

Environmental Watch

Examining Environmental Claims and Their Costs • September 2006

Seattle Climate Policy is Heavy on Dollars and Light on Change

Claim

“Mayor Greg Nickels today announced his Seattle Climate Action Plan, the cornerstone of the effort to reduce the city’s greenhouse gas emissions by 680,000 metric tons and meet the 2012 international goals of the Kyoto Protocol right here at home. ... ‘When it comes to climate change, we are all part of the problem – and part of the solution,’ Nickels said ‘Together, we can make Seattle the most climate-friendly city in the country.’”

Press Release, City of Seattle, Office of the Mayor, “Mayor Launches Effort to Cut Seattle’s Greenhouse Gas Emissions,” 9/27/2006, <http://www.seattle.gov/news/detail.asp?ID=6547&Dept=40> (Accessed 9/27/2006)

Facts

As part of his effort to reduce greenhouse gasses and promote the goals of the Kyoto Treaty, Seattle Mayor Greg Nickels announced a new \$37 million program to reduce carbon emissions in Seattle. The goal is to reach the Kyoto target of reducing carbon emissions by seven percent by 2012.¹ Funding would be provided in large part by a tax increase on the ballot in November.

As currently proposed, however, **the plan is likely to spend nearly twelve times more for carbon reduction as nationally recognized programs to reduce and offset carbon emissions.** The inefficiency of the program not only costs Seattle taxpayers, but also misses opportunities to reduce carbon emissions beyond the amount projected in this plan.

Carbon Costs Per Ton

To accurately compare the various climate programs, we can look at the cost per metric ton of reduced carbon emissions. In the case of Seattle, the carbon being reduced comes mostly or entirely from the City of Seattle and its residents. Other programs offer “offsets” which pay for projects that reduce carbon elsewhere to remove the same amount of carbon from the atmosphere that individuals or companies are emitting in Seattle.

The plan offered by the Mayor would put Seattle on a path to be 686,600 tons of carbon below the “business as usual” path by 2012. Assuming that Seattle achieves one-sixth of the goal each year for the next six years, Seattle would see annual reductions grow each year, and the cumulative amount of carbon offset would reach 2.4 million metric tons by the end of 2012.

To understand the potential cost of this effort we can spread the cost of the program over the potential reduction in carbon output. Although the program is vague in how the new tax money will be spent, it does include both one-time capital expenditures as well as ongoing costs. For instance, some of the money will be spent on expanding “pedestrian and bicycle infrastructure.” These programs are likely to have large up front costs and much smaller ongoing costs. Other costs will be ongoing, such as increasing the “supply of frequent, reliable and convenient public transportation.”

To understand the potential range of costs, the Center for Environmental Policy crafted two scenarios that take into account the potential costs. Scenario 1 assumes that the project would spend \$37 million every two years, for a total of \$111 million over six years. Although some costs would be one-time, it is not unlikely that the City would find new projects necessary to meet the targets in upcoming years. This scenario represents the high-water mark of potential costs.

¹ This piece does not address the validity of the Kyoto targets or strategy. For a comprehensive examination of the costs and effectiveness of Kyoto see Bjorn Lomborg, “Global Crises, Global Solutions,” (Cambridge: Cambridge University Press), 2004



WASHINGTON
POLICY CENTER



Center for
Environmental Policy

Todd Myers
Director
PO Box 3643
Seattle, WA 98124-3643
(206) 937-9691
todd@toddmymers.com
www.washingtonpolicy.org

Based on this analysis, the following chart shows the marginal cost per ton of carbon reduced and the cumulative average cost per ton of carbon:

Year	Tons Below Business as Usual	Cumulative Reduction	Annual Costs	Average Cost per Ton
2007	114,433	114,433	\$18,500,000	\$161.67
2008	228,867	343,300	\$18,500,000	\$107.78
2009	343,300	686,600	\$18,500,000	\$80.83
2010	457,733	1,144,333	\$18,500,000	\$64.67
2011	572,167	1,716,500	\$18,500,000	\$53.89
2012	686,600	2,403,100	\$18,500,000	\$46.19

Scenario 1 - \$111 million over six years

The Seattle plan calls for the city to emit 686,600 fewer tons of CO₂ per year by 2012. If the City takes incremental steps in that direction, the cumulative reduction grows each year. In year 1 the reduction is one-sixth of the six year goal. In year two emissions are one-third less than what would be emitted under a “business as usual” strategy. As a result, Seattle would emit 228,867 fewer tons of CO₂ in year two. Adding the savings from year one, Seattle hopes to reduce emissions by a cumulative 343,300 metric tons during the first two years. By 2012, this amounts to 2.4 million fewer tons of CO₂. Calculating the average cost per ton, by 2012 the taxpayers of Seattle will have spent an average of \$46.19 per ton of emissions reduced.

