



STATE OF WASHINGTON
DEPARTMENT OF COMMUNITY,
TRADE AND ECONOMIC DEVELOPMENT

Washington Climate Challenge

Climate Advisory Team

Meeting #5

October 4, 2007

WA Departments of Ecology (Ecy) and
Community Trade & Economic Development (CTED)

Center for Climate Strategies

Ross & Associates

Agenda

- **Welcome and Agenda Review**
- **Updates on Emerging Regional and National Efforts**
- **Investment and Entrepreneurial Community Outreach Report**
- **Developing Washington's Comprehensive Climate Approach**
- **Quantification Principles and Guidelines**
- **Consideration of Selected TWG Options That Have Been Analyzed and are Ready for CAT Review**
 - Energy Supply
 - Agriculture
 - Transportation
 - Residential, Commercial & Industrial
 - Forestry
- **Additional Washington Climate Challenge Updates**
- **Next Steps**
- **Public Comment**

Western Climate Initiative (WCI) Update

As a recap:

- WCI Partners announced the regional GHG reduction goal on August 22, 2007
- Goal = aggregate GHG reduction of 15% below 2005 levels by 2020
- Regional, economy-wide goal is consistent with the emission goals of WCI partners, but does not replace partners' existing goals
- New entrants and updates to data may result in some incremental changes to the regional goal
- The WCI partners commit to doing their share to reduce regional GHG emissions necessary over the long term to achieve climate stabilization and significantly lower the risks associated with climate change
- Current science suggests that this will require worldwide reductions between 50% and 85% in carbon dioxide emissions from current levels by 2050 (IPCC)
- Current partners are Arizona, British Columbia, California, Manitoba, New Mexico, Oregon, Utah and Washington
- By August 2008, the partners will design a regional market-based multi-sector mechanism, such as a load-based Cap & Trade program to help achieve the goal

WCI Cont.

- New partners must adopt an economy-wide GHG reduction goal consistent with the level of effort of the WCI regional goal
 - Observers currently include: Alaska, Colorado, Kansas, Nevada, Ontario, Quebec, Saskatchewan, Sonora, Wyoming
- Each WCI partner is separately conducting stakeholder outreach
 - Washington will host a stakeholder meeting October 5, 2007 from 2:00 to 4:00 at the Ecology Building in Lacey and by phone
- Reporting Subcommittee is looking at how to ensure consistency with The Climate Registry, which all partners have joined

What is a Greenhouse Gas (GHG) Registry?

- A GHG registry is a “bottom-up” database for accurately tracking emissions of GHGs by entity or facility
- It is different from a state-wide inventory which tracks data “top-down”
 - A top-down inventory—while broader—is less accurate and less useful for policy implementation

The Climate Registry

- The Climate Registry is about precise, accurate measurement
 - Critical first step in addressing climate change
 - Per European experience, measurement is important
- It is policy neutral
 - TCR does not prescribe, but supports policy decisions made by states

Key Principles of The Climate Registry

- Common accounting standard and infrastructure to support state policies
- Policy neutral—leave policy to the states
- Recognized platform for credible and consistent GHG emissions reporting in North America across borders and industry sectors
- Independent third-party verification
- Public reporting while respecting business confidentiality

Benefits for Organizations to Report to The Climate Registry

1. A cost effective means to measure GHG emissions
2. Document early actions for state or federal recognition
3. Education for employees on GHG emissions
4. Prepare for potential regulation
5. Save money on energy
6. Access to software and technical support
7. Recognition as a global environmental leader

Value to States, Tribes, and Provinces

- Create accounting infrastructure to support their GHG policies
- Cost effective—build on what is established
- Collaborate with other jurisdictions
- A voice in establishing national standards
- Help companies to establish a baseline and demonstrate reductions

Three Step Process

- 1. Gather data annually, input into web-based software**
 - Reporting all 6 Kyoto gases (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆)
 - Direct sources: stationary, mobile, process and fugitive
 - Indirect sources: electricity and steam
 - Tracking mostly through utility bills and vehicle fuel
- 2. Verify data using third-party verifiers**
- 3. Report bottom line data publicly**

Investment and Entrepreneurial Community Outreach

- September 20 - Members of the investment and entrepreneurial (I&E) communities participated in a meeting to address two questions:
 1. What are the governmental 'market signals' that the financial community looks for when investing in clean energy/low carbon technologies?
 2. Are there any specific areas of interest to the financial community which connect with strategies under consideration in the Climate Challenge process?
- Ten people representing a variety of interests participated
- The dialog is continuing
 - The I&E group will review and distribute a summary of the discussion
 - Some I&E community members are providing feedback on TWG options
- Ideas generated from this outreach may inform the CAT's comprehensive climate approach discussion and final recommendations

