI is actively working with DOE, other

federal agencies and a large number of states to reach its aggressive goals in renewable energy development on public lands, including the nation's 1.7 billion acre Outer Continental Shelf.

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China doubles wind power capacity in one year

Somebody forgot to tell the Chinese there was a slowdown in renewable energy investment last year. [China doubled its installed wind power](#) generation capacity from 12 gigawatts (GW) to 25 GW in 2009.

The [Global Wind Energy Council](#) says China became the world's largest market for wind turbines last year. And moving forward, that isn't likely to slow down. The nation plans to expand its wind power generation capacity to 150 GW by 2020.



Chinese workers install a wind power turbine at a wind farm in Weifang city, in eastern China's Shandong province.

Photo by Imaginechina: AP

Worldwide, total wind power capacity increased 31 percent last year, reaching almost 158 GW. The U.S. currently ranks as the world's No. 1 user of wind power electricity with 35 GW of installed generation capacity, even though that represents only about two percent of our annual total electricity consumption.

The European Community, by comparison, gets about 9 percent of its electricity from wind power. Globally, the 2009 wind turbine installation market hit about \$63 billion, employing an estimated 500,000 people.

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Get cash rebates for buying energy-efficient appliances

You may be eligible for rebates to replace washing machines, dishwashers and heating and cooling units with energy-efficient models under the new ["Cash for Appliances" program](#).

The Department of Energy allowed each state and U.S. territory to design its own rebate program. Some states have already launched their programs and others have yet to get under way, with plans to offer rebates this spring. The \$300 million for the program comes from Recovery Act funds and was intended to encourage energy savings, appliance recycling and the purchase of appliances certified as energy efficient by the Environmental Protection Agency's [Energy Star](#) program.

Each state will specify exactly who is eligible to participate in its program and may offer different rebate amounts—anywhere from \$50 to \$250, depending upon the appliance purchased and price. Program participants must purchase Energy Star-qualified appliances, which could include:

- Boilers

- Central air conditioners
- Clothes washers
- Dishwashers
- Freezers
- Furnaces (oil and gas)
- Heat pumps (air source and geothermal)
- Refrigerators
- Room air conditioners
- Water heaters



An Energy Star-labeled refrigerator is one appliance eligible for rebates.

Photo courtesy of: NREL Pix

Just like with the “Cash for Clunkers” program, the Cash for Appliances program will end when funds for rebates run out.

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Features



Transmission towers at sunset are a common site across our nation's landscape as they support the conductors delivering electricity to homes and businesses. Increasing capacity on these transmission lines or building new lines are the keys to increasing renewable energy generation.

Photograph courtesy of: wikipedi commons

Groundbreaking grid planning effort launched

If increasing renewable energy generation is a major stepping stone to energy independence, another is planning how to interconnect the new generation within one of

[three power grids](#)—the Western Interconnection, Eastern Interconnection and the interconnection in Texas. While utilities and transmission operators continuously examine local and regional planning, six entities have begun analyzing transmission planning comprehensively across these three interconnected power grids for the first time ever.

Since Dec. 18 when DOE [announced \\$60 million in Recovery Act](#) funds to six separate entities for interconnection-level planning, these groups are beginning to examine future energy growth, increased renewable energy generation and [Smart Grid](#) technology development and their effects on the grid, including impacts to natural resources. Their analysis encompasses a transmission network of about 211,000 miles of high voltage transmission lines overseen by the [North American Electric Reliability Corporation](#) (NERC) —a network that delivers power to 334 million people within the United States, Canada and Mexico.



This map shows the areas of each U.S. power grid: The Western Interconnection, the Eastern Interconnection and the Texas Interconnection.

Artwork courtesy of: Energy Information Administration

Within each interconnection, new electricity supply sources and the transmission to deliver electricity to consumers requires careful coordination to maintain the grid's reliability while limiting costs and environmental impacts. The awards will fund transmission planners' work with stakeholder organizations within an interconnection to examine alternative electricity supply options and transmission requirements. They will also help state agencies or groups of agencies develop coordinated interconnection priorities and planning processes.

"As we move the country toward a clean energy future, it is critical that we analyze the capacity of the country's transmission infrastructure and plan for future growth in

this important industry," said DOE Secretary Steven Chu in announcing the additional transmission funding.