Scenario two is more generous and assumes that 75% of the costs of the program would be one-time only, and that ongoing costs would amount to only one-quarter of the cost to reach the goal. This is designed to represent the low water mark of potential costs.

The costs in Scenario 2 are half of Scenario 1, so by 2012 the average cost is \$23.10 per ton of CO₂ emissions reduced.

These analyses assume that the City will be completely successful in meeting the goals they have set out. This is, to say the least, a conservative assumption. The City counts reductions in CO₂ from such activities as “Strengthen the State Energy Code” and “Expand Efforts to Create Compact, Green, Urban Neighborhoods.” The success of these efforts is entirely speculative.

Annual Costs	Average Cost per Ton
\$18,500,000	\$161.67
\$18,500,000	\$107.78
\$4,625,000	\$60.62
\$4,625,000	\$40.42
\$4,625,000	\$29.64
\$4,625,000	\$23.10

*Scenario 2 - \$55.5 million
over six years*

Further, these don’t account for costs borne by others, including commuters or other jurisdictions. For instance, the City is counting on \$3 million a year from King County’s Transit Now plan to match the “\$1.5 million per year to increase Seattle transit service...” Including these costs would increase the cost per ton.

Comparing Seattle to Other Internationally Recognized Programs

To understand how wasteful the Seattle program will be, it is useful to compare the cost per ton to two other programs, both of which have projects in Washington and have been endorsed by the environmental community.

Last month, local politicians and environmentalists gathered in Ballard to celebrate a new effort called NetGreen which seeks to offset carbon emissions from businesses and individuals. NetGreen donates the money it collects to Climate Trust (www.climatetrust.org) a program in Oregon that supports projects that reduce carbon emissions. They say the average American creates about 20 tons of carbon emissions per year. Through NetGreen, each individual can pay, through Climate Trust, for a project that reduces carbon emissions by 20 tons, thus “offsetting” that individual’s emissions.

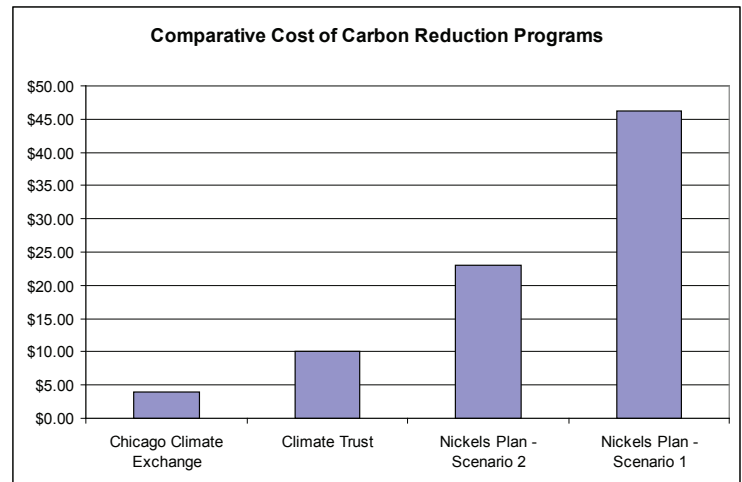
Climate Trust’s program is one of the most rigorous in the country and recently was recognized as the first U.S. based program to meet European standards for offsets, selling offsets to European company, “3C climate change consulting.”

Despite meeting those higher standards, Climate Trust charges only \$10 per ton of carbon emissions offset, or nearly one-fifth of the amount Seattle would pay with their program.

The Washington Policy Center has criticized the Climate Trust's programs in the past because it did not reduce carbon as much as promised. In this analysis, however, I am accepting numbers provided by all parties (the City of Seattle, the Climate Trust, etc.) at face value.

Climate Trust is not the only group selling carbon offsets. The Chicago Climate Exchange (www.chicagoclimatex.com) sells carbon offsets in a manner similar to the stock market. One of the programs they use to offset carbon emissions is in Lynden, Washington. The Vander Haak Dairy Project treats manure and generates electricity to reduce carbon and methane emissions, offsetting the emissions of others who pay for the credits.

As of September 28, the going rate to offset one ton of carbon is about \$4, or about one-twelfth of the cost proposed in the Nickels plan.



Comparing the costs of these various programs, we find that the City would spend anywhere from twelve to two-and-a-half times more than other existing methods.

Costs

The City of Seattle plan is, ironically, inefficient under any of the above scenarios. Purchasing carbon offsets from Climate Trust, as the Ballard program is planning, would cost only \$24 million. Purchasing offsets and investing in programs like that in Lynden would cost only \$9.6 million.

By contrast, the plan proposed by Mayor Nickels will cost tens of millions more than either of these options.

The cost is not only additional, and unnecessary, taxes paid by the people of Seattle. Assuming that the City of Seattle would not reduce taxes, **it could use the additional funding to reduce carbon emissions far beyond the target of 686,600 below business-as-usual by 2012.**

The plan proposed by Nickels, therefore, is not only costly, it isn't even environmentally responsible.