

Northwest Environmental Conference

How Well Will Green Survive?

Jason Eisdorfer

Bonneville Power Administration

December 8, 2008

Bonneville Power Administration Background

- The Bonneville Power Administration is a federal agency based in the Pacific Northwest.
- BPA markets wholesale electric power from 31 federal hydro projects in the Columbia River Basin, 1 nonfederal nuclear plant. About 1/3 of electric power used in the Northwest comes from BPA.
- BPA also operates and maintains the majority of the high-voltage transmission in the US Pacific Northwest.
- BPA's service territory includes Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah and Wyoming.

Government Climate Change Action: One Construct

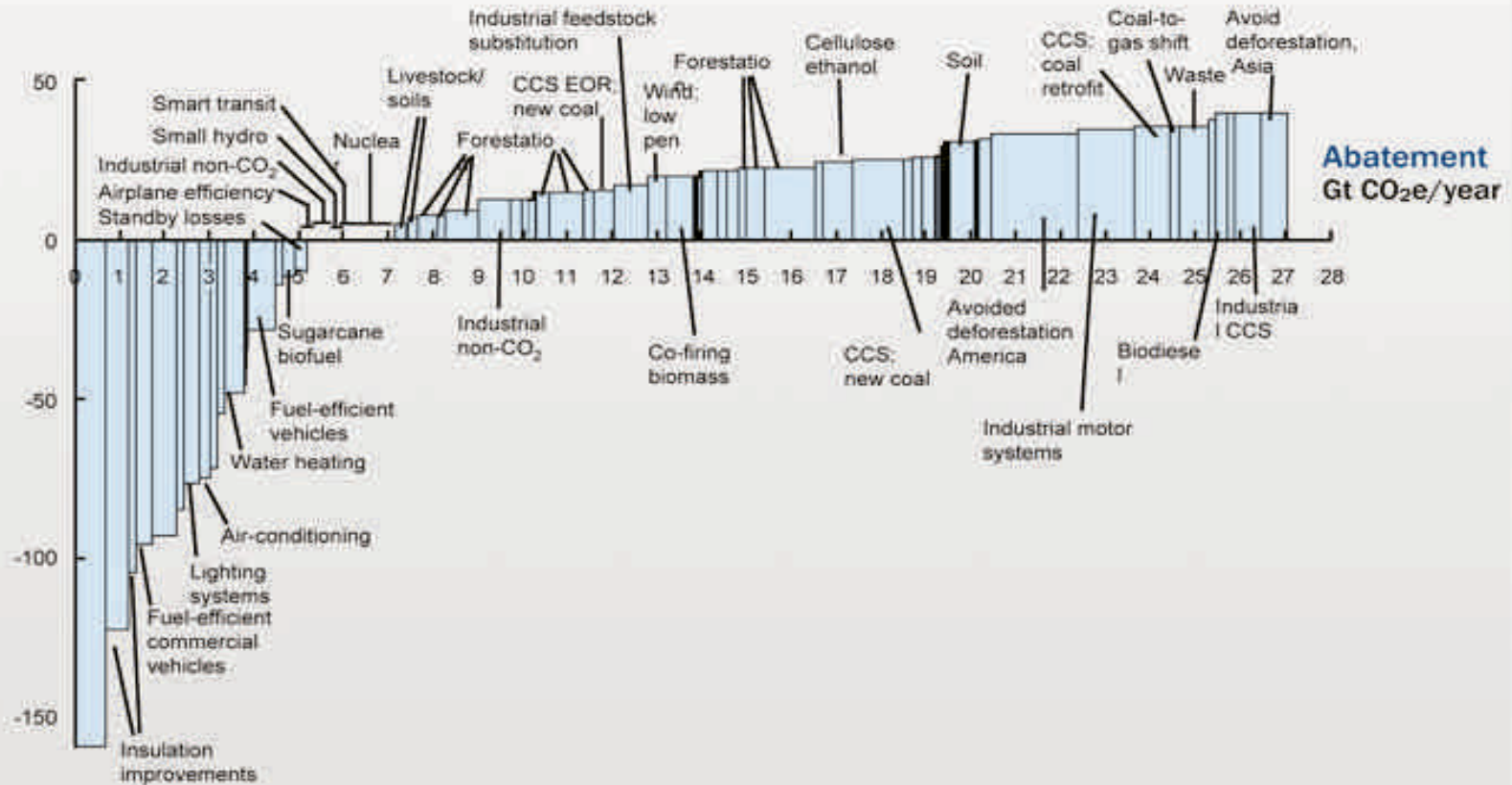
- Put a price on carbon: a tax or cap and trade. Targets the emission to be regulated. Economically efficient; shifts costs to those who emit; sends signal to the customer.
- Command/standard regulation: directed at technologies that are nearly cost-effective, face market barriers. RPS, EPS, codes.