Because building transmission capacity requires considerably more time than to install wind plants, solar panels or geothermal projects—two years at minimum after permits are issued, according to DOE's [Electricity Transmission Primer](#)—there is a sense of urgency about studying transmission. Lack of adequate transmission capacity is already starting to limit wind growth in certain areas, said authors of the [Eastern Wind Integration and Transmission Study](#) (EWTS) conducted by DOE's National Renewable Energy Laboratory. The study, released Jan. 20, found that new transmission is key to achieving 20 percent of projected electrical demand in the Eastern Interconnection by 2024.

"Given that the nation's current transmission infrastructure is already constraining further development of wind generation in some regions, how could significantly larger amounts of wind energy be developed? The answers to these questions could hold the keys to determining how much of a role wind generation can play in the U.S. electrical energy supply mix," stated the executive summary of the EWTS.

The following organizations were selected for awards:

Eastern Interconnection

- [\\$16 million](#) to the [Eastern Interconnection Planning Collaborative](#), a pioneer, grass-roots effort led by 24 planning authorities from the United States and Canada
- \$14 million for the [Eastern Interconnection States' Planning Council](#) made up of public utility commissions, governors' offices, energy offices, and other key

government representatives in the 39 states of the Eastern Interconnection

Western Interconnection

- \$14.5 million for the [Western Electricity Coordinating Council](#), a regional reliability organization within NERC that encompasses 11 western states
- [\\$12 million](#) for the [Western Governors' Association](#), a group of governors from 19 western states, American Samoa, Guam and the Northern Mariana Islands

Texas Interconnection

- [\\$2.5 million](#) for the [Electric Reliability Council of Texas](#) (ERCOT), operator of one of the three interconnected power grids
- \$1 million for ERCOT for work with Texas government agencies

Secretary Chu is also coordinating interconnection-level planning with [Federal Energy Regulatory Commission](#) (FERC) Chairman Jon Wellinghoff. DOE will lead electricity-related research and development activities, including hardware and software technologies used to operate the grid. FERC will continue to oversee electricity reliability standards nationally and enforce regulations to ensure transmission planning is conducted in an open, transparent and non-discriminatory manner.

As a result of these planning efforts, each awardee will produce long-term resource and transmission planning studies in 2011, with updated documents in 2013.

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Modernizing the grid a priority in DOE budget

While proposed funding for grid modernization is a small percentage of the Department of Energy's (DOE) \$28.4 billion [budget request for fiscal year 2011](#), the grid is mentioned more than 54 four times in the 80-page document—an indicator that upgrades to infrastructure continue to be a priority.



This illustration shows how a Smart Grid can deliver energy more efficiently from its point of generation through transmission and distribution to homes and businesses.

Illustration courtesy of DOE

Grid modernization is a key initiative that supports the Secretary's strategic priority of providing clean, secure energy and promoting energy efficiency and domestic forms of energy. The Office of Electricity Delivery and Energy Reliability (OE)'s request for \$144 million for grid modernization calls for research and development by to improve reliability, efficiency, flexibility and security of electricity transmission and distribution networks.

That \$144 million request is a significant part of OE's total request of [\\$186 million](#), an increase of 8 percent over

2010. Specifically, grid modernization calls for accelerating the investment in energy storage capabilities and funding two new research initiatives: Advanced Modeling Grid Research on grid-modeling capabilities using the large volumes of data generated by advanced grid sensors; and Power Electronics, which is developing new power control devices in collaboration with universities. The request also continues to support cyber security systems for the power grid and the development of Smart Grid technologies, which will modernize our nation's approach to electricity delivery and communication.

OE also requests \$6.4 million for permitting, siting and analysis to assist states, regional entities and other federal agencies in developing policies and programs to modernize the grid.

Within the Energy Efficiency and Renewable Energy Office, the grid is also a focal point. EERE's total budget request of \$2.4 billion includes \$302.4 million for the Solar Energy program, including \$30.7 million for the Systems Integration area—a \$7.4 million increase over 2010. Systems Integration is modeling solar energy technology performance, analyzing the effect on the grid and developing new technologies that integrate with the [Smart Grid](#). The Wind Energy Program is also addressing the integration of wind into the grid in cooperation with OE.

