

Massachusetts Should Diversify Its Energy Mix, Speakers Say

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BOSTON - Diverse fuel sources and distributed generation were two hot topics during the first panel of the 2013 Massachusetts Sustainable Economy Conference. The conference was held on Sept. 25 at the Massachusetts State House.

One of the best ways to build resilience to endure climate change and natural disasters is to diversify our energy supply, said Alicia Barton, CEO of the Massachusetts Clean Energy Center.

“I’m an advocate of an all-of-the-above energy strategy,” said Howard Herzog, senior research engineer at the MIT Energy Initiative’s Carbon Capture and Sequestration Technologies Program.

Carbon capture and sequestration is a technology for removing greenhouse gases from coal plants. In response to a question about the safety of this technology, Herzog said “every major demonstration has been safe.”

Herzog expressed concern about the cost of Massachusetts’ current energy choices. “What I see is a system losing fuel diversity and becoming too dependent on natural gas.” Natural gas prices are volatile, he said. He also said setting very high goals for renewable energy would be expensive.

For economic and political reasons, Herzog’s “all-of-the-above” menu of options does not include nuclear power at this time. “I don’t see much nuclear happening in the United States in the next 10 years. Today, nuclear’s not a viable option.”

“Solar has been a huge success story,” Barton said. “We met that goal four years early. We’re really driving toward a new regime of distributed generation.”

With distributed generation, local renewable energy equipment provides a backup power source that can be used in case the electric grid or nearby power plants fail. During natural disasters or blackouts, distributed generation can be valuable.

Barton said the Massachusetts Clean Energy Center is also collaborating with innovators who are developing technology to support the electric grid. “We have funded a study to look at district energy and microgrid technologies.”

District energy technologies provide heating, cooling, and/or electricity for buildings which are connected to each other. Microgrids integrate small-scale distributed generation resources into electricity systems.

The electric grid and power plant system itself is vulnerable to climate change, said Michael Jacobs, senior energy analyst at the Union of Concerned Scientists’ Climate &

Energy Program. He described the effects of warming water and sea level rise on power plants' cooling systems.

When old power plants are taken out of commission, renewable resources and other power sources can step into their place.

One of these resources is offshore wind, which Barton said is a priority of the Massachusetts Clean Energy Center. She is supportive of Cape Wind and said she hopes the project will be built soon.

The conference was organized by Integrative Sustainability & Environmental Solutions in partnership with the Commonwealth of Massachusetts House Committee on Global Warming and Climate Change.