Government Climate Change Action: One Construct

- Innovation: target technologies in earlier stages of development; need support to compete; potential to extend learning opportunities. Subsidy, tax credit, R&D funding, feed-in tariff.
- Direct infrastructure funding: furthers multiple policies – clean energy support, economic stimulus, energy security

THE COST CURVE PROVIDES A "MAP" OF ABATEMENT OPPORTUNITIES

Cost of abatement, 2030, €/tCO₂e*



* Cubic feet of carbon equivalents.

Source: McKinsey and Vattenfall analysis

THE ECONOMY

Are we in a recession yet?

We've been in a recession *since when?*

How long will it last?

How deep will it go?

The economy, climate change and clean energy

Does this mean that the state of the economy delays work on climate change and leaves clean energy without government support?

Consider the following:

John Podesta, Center for American Progress

(and co-chair of Obama Transition Team)

Green Recovery: A New Program to Create Good Jobs and Start Building a Low-Carbon Economy

- Create 2 million jobs in 2 years with:
- *Retrofitting buildings to increase energy efficiency*
- *Constructing “smart” electrical grid transmission systems*
- *Wind power*
- *Solar power*

John Podesta, Center for American Progress

(and co-chair of Obama Transition Team)

- ***\$46 billion in direct government spending.*** *This would support public building retrofits, the expansion of mass transit, freight rail, smart electrical grid systems, and new investments in renewable energy*
- ***\$4 billion for federal loan guarantees.*** *This would underwrite private credit that would be extended to finance building retrofits and investments in renewable energy.*

Obama Campaign Platform

- **Implement an economy-wide cap-and-trade program to reduce greenhouse gas emissions 80 percent by 2050.**
- **Make the U.S. a Leader on Climate Change. Ensure 10 percent of Our Electricity Comes from Renewable Sources by 2012, and 25 percent by 2025.**
- **Deploy the Cheapest, Cleanest, Fastest Energy Source -- Energy Efficiency.**
- **Weatherize One Million Homes Annually.**

Obama on the economy/clean energy/energy security

“[W]e need [] a whole new electricity grid. Because if we're going to be serious about renewable energy, I want to be able to get wind power from North Dakota to population centers like Chicago. And we're going to have to have a smart grid if we want to use plug-in hybrids . . . That can create 5 million new jobs just in new energy. But, it's huge projects that, generally speaking, you're not going to have private enterprise want to take all those risks. And we're going to have to be involved in that process.”

Obama on the economy/clean energy/energy security

“I have already directed my economic team to come up with an Economic Recovery Plan that will mean 2.5 million more jobs by January of 2011 — a plan big enough to meet the challenges we face that I intend to sign soon after taking office. . . it will be a two-year, nationwide effort to jumpstart job creation in America and lay the foundation for a strong and growing economy. We’ll put people back to work rebuilding our crumbling roads and bridges, modernizing schools that are failing our children, and building wind farms and solar panels; fuel-efficient cars and the alternative energy technologies that can free us from our dependence on foreign oil and keep our economy competitive in the years ahead.”

11/24/2009

Government as Backstop?

Government policy that supports clean energy for the purposes of climate change, job growth, infrastructure investment and energy security will

- a) act as support for clean energy industries and as a price backstop
- b) will stick around for a while.

Therefore, clean energy investments will be more likely to attract capital than other sectors. Also government could step in with infrastructure financing where the private markets are reluctant to tread.

BPA in the Near Term

- Continue to provide low cost/low carbon emission power to the Northwest
- Continue its energy efficiency programs
- Continue to explore ways to support new wind development
- Examine a role in smart grid technology
- Track new Administration direction on transmission infrastructure investment

BPA in the Near Term

- Research with University of Washington on climate change impacts.
- Executive training on climate change
- Climate Change Technology Innovation R&D Roadmap
- Voluntary reporting with The Climate Registry.
- Climate Change Assessment

Looking Ahead

- Immediate clean energy economic stimulus no later than June 2009?
 - Energy efficiency
 - Transmission infrastructure
 - Smart grid
- A national renewable portfolio standard?
- Cap and trade law by end of 2010?
- Carbon price signal by 2012 to 2015?