In developing the 2011 budget request, the Secretary has also taken Recovery Act investments into account. [The budget request](#) states that by fiscal year end, DOE expects to obligate 100 percent and disperse roughly 35 to 40 percent of Recovery Act funds, such as \$4.5 billion for grid modernization, as well as \$16.8 billion for energy conservation and renewable energy sources, \$6 billion for environmental management and \$4 billion in loan guarantees for renewable energy and electric power transmission projects.

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Recovery Act funds high voltage line construction

History is in the making in the town of Great Falls, Mont., as construction workers test soil and conduct geological surveys for a 214-mile high-voltage transmission line stretching into Canada that's known as the Montana-Alberta Tie Line (MATL)—the latest of two [transmission line projects](#) to be built so far using Recovery Act funds. The first project to use these funds—the 79-mile [McNary-John Day transmission line](#)—began construction last July in northern Oregon.

MATL is projected to spur \$1 billion in wind farm development in the region planned by [three wind developers](#) that reserved capacity on the line.

NaturEner already announced plans to construct an \$800 million, 309-megawatt wind farm north of Highway 2 near Glacier and Toole Counties in Montana and plans to use the 300 megawatts (MW) of northbound capacity. The 300 MW of southbound transmission capacity along the Montana-Alberta Tie Line has been awarded to two other wind companies: Chicago-based Invenegy, which owns and operates the 135-MW Judith Gap wind farm, has claim to 180 megawatts of transmission capacity, and Texas-based Wind Hunter has been awarded 120 MW of capacity.



Bison stand near a 10 kW wind turbine in Montana. The MATL project is expected to spur \$1 billion in wind development in the region.

Photo courtesy of: Northwest Seed

Once energized, as early as spring 2011, the 230-kilovolt transmission project will be capable of delivering 300-600 MW of clean, renewable wind energy—enough to power 150,000 to 300,000 homes.

The line is being built thanks to a public-private partnership between [Tonbridge Power](#) and [Western Area Power Administration](#) (Western), a Department of Energy agency that is using up to \$161 million of its \$3.25 billion in borrowing authority under the Recovery

Act to help build the line. Total project costs are estimated to be about \$213 million.

MATL will connect the electrical grids of the United States at Great Falls and Canada at Lethbridge, Alberta. Almost two-thirds of the line will be located on U.S. soil, creating American jobs while allowing for the continued expansion of renewable energy production. Tonbridge estimates that constructing the line will create 150 jobs in southern Alberta and northern Montana.

While Tonbridge was the first to receive the federal funding for such a project, Western is negotiating with additional developers for transmission line funding.

The Recovery Act increased the amount of money that [Bonneville Power Administration](#) (BPA) can borrow from the U.S. Treasury to \$3.25 billion, which will facilitate the delivery of renewables. The [McNary-John Day project](#) that BPA is constructing includes a new 500-kilovolt line that will be located adjacent to an existing line.

The additional capacity from this new line will allow BPA to accommodate requests for additional transmission capacity for expected generation in southeast Washington and northeast Oregon. It will allow BPA to provide transmission service to more than 870 MW of energy, including service for more than 700 MW of new wind energy. Construction on this line is expected to be completed in 2012.

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Balancing competing needs in delivering renewables

Transmission upgrades must play a defining role in our nation's quest to meet renewable energy generation goals by 2020. But how and when those upgrades happen depends on balancing the competing needs of multiple entities—everything from government agencies and utilities to environmental groups and the public.

Energy independence, security and sustainability are the drivers behind federal renewable energy policies and laws, which, in turn, drive state renewable portfolio standards. Meeting those standards requires long-term planning for state agencies and utilities, which are guided not only by renewable energy goals but also by electricity reliability and budgets. Cost—or specifically, return on investment—drives potential investors in transmission line projects while property values, safety, land use, ecosystem impacts and project beneficiaries drive the public's involvement, as well as environmental groups.



The sun reflects off of solar collectors. The quest to harness more sunlight for energy generation will depend on successful stakeholder collaboration.

Photo courtesy of: [inhabitant.com](#)

So how do you balance all these needs, which often conflict? It all boils down to collaboration and compromise and presenting realistic alternatives. Those are the conclusions drawn by the University of Texas Center for Energy Economics (CEE) and a stakeholder consultant called the Terra Group (TG) in a report entitled "[Electric Transmission and Carbon Reduction](#)," which was released Jan. 23.

