



EESI

EESI UPDATE

A periodic update to friends of the Environmental and Energy Study Institute on our work in policymaker education, coalition building, and policy development.

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Achieving the Promise of Paris on Climate

THE WORLD IS LOOKING TO PARIS. The terrible terrorist attacks in November caught the world's attention, but the City of Lights may shine brighter than ever this December, when 195 countries will—we hope—reach a decisive climate agreement.

The climate talks are already a success. To date, 175 countries, representing 94 percent of the world's population and 93 percent of its greenhouse gas emissions, have submitted climate action plans (known as Intended Nationally Determined Contributions, or INDCs in U.N. jargon). Countries were asked to submit these plans in advance of the climate change conference in Paris, a smart move that has helped push the negotiations forward.



French President François Hollande Greets President Obama at the Paris Conference.

Photo: U.N. Framework Convention on Climate Change

In anticipation of the negotiations, 197 countries agreed in November to phase out hydrofluorocarbons (HFCs), which unfortunately have up to 12,000 times the global warming effect of comparable amounts of carbon dioxide. Eliminating HFCs can be a quick, relatively easy way to reduce our greenhouse gas emissions. EESI has long highlighted the benefits of tackling such potent, short-lived climate pollutants.

Critically, China, the world's largest emitter of greenhouse gases, has made clear it is taking action on climate change and wants a global deal. In an agreement with the United States this year, China pledged that its emissions of greenhouse gases will peak in 2030, at the latest. You can learn more about China's climate actions from our July briefing (our most popular briefing of 2015!) and from the op-ed on China I wrote for *The Hill*.

Cities and companies have also stepped up to the plate. As of Thanksgiving, 2,255 cities and 2,025 companies have publicly committed to cutting their carbon emissions.

But a deal in Paris will not solve the climate issue on its own. It is unlikely an agreement will result in binding national climate plans, in part because ratifying such a treaty would be difficult. And taken together, the fully implemented national climate plans would not be enough to limit warming to 2 degrees Celsius (3.6 degrees Fahrenheit), a level that countries have agreed should not be exceeded because the impacts would likely be severe. Even so, the talks in Paris are a critical stepping stone on the road to a carbon-free world.

In truth, the success of these negotiations will be judged at the country, city, and company levels, where the climate pledges will be implemented. That is why EESI is focused on making the Clean Power Plan a success. The Clean Power Plan is a key component of the U.S. government's climate action plan. Because it has been designed to give states as much flexibility as possible, it can drive positive change in many different ways.

The Clean Power Plan permeates much of our work, and especially our on-bill financing (OBF) program, which helps families reduce their energy usage, cut energy bills, and improve home comfort—all with no upfront costs (learn more at www.eesi.org/obf). Our partnerships with utilities in Michigan and Iowa have led to OBF programs, and opportunities in New Mexico, Minnesota, and Missouri are looking very promising. The White House also sees on-bill financing as a key, low-cost way for states to fulfill the Clean Power Plan's goals and help families struggling with high electricity bills, and has approached EESI to help make its rural energy efficiency loan program friendlier to potential borrowers.

But tackling gasoline emissions is also critical. Our work in the transportation sector is helping to advance clean, low-carbon, high-octane fuels to reduce greenhouse gas emissions as well as the harmful health impacts of toxic aromatics in gasoline.

You are so important in helping to achieve the promise of Paris. Key will be the efforts of all of us to ensure a sense of unstoppable momentum. I hope you will consider contributing to EESI as part of your tax-deductible, end-of-year giving. Thank you again for all you do for clean, sustainable energy. Happy holidays! □

RECENT EESI PUBLICATIONS

- [Jobs in Renewable Energy and Energy Efficiency \(2015\)](#)
- [Fuel Cells](#)

These publications can be found at: www.eesi.org/pubs

Case Warner

Executive Director, EESI

BRIEFINGS

DECEMBER

- Fuel Quality Matters: Building Cleaner Cars
- How Can New Transatlantic Collaboration Overcome Barriers to Renewable Energy Goals?

NOVEMBER



- Farming & Water Quality: Conservation Policies Working to Reduce Nutrient Loss

OCTOBER

- The PREPARE Act for Extreme Weather: Saving Lives and Taxpayer Money
- Webinar—On-Bill Financing: An Energy Efficiency Solution for Iowa's Communities

SEPTEMBER

- How Are States Planning to Comply with the Clean Power Plan?
- Offshore Wind: Can the U.S. Catch Up with Europe?
- Urban Climate Adaptation: A Discussion with Head of International Adaptation Network

Materials and videos from our briefings are available at www.eesi.org/briefings

DC: New Energy Efficient, Low Income Housing



Photo credit: Khtalid-Najji-Allah

DC Mayor Muriel Bowser (in red) opens Weinberg Commons alongside EESI Board Chair Jared Blum (second from left).

