



Conference speakers address climate, renewable energy

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KENNEWICK, Wash. - The Pacific Northwest is not yet suffering greatly from climate change, and it's a leader in producing renewable energy.

Speakers reached those conclusions Monday at the 10th Annual Northwest Harvesting Clean Energy Conference. More than 500 people gathered at the Tri-Cities Convention Center for the three-day event.

Claudio Stöckle, a Washington State University professor, addressed climate change during a panel discussion, "Harvesting Clean Energy 2020: A View to the Future." He said greenhouse gas emissions have been increasing in the atmosphere since the industrial revolution.

"This is not something to be in favor of or against," he said. "This is just a reality."

Greenhouse gases, such as water vapor, carbon dioxide, methane, nitrous oxide, and ozone, contribute to global warming, most scientists believe. Stöckle compared global warming to what happens to the air inside a parked car during summer.

Humans are responsible for the changes during the past 50 years, he said, but it's uncertain how those changes will alter Earth's energy balance.

"It's a good idea to move away from oil, no matter how inexpensive it is," Stöckle said.

Looking at the Pacific Northwest, he said residents will need to make few adaptations because of global warming.

"The climate change picture for this region is really not too bad," Stöckle said.

He offered some advice for farmers, however, suggesting that as temperatures rise, wheat growers should plant earlier.

"For our region to move a little more south is not a bad thing," he said, speaking figuratively. "Water, in some areas, could be an issue. Droughts may be more frequent."

A second speaker on the panel, Terry Walton, director of energy and environmental programs at the Pacific Northwest National Laboratory, Richland, Wash., discussed energy security. He said laboratory workers are focusing on five programs:

- Emissions capture and storage.
- Electrical energy.
- Biomass as a feedstock.
- Building efficiencies.

-Energy security.

Walton said carbon emissions are rising while domestic energy production is falling. In the United States, hydrocarbon-based energy comprises 71 percent of the total produced, nuclear is at 19 percent, and renewable energy amounts to 9 percent. Hydroelectric power equals 8 percent of the total while solar and wind power production amounts to about 1 percent.

The picture is much different in the Pacific Northwest, where 75 percent of the power is hydroelectric. The remainder is produced by a mixture of hydrocarbon-based fuels, such as coal or natural gas; by nuclear plants or by wind turbines.

Walton predicted it will be difficult to reach goals of deriving 10-15 percent of U.S. electrical needs from renewable resources within the next five years. It's also highly unlikely we'll reach the goal of 30 percent nuclear power in the same period.

What's needed to get there, he said, are smart grid technologies, novel materials for energy storage and improved energy transmission and distribution systems.

The third speaker, Chris Cassidy, a representative of USDA Rural Development from Washington, D.C., described the various funding programs his agency offers for research, development and demonstration of renewable energy programs.

"The Pacific Northwest traditionally has been a producer of hydropower, but we're not isolated to that alone," he said, "We have some challenges, but the Pacific Northwest definitely is the leader in this."