In surveying state and federal regulators and industry representatives from March to December 2009, the [report's authors found](#) that state regulators remain adamantly opposed to greater federal transmission routing and siting authority while major environmental groups want a national

energy policy that achieves the greatest carbon reduction at the lowest cost in the shortest time, primarily through renewables, increased energy efficiency, optimization of existing infrastructure and distributed generation. They are likely to support new transmission that reinforces this policy, the report concludes.

CEE and TG surmise that opposition will never disappear, but suggest that “a transmission siting process that forges consensus around realistic alternatives can overcome much potential opposition. Properly designed, it will help to close the yawning gap between society’s broader environmental goals (such as carbon reduction) and local land use decisions that will be needed to attain them.”

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Hearing reveals diverse perspectives on transmission

The divergence of views about transmission line upgrades was never more apparent than during the “Future of the Electrical Grid: Proposals for Reforming National Transmission Policy” [hearing](#) held June 12, 2009 by the [House Energy and Environment Subcommittee](#).

Here is a [sampling of viewpoints](#) among congressional representatives and industry representatives attending the hearing:

Rep. Edward Markey, D-Mass.: “Transmission is amongst the most complex and controversial aspects of energy policy. Today's hearing is literally the first hearing in this committee, in this Congress or the last Congress, on transmission...We cannot afford to take a ready- fire-aim approach in this area...The testimony before us confirms that it is very tough to find agreement in this area.”

Rep. Fred Upton, R-Mich: “...transmission lines cannot distinguish between the green electrons or the brown ones. So we just can't be planning a transmission system for renewables. We have to take all sources into account: wind, solar, nuclear, hydro, coal, clean coal, everything else. Changes need to be made to the current regulatory system. FERC can provide a backstop, but we must not completely abandon the state and local process.”

Rep. Jay Inslee, D-Wash.: “...while all of our constituents love electricity, virtually none of them love electrical lines. There is a time and a place where Uncle Sam needs to step in to overcome at times the reluctance of all of us to bear with some of the onerous aspects of moving electricity. It is simply necessary, and we know we cannot wait decades to move these electrons.”

Rep. Joseph Pitts, R-Penn.: “We need to ensure that all stakeholders are included in deciding where and when transmission lines are sighted...it is critical to strike a delicate balance between the crucial electricity needs of the country, while at the same time maintaining the historic open space areas that make our country beautiful and unique.”

Jon Wellinghoff, Federal Energy Regulatory Commission: “...I have people coming into my office who tell me that wind is being curtailed in the Midwest because we don't have adequate transmission...It's not simply creating these new markets for renewables, it's the need to somehow ensure that this transmission gets built to make it deliverable...Congress needs to look at an entire structure of planning, siting and cost allocation that is initially deferred to the states, and I would say that the states should, in fact, ultimately solve that problem. But if they can't, then the pressure should be

there to allow the federal government to step in if necessary."

Rich Halvey, Western Governors Association: "The Western Governors support the development of interconnection-wide transmission plans. However...the Western Governors see little benefit in FERC preempting state transmission line permitting processes. The major hurdle for permitting transmission in the West has been securing permits from federal agencies. The implementation of federal law has resulted in lengthy and inflexible federal permitting processes. Enabling FERC to preempt state siting processes will not fix the underlying problem."

Joe Nipper, American Public Power Association: "In our view, the single most significant impediment to getting new transmission built continues to be siting, and we urge Congress to clarify and continue to support the federal backstop siting authority included in EPAct '05 (the Energy Policy Act of 2005).

Glenn English, National Rural Electric Cooperative Association: "... it's been our experience that bottom-up planning works the best. So you need local, regional planning. You need local folks putting this plan together to determine what's the best way to move forward on this. So that is a principle that I think we need to adhere to -- a bottom-up rather than top-down as far as planning the transmission system of this country."

Reid Detchon, Energy Future Coalition: "An enhanced regional planning process of this kind should build on, not replace, the current engagement of stakeholders, including states, grid operators, utilities, consumer and environmental interests and land-owner groups. This will remain a state, not a federal process. Siting authority would rest with FERC, but the states collectively would have more power, not less, than they do now because their plans would govern the exercise of that federal authority. Only if the planning process breaks down would FERC have the ability to resolve disputes and get transmission built to bring renewable energy to market."