WHEN IT FIRST STARTED WORKING on the Weinberg Commons project in November 2014, the Transitional Housing Corporation (THC), a faith-based nonprofit, sought to refurbish three blighted buildings in Southeast DC into affordable housing for low income families. THC knew that, over the long run, energy-efficient homes are much more affordable for their occupants than conventional ones.

Indeed, Jared Blum, president of the Polyisocyanurate Insulation Manufacturers Association (PIMA) and EESI's board chair, noted, "Because utility costs can be some of the largest expenses faced by a family, passive house design allows people to better budget their money for other things." PIMA donated insulation to the project.

With the help of ZAVOS Architecture + Design, THC decided to transform the derelict structures to stringent "passive building" standards and principles. Buildings designed or renovated to "passive building" standards are equipped with first-rate insulation, triple-paned windows, and energy-recovery ventilators that ensure a constant supply of clean air with minimal energy usage. In the case of Weinberg Commons, the buildings are also equipped with solar panels, which are expected to cover all of their electricity needs.

"The goal of passive building design is to control the indoor environment, the key to achieving deep energy savings, comfort, healthful air quality, and other aspects of sustainable, affordable housing," noted EESI's Ellen Vaughan. "Passive building standards are very exacting—not rocket science but the best of building science plus modern materials and technologies. Bringing this to affordable housing is one of the best uses of public-private partnerships and resources. It's a win for people, the planet, and the economy."

For more information please see the full article at bit.ly/EESI-weinberg-commons. □

EESI Board Member Champions Hydropower

LINDA CHURCH CIOCCI became the Executive Director of the National Hydropower Association in 1991, but her interest in sustainability started many years before. Born to a socially-conscious family in upstate New York, Church Ciocci was taught to be mindful of the environment at a very young age.



Church Ciocci describes her involvement in environmental issues as evolving over time: "I don't think there was a point where it hit me." Nevertheless, she knew she would dedicate her career to protecting the environment.

Church Ciocci starting engaging with environmental and energy issues when she joined the advocacy department of the National Association of Counties in 1975. In 1989, she dived headlong into the world of energy when she joined the American Public Power

Association. During her time there, Church Ciocci was invited to speak at a National Hydropower Association conference. It was then that she fell in love with the industry's mission and the dedication of those advocating for clean, renewable energy.

Hydropower is America's largest source of clean electricity, accounting for 52 percent of all renewable electricity generation in the United States, and 7 percent of the grand total.

After 24 years working in hydropower, Church Ciocci is more convinced than ever of the importance of clean energy in moving the nation forward: "Climate is a real concern for all. The more clean energy we have, the better off we all are in terms of reducing greenhouse gas emissions." She joined EESI's board in 2013 because "EESI is all about moving forward with clean energy, and hydropower is an important part of that agenda." EESI is fortunate to be able to draw on her passion and experience. □

You Can Help Our Country Transition to Sustainable Energy!



AS OUR COUNTRY continues to implement its climate action plan and as the Paris talks go forward, keeping up the momentum is crucial. You are key to helping make that possible! EESI receives no Congressional appropriations, but depends on you and others like you to help make this work possible. If you are reading this,

you clearly care about energy efficiency and renewable energy, and you want win-win, sustainable solutions.

You can help our country transition to sustainable energy when you make a 2015 tax-deductible gift to EESI in the way that's right for you:

- **Online.** Make an online donation at www.eesi.org/donate—make it easier on your budget by making it a **monthly recurring gift** and support sustainable energy all year long.
- **By Mail.** Mail your gift in the enclosed envelope. EESI, 1112 16th St, NW, Suite 300, Washington D.C. 20036
- **Double Your Impact with an Employer Match.** Ask your workplace if they match employee contributions.

- **Become an EESI Associate—or Renew Today.** EESI Associates are businesses, associations, family foundations, and individuals who are an important part of the EESI family. A gift of \$1,000, \$2,000, or more will make you an EESI Associate. EESI Associates show their commitment with general support, allowing EESI to put resources in the areas of greatest need—and of greatest opportunity.

- **At Work.** If your employer has a workplace giving program, you can donate through easy, paycheck-based deductions. Federal employees and members of the military can give to EESI by designating **CFC #10627**. Many other employers offer workplace giving. Ask your HR department!



