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 To:  
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### A better way to cap greenhouse gas emissions?

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Outside the United States, most of the world's developed nations are working to reduce their greenhouse gas emissions to comply with the Kyoto Treaty. The preferred means is placing an overall cap on total emissions, then allowing operators of facilities that exceed reduction goals to sell pollution credits to operators of dirtier, less efficient facilities.

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## Additional Resources

Meanwhile, the world's largest greenhouse gas emitter continues to burn along without a meaningful federal climate policy. To fill that void, individual states and groups of states are developing their own climate action plans. Like the Kyoto-endorsing countries, the states involved in the Northeast's Regional Greenhouse Gas Initiative (RGGI) and in the West Coast Governors' Global Warming Initiative (WCGGI) are exploring cap and trade as a mechanism for reducing their greenhouse gas emissions. The proposed McCain-Lieberman Climate Stewardship Act relies on a

[Northeast states' Regional Greenhouse Gas Initiative \(RGGI\)](#)  
[Washington state Climate Protection Advisory Committee's emissions-reduction recommendation](#)

[Oregon Governor's Advisory Group on Global Warming](#)

[California Energy Commission's climate strategy](#)

[California Public Utilities Commission's \*en banc\* hearing on climate change](#)

nationwide cap and trade system.

These are “source-based” cap and trade systems, in which limits are placed and/or credits are allocated to power plant owners, whether utilities or independent power generators. Such a system might work at the national level or in regions like the Northeast United States, but it would probably prove ineffective on the West Coast and in the Northwest.

This issue of *The Transformer* considers the shortcomings of a source-based cap and trade system for our region and offers a promising alternative, the “load-based” cap and trade.

## It's the load, stupid

A source-based cap and trade mechanism for reducing utility carbon emissions doesn't make sense for the West Coast. Power plant developers already shy away from Washington, Oregon and California, which have limited coal supplies, tight air emissions regulations and a high probability of intense local opposition to development proposals. Most new Western coal plants are destined for interior states where coal is more accessible and where air quality and mining laws are lax -- states such as Montana, Idaho and Nevada. The interior Western states also are far less likely to regulate carbon emissions before the federal government forces them to do so.

The existing and proposed coal plants in the interior West primarily serve loads on the West Coast. So any West Coast cap and trade plan for reducing power plants' greenhouse gas emissions will have to be “load-based.” In other words, rather than allocating emission credits to electricity generators, a load-based system would allocate the credits to utilities that generate power and/or purchase it on the wholesale electricity market.

Under a load-based system, a state agency or multi-state board would award credits to each utility or other

load-serving entity (LSE) within the relevant region. Each load-serving entity would have to secure enough greenhouse gas credits to serve its entire load. A more coal-dependent utility might have to purchase credits from a utility getting most of its power from hydro and renewable resources.

Over time, the state or regional authority lowers the cap, thereby reducing the overall number of credits. That gives utilities a strong financial incentive to divest their coal-based resources and invest in more energy efficiency and renewable resources.

Administratively, tracking the emissions purchased by utilities would be no more difficult than tracking a utility's obligations under a state renewable portfolio standard.

## The source of the problem

So why isn't load-based the cap and trade of choice? The source-based model is popular, especially in the Northeast and in D.C. policy circles, because of the highly successful 1980s acid rain program that capped sulfur dioxide (SO<sub>2</sub>) emissions from coal plants. Supply-side pollution credit trading was further embraced in the 1991 update of the federal Clean Air Act that integrated both the SO<sub>2</sub> program and a nitrogen oxide (NO<sub>x</sub>) reduction program. Power plant SO<sub>2</sub> emissions were reduced by more than 50 percent at a cost far less than predicted, while ozone-causing NO<sub>x</sub> emissions fell by more than 30 percent. In its Clear Skies initiative, the current Bush administration is promoting weaker free-market pollution credit trading mechanisms to replace remaining Clean Air Act regulatory mandates.

Northeast states benefited most from the acid rain program. So it's no surprise that when these states came together for the Regional Greenhouse Gas Initiative, they quickly defaulted to the source-based model. However, a [staff memorandum](#) presented to RGGI members last year says focusing on the demand

(load) side of the equation may be more effective at reducing greenhouse gas emissions, regardless of local power producing markets.

The memo's author argues that a sulfur dioxide cap and trade program is best directed at the smokestack owners who are in the best position to take emission-reducing actions such as switching to lower-emission fuels and installing scrubbers. But power plant managers can do little to reduce climate-changing CO<sub>2</sub> emissions from, say, a coal plant other than purchase mitigation credits. Utility boards and portfolio managers, on the other hand, can reduce overall emissions by switching their utilities from coal- to gas-generated electricity, by purchasing renewable energy and by investing in energy efficiency programs within their service territories. State public utility commissions are accustomed to examining investor-owned utilities' resource plans and cost-recovery issues.

## Setting in the West

The West Coast is far behind the Northeast in developing a regional climate plan, But each of the three West Coast states has involved environmental groups, utilities, local governments, business leaders and other stakeholders in developing a state action plan and participating in the regional effort.

- The Oregon Governor's Advisory Group on Global Warming recommended that Gov. Ted Kulongoski create a task force to examine the feasibility and potential design of a load-based "allowance standard" and whether the allowance standard should incorporate an emissions trading system. The Advisory Group also wants the task force to weigh the potential adoption of an interim plan to ease acceptance of a more comprehensive, longer-term strategy and to address such issues as making the system equitable for different types of emitters and fuel sources, leakage (increased emissions elsewhere), how to leverage a load-based regulatory system to promote economic development, keeping the state competitive with non carbon-regulating states, and the likelihood of at least some degree of federal preemption.

- Washington state's stakeholder process was carried out under the auspices of the Puget Sound Clean Air Agency, which established the Climate Protection Advisory Committee. CPAC specifically recommended cap and trade as a key strategy for reducing power plant emissions, but sidestepped the issue of source- versus load-based caps. Washington has yet to confront the questions raised by the Oregon Advisory Group, and has not even established a process to do so.
- The California Energy Commission has convened a stakeholder process to further the state's already comprehensive climate strategy. At its April meeting in Sacramento, the California Climate Change Advisory Committee discussed cap and trade, and load-based cap and trade in particular, as a means for reducing emissions from power imports to the state. (Additionally, California's Public Utilities Commission recently held a full-day *en banc* hearing that included representatives of the state Energy Commission, Cal/EPA and the governor's office. The PUC is examining several options to address carbon emissions by the state's regulated industries. Cap and trade is part of the discussion, along with mitigation strategies and incentivized voluntary programs.

## What's next

West Coast states are at least a couple years away from implementing a cap and trade system. A system that can accommodate other Western states and be integrated into a larger trading market with the Northeast RGGI states (and even Canada) has a far greater chance of success.

To be effective, however, any multi-state or nationwide emissions-trading scheme must close the source-based loophole. West Coast states must develop mechanisms for tracking, capping and trading emissions from the generation of all power **sold** in California, Oregon and Washington -- not just what's produced in those states.

**The NW Energy Coalition** is an alliance of more than 100 environmental, civic and human service organizations, progressive utilities and businesses in Oregon, Washington, Idaho, Montana, Alaska and British Columbia. We promote development of renewable energy and energy conservation, consumer protection, low-income energy assistance, and fish and wildlife restoration on the Columbia and Snake rivers.

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