Joseph Welch, ITC Holding: "I always tell people, being in the transmission business—it's a great business until I do one of two things, and the first item is build through transmission lines. The minute we start to build them, it becomes a nightmare. And the process is hard, and it's long. And what we need is true federal backstop siting authority. That is not meant to cut the states out of the process; the states should be involved in the process. They are the most knowledgeable about local issues.

"But at the end of the day, we have to get a regional transmission grid built...there are literally thousands upon thousands of megawatts of renewable energy that this country needs to deploy, and we need to deploy it now. And if we start now, we are years and years away from our goal line."

Christopher Miller, Piedmont Environmental Council: "To the extent that transmission is necessary—and obviously, connecting some renewables will require transmission—it's very important to respect the other public policy values that are out there, particularly related to the lands that have to be crossed by transmission. We should be seeking to avoid, wherever possible, the natural resources, the historic resources, the cultural resources and, yes, even the landscapes that America values so much."

It's a debate that's bound to intensify if the House and Senate energy bills move forward this year.



U.S. DEPARTMENT OF **ENERGY**

News Releases

Feb. 23, 2010

[Department of Energy Announces Technology Transfer Coordinator](#)

Feb. 22, 2010

[DOE Announces Nearly \\$1.4 billion in Conditional Loan Guarantees for BrightSource Energy](#)

Feb. 19, 2010

[Secretary Chu Announces Over \\$8 Million to Support Local Energy Assurance Planning Initiatives](#)

Feb. 12, 2010

[Obama administration launches \\$130 million building energy efficiency effort](#)

Feb. 3, 2010

[Obama announces steps to boost biofuels, clean coal](#)

Feb. 2, 2010

[EPA and DOE join states to speed energy efficiency progress in the United States](#)

Feb. 1, 2010

[President's energy budget invests in innovation, clean energy, and national security priorities](#)

Jan. 28, 2010

[Secretary Chu announces closing of \\$1.4 billion loan to Nissan](#)

Jan. 21, 2010

[Secretary Chu announces more than \\$20.5 million for community renewable energy deployment projects](#)

Jan. 21, 2010

[Secretary Chu announces closing of \\$465 million loan to Tesla Motors](#)

Jan. 20, 2010

[Department of Energy to invest up to \\$12 million to support early stage solar technologies](#)

Jan. 19, 2010

[U.S. District Court upholds DOE's action against LG to enforce ENERGY STAR requirements](#)

Jan. 15, 2010

[Secretary Chu announces more than \\$37 million for next generation lighting](#)

Jan. 14, 2010

[Secretary Chu announces 69 early career scientists to receive up to \\$85 million in funding to support research](#)

Jan. 13, 2010

[Secretary Chu announces nearly \\$80 million investment for advanced biofuels research and fueling infrastructure](#)

Jan. 12, 2010

[DOE steps lead to significant increase in compliance with energy efficiency reporting requirements](#)

Jan. 8, 2010

[President Obama awards \\$2.3 billion for new clean-tech manufacturing jobs](#)

Jan. 8, 2010

[DOE announces clean energy projects for low-carbon communities of the Americas initiative](#)

Jan. 7, 2010

[DOE announces additional energy efficiency enforcement action to protect consumers](#)

Jan. 7, 2010

[Department of Energy announces inaugural ARPA-E energy innovation summit](#)

Jan. 6, 2010

[Secretary Chu announces \\$47 million to improve efficiency in information technology and communications sectors](#)

Dec. 22, 2009

[Department of Energy to invest \\$366 million in energy innovation hubs](#)

Dec. 18, 2009

[Secretary Chu announces efforts to strengthen U.S. electric transmission networks](#)

Dec. 9, 2009

[DOE announces tougher enforcement of appliance standards reporting requirements](#)

Dec. 7, 2009

[Secretary Chu announces \\$100 million for advanced research projects](#)

Dec. 4, 2009

[Secretaries Chu and Vilsack announce more than \\$600 million investment in advanced biorefinery projects](#)

Dec. 2, 2009

[DOE Launches Save Energy Now LEADER Program](#)

Nov. 24, 2009

[Secretary Chu announces \\$620 million for smart grid demonstration and energy storage](#)