- **Make a Gift of Stock.** You may be eligible for a tax deduction equal to the fair market value of appreciated stock donated to EESI—a win-win. Contact 202-662-1887 for our brokerage information.

Thank you for putting your commitment to sustainable energy to work in so many ways – including by giving to EESI! □

Going with the Wind – Offshore Wind's Remarkable Potential



DID YOU KNOW that the wind blows more powerfully and steadily offshore than over land? This enables offshore wind farms to generate a greater amount of consistent electricity than land-based wind farms. And offshore wind farms can be located near major pop-

ulation centers along the coasts, but without using up valuable real estate. Despite the clear benefits of offshore wind, there are currently no operational offshore wind farms in U.S. waters. Europe, by contrast, has been generating power from offshore wind farms since 1991 and now has an offshore wind capacity of 10 gigawatts (GW), the equivalent of five Hoover Dams.

But things are changing fast. In October, EESI held a well-received briefing, *Offshore Wind: Can the U.S. Catch Up with Europe?* It examined offshore wind developments in U.S. waters – and showcased Europe's great success with the technology. Deepwater Wind CEO Jeff Grybowski explained that the first U.S. offshore wind project is expected to come online in summer 2016 at Block Island, 12 miles off the coast of Rhode Island. The project will generate 50 megawatts (MW) of power, enough to power 17,000 homes. The Project Development Director for

U.S. Wind, Paul Rich, added that his company is working on a much larger project off the coast of Maryland, where it plans to have 500 MW of offshore wind operating by 2020.

EESI's briefing was timely, as Members of Congress are seeking to catalyze the young U.S. offshore wind industry. Sen. Tom Carper (D-DE) and Sen. Susan Collins (R-ME) reintroduced the *Incentivizing Offshore Wind Power Act* this past July, to provide a 30-percent investment tax credit for the first 3,000 MW of offshore wind put online. Such an incentive would help the United States realize some of offshore wind's potential, which the National Renewable Energy Laboratory estimates is more than 4,000 GW, enough to meet all U.S. electricity needs four times over.

Officials from the British and German Embassies explained that offshore wind is a far more mature power source in Europe. The United Kingdom is the global market leader in offshore wind: 5.1 GW have been installed or are currently under construction. Germany, the number two offshore wind power in Europe, is catching up fast. It installed 1.7 GW of offshore wind in 2015, more than three times the capacity installed in Britain that same year.

EESI's briefing resulted in a *Scientific American* article, and provided insights for a subsequent fact sheet on offshore wind. □

Farmers Show Voluntary Actions Can Improve Water Quality

FAMILY FARM OWNER Leon Corzine discussed voluntary conservation practices on his soy, corn, and Angus cow farm in Illinois at an EESI briefing in November. Sustainability is a family matter for him: he wants his farm to thrive for generations to come. Sustainability is also a critical issue for the nation. Jonathan Coppess of the University of Illinois, another speaker at EESI's briefing, listed several major water quality challenges in the United States that result from excessive agricultural runoff, including the 6,474 square-mile "dead zone" in the Gulf of Mexico.

EESI held the November briefing to show that farmers like Corzine are taking strong, voluntary actions throughout the country to reduce nutrient runoff and help preserve water quality. They are environmentally-minded but also have a strong economic incentive to keep nutrients in their fields—where they boost yields—rather than let them contaminate the water supply. At the same time, there is still a very long way to go to ensure the widespread implementation and success of these practices.

EESI's expert speakers explained that a wide range of approaches can reduce runoff, including cover crops, wetlands, buffers, and bioreactors (such as wood chip-filled trenches that convert nitrates into nitrogen gas). Some approaches result in multiple benefits: increasing a soil's health, for instance, makes it better able to hold water (reducing runoff and erosion), and builds carbon reserves into the soil to make it more productive.

Ohio Farm Bureau Vice President Adam Sharp noted that his organization promotes many of these conservation practices. He himself practices what he preaches. This year, for the first time, he has cover crops for all of his crops, to reduce nitrogen leaching, help suppress weeds, and limit soil erosion. But he notes that doing so is not easy: it's costly, time-consuming, and takes a lot of work.

Strong federal policy can help channel and organize such voluntary actions. One such policy is the new Regional Conservation Partnership Program (RCPP), created by the 2014 Farm Bill. RCPP encourages partnerships between agricultural producers and stakeholders to address regional problems while maintaining or improving agricultural productivity. Federal programs like RCPP that encourage and incentivize voluntary action are important but little understood. EESI's briefing helped shed light on this, and we will continue to explore these issues. Learn more about farming, water quality, and Farm Bill conservation programs at www.eesi.org/110215water. □

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