Nov. 23, 2009

[DOE to invest \\$18 million in small business clean energy innovation projects](#)

Nov. 23, 2009

[Secretary Chu announces \\$45 million to support next generation of wind turbine designs](#)

Nov. 18, 2009

[Department of Energy announces more than \\$104 million for national laboratory facilities](#)

Nov. 18, 2009

[DOE and USDA select projects for more than \\$24 million in biomass research and development grants](#)

Nov. 17, 2009

[Obama administration announces nearly \\$40 million for energy efficiency and conservation projects in Florida and Maine](#)

Nov. 5, 2009

[Secretary Chu highlights support for clean energy and energy efficiency projects in Indian Country](#)

Nov. 4, 2009

[Hydropower upgrades to yield added generation at average costs less than 4 cents per](#)

[kWh - without new dams](#)

Nov. 3, 2009

[Secretary Chu announces more than \\$155 million for industrial energy efficiency projects](#)

Nov. 3, 2009

[Obama Administration announces more than \\$38 million for energy efficiency and conservation projects in Alaska, Kansas, Utah and West Virginia](#)

Nov. 2, 2009

[DOE awards up to \\$5.5 million for X PRIZE to promote clean, energy efficient vehicles](#)

Oct. 29, 2009

[Department of Energy awards \\$338 million to accelerate domestic geothermal energy](#)

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Reader Comments

January

Colleges learning to promote sustainable energy

"I am a RIF (reduction in force) employee from Laramie County Community College. My position and the local Green Building Program were eliminated due to budget cuts. My program previously implemented energy efficiency in every student-built home. We used photovoltaics, solar thermal, passive solar, heat sinks, daylighting, as well as other building science strategies. At a cost of 30 percent higher than conventional built homes, administrators were concerned that the Construction Tech program was too expensive."

— T.N.

Editors note: The opinions and conditions stated in this comment are those of the reader only.

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Speeches, Op-Eds and Testimony

Dec. 10, 2009

[Elliott Mainzer, Executive Vice President of Corporate Strategy, Bonneville Power Administration, before the Senate Energy and Natural Resources Committee](#)

Subject: The role of grid-scale energy storage in meeting our energy and climate goals.

Dec. 8, 2009

[Kristina Johnson, Under Secretary of Energy, before the Senate Energy and Natural Resources Committee](#)

Subject: Consideration of draft Energy Technology and Efficiency Legislation

Dec. 3, 2009

[Jacques Beaudry-Losique, Deputy Assistant Secretary, Office of Energy Efficiency and Renewable Energy, before the House Science and Technology Subcommittee on Energy and Environment](#)

Subject: Marine and Hydrokinetic Energy Technology: Finding the Path to Commercialization

Comments:

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Events

If you have an event scheduled of regional or national interest to the energy efficiency and renewable energy communities, please contact us with pertinent information and a Web link and we will include it in EERE Program News. — [Jack Jenkins](#) or [Carolyn Hinkley](#)

[Federal Energy Management Program \(FEMP\)](#) — holds technical workshops around the nation throughout the year, plus webinars; check this link for continuously updated information on these events.

[Industrial Technologies Program](#) — holds specialized workshops and on-line webinars year-around. Check this link for a continuously updated schedule.

[EnergyBiz Leadership Forum](#) — Feb. 28, Washington, D.C.

Forum will sift through fallout of the economic downturn, examine what's happening with Recovery Act funding and hold a frank discussion on where we need to be headed in developing a new energy economy.

[Better Buildings: Better Business Conference](#) — March 3-5, Wisconsin Dells, Wis.

Learn how to build homes that deliver the energy savings customers want, about renewable energy technologies that reduce energy costs and how energy efficiency and green building practices keep businesses competitive.

[Building Energy 2010](#) — March 9-11, Boston, Mass.

The Northeast Sustainable Energy Association's annual conference will bring together professionals who help shape the practice of sustainability. Nearly 200 presenters will define the leading edge of smart building, energy efficiency and renewable energy.

[DOE Building Technologies Program Webinar](#) — March 18

Three experts from the Department of Energy and DOE's National Renewable Energy Laboratory (NREL) and Haselden Construction will highlight aspects of designing and building the Research Support Facilities on NREL's campus. The goal is to achieve a net zero office space through a unique design/build process.

[Biomass 2010](#) — March 30-31, Arlington, Va.

Biomass 2010 is sponsored by DOE's Biomass Program and follows the success of Biomass 2009, which brought together more than 600 participants from government, industry, academia, and private and nonprofit organizations. It provides an opportunity for dialogue about applied R&D, feedstocks, hydrocarbon fuels, and sustainability.

[2010 IEEE PES Transmission and Distribution Conference](#) — April 19-22, New Orleans, La.

The conference and exposition will bring together the world's leading power system equipment manufacturers and technical professionals to display their products, explore new technology and enhance existing technologies.

[ACI Home Performance Conference 2010](#) — April 19-23, Austin, Texas

Affordable Comfort Inc.'s 2010 conference will present a variety of information and training sessions related to home energy efficiency, safety and comfort.

[Solar Leadership Summit](#) — April 21-22, San Ramon, Calif.

Meeting is designed to be interactive, bringing together hundreds of solar energy experts from across many disciplines of the industry for an open exchange of ideas.

[National Green Builders Products Expo](#) — April 27-28, Las Vegas, Nev.

The National Green Builders Products Expo is a trade-to-trade only event.

[National Hydrogen Association Conference & Expo](#) — May 3-6, Long Beach, Calif.

The NHA Conference and Expo is the largest hydrogen conference in the United States and the longest running annual hydrogen conference in the world.

[5th annual Photovoltaics Summit](#) — May 3-5, San Diego, Calif.

Participants will address latest issues and current progress and offer viable ways to move forward in the photovoltaics industry.

[2nd Annual Concentrating Solar Thermal Power Conference](#) — May 5-7, San Diego, Calif. Conference will feature 18 expert presentations assessing market trends, technical development and application related advances. Question-and-answer sessions and panel discussions will be included.

[National Green Building Conference](#) — May 16-18, Raleigh, N.C. Sponsored by the National Association of Home Builders, conference will feature a variety of speakers and companies involved in green building technologies and sustainable living.

[SOLAR 2010](#) — May 17-18, Las Vegas, Nev. One of America's leading conferences on emerging trends, technology and opportunities that shape the new energy economy.

[Utility Solar Conference](#) — May 18-19, Denver, Colo. Conference open only to utility company employees interested in exploring and developing a viable long-term solar strategy of benefit to the utility, its customers, and its shareholders. It will allow sharing information and ideas about the details of various strategies and business models.

[12th Annual SolWest Renewable Energy Fair](#) — May 23-25, John Day, Ore. More than 50 free workshops on renewable energy and sustainable living topics. In-depth pre-fair workshops will cover renewable energy technology and natural building.

[Pacific Coast Building Conference](#) — June 9-11, San Francisco, Calif. The show is designed to revolutionize the concept of tradeshow by breaking down the walls between learning, exploring, practicing and doing. Exhibit floor seminars will help transform exhibitors from sellers to educators, making interaction with key decision makers more meaningful.

[AIA National Convention and Design Expo](#) — June 10-12, Miami, Fla. Among other speakers and displays, the American Institute of Architects convention will feature DOE and National Renewable Energy Laboratory building technologies experts, who will host a two-hour workshop on OpenStudio and EnergyPlus.

[13th Annual Nanotech 2010](#) — June 21-25, Anaheim, Calif. The world's largest nanotechnology event, NSTI Nanotech 2010, delivers application-focused research from the top international academic, government and private industry labs.

[ASHRAE Summer Meeting](#) — June 26-27, Albuquerque, N.M. Attend the American Society of Heating, Refrigerating and Air-Conditioning Engineers' summer meeting to learn about high performance buildings, efficient heating and cooling systems and emerging energy efficiency building codes.

[GovEnergy 2010](#) — Aug. 15-18, Dallas, Texas GovEnergy 2010 will provide effective energy management training to federal employees and their associated stakeholders, encouraging application of best practices, products, and services within the federal sector.

[2010 IEEE Conference: Efficient and Reliable Electricity Supply](#) — Sept. 27-28, Waltham, Mass. Conference will provide a forum to discuss new technologies and innovative applications of current technologies for generation, transmission, storage, monitoring, and demand management.

[2010 Excellence in Building Conference and Expo](#) — Oct. 12-14, Portland, Ore. The conference will feature timely, relevant resources and education about energy efficient houses that work.

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