Some Ideas From the I&E Community

- Investors are looking for markets, not market signals, and a market that's predictable, sufficient, and comprehensive
 - Market design is coherent across the region and the government is sending consistent signals (e.g. not having simultaneous discussions about viaduct replacement and GHG reductions)
 - Market is big enough to make it worth going after
 - Rather than focus on a specific small market, government can sponsor broad initiatives that are agnostic to technology and designed in terms of GHGs
- Government regulation that is stable, symmetrical, and streamlined can promote clean energy investment
 - The private sector is looking for stability as it provides investment capital
 - Asymmetry in the regulatory environment across state boundaries is a concern
 - Streamline the regulatory process so it is faster and less expensive (but don't loosen it)

Ideas from I&E on Carbon Tax and Cap & Trade

- General comments:
 - Consumer behavior is price driven, so pick a system that sends appropriate price signals throughout the economy
 - Carbon Tax and Cap & Trade are potentially mutually exclusive if covering the same activities and can be potentially synergistic if applied appropriately
 - Each approach has administrative and functional advantages and disadvantages
- Carbon tax
 - Pros:
 - Direct, simple and straightforward way to place carbon limitations and may be more efficient than Cap & Trade
 - Influences consumer behavior through pricing by directly hitting people's pocket books
 - Raises revenue for the government that can support other clean energy initiatives (e.g. higher education)
 - Provides opportunities for 'tax credits' as an additional incentive
 - Cons:
 - A Washington-only carbon tax that can sufficiently change behavior to meet the goals would be difficult to set, and represent a significant competitive disadvantage in a global economy
- Cap & Trade
 - Pros:
 - Allows auctioning, trading, and other tools to more efficiently and accurately set prices
 - Can build on existing international carbon markets that are defined and operating with \$10 billion in trades
 - If Cap & Trade raises prices and affects consumer behavior, it can deliver what the investors and entrepreneurs like about taxes
 - Cons
 - Possible lack of clarity around "what" carbon is a tradable, fungible commodity
 - Unclear how transportation can be addressed with Cap & Trade

Additional I&E Ideas

- Government can provide a long-term commitment, a clear declaration of the changes we're facing, and significant carbon reduction targets that demonstrate there is a large and sustained market to pursue
- To increase jobs, focus on building companies rather than 'projects', as engines for economic growth
- Local Venture Capital-level investment in clean energy is still low and the way to attract it is based upon intellectual capital - money follows ideas, ideas come from people
 - State should increase support for higher education, research and technology transfer (e.g. use tax revenue to provide tenured professorships in clean technology)
 - California's thorough and wide-reaching policies have generated significant intellectual capital
- Washington's level of power rates disincentivize energy efficiency and new energy supplies (e.g. CA has tiered pricing for electricity grades)
- Provide a business income tax credit for qualified high-tech businesses and companies who take measures to increase efficiency (e.g. business income tax credit)
- Specific comments on TWG ideas are still coming in and will be posted

Developing Washington's Comprehensive Climate Approach

- A comprehensive approach will include the individual TWG strategies (which are crucial for continued progress on emissions reductions) as well as a Cap & Trade program
 - Both individual strategies (coming through the TWGs and PAWG work) and broader economy-wide 'signals' will be needed for the emission reduction goals to be achieved
 - The CAT may wish to make recommendations regarding other elements of a comprehensive climate approach
 - CAT can incorporate various inputs (the webinars, outreach to I&E community, updates from WCI and The Climate Registry, CAT member perspectives) into its recommendations

Washington and the WCI

- The State is committed to developing and implementing a market-based mechanism to meet the GHG emission reduction goals that are in statute
- Market based mechanism to be implemented is some form of Cap & Trade (C&T)
- Design elements for C&T will be developed in the Western Climate Initiative (WCI)
 - Because the design work of WCI won't be done until August 2008, the design/implementation authority for C&T will be sought in 2009, based on a report developed after WCI completes its work
 - A report on the WCI design with implementation needs would be submitted to Governor and Legislature in December 2008
- Regardless of policy instrument, ensuring emissions releases and reductions are measured is critical to any GHG reduction program, whether state-only, regional, or federal
 - Regulatory required emissions reporting will be needed as a component of any C&T program
 - Critical if there is credit given for early voluntary actions
 - The State should pursue authority from the Legislature in the 2008 to establish comprehensive emissions reporting
 - This will give a tool to help ensure the goals are met and will support regional or federal C&T
 - Ecology already has the authority to require reporting but it is permissive

Washington and the CAT

- The State intends to ask the CAT for advice and counsel on specific WCI issues
- Over the next four meetings, the CAT is asked to provide input:
 - Oct 4 meeting - Principles that Washington should use as a guide in the WCI process, using the principles already agreed to by the WCI as foundations
 - Nov, Dec, and possibly Jan CAT meetings - Concepts or ideas about a select number of C&T design issues that the State believes have significant Washington-specific concerns or potential contradictions

WCI Principles for a Regional Cap & Trade Program

1. Is equitable, administratively simple for government and private participants, minimizes administrative costs, and has a clear compliance path;
2. Maximizes total benefits throughout the region, including reducing air pollutants, diversifying energy sources, and advancing economic, environmental, and public health objectives, while also avoiding localized or disproportionate environmental or economic impacts;
3. Requires all reductions to be real, surplus/additional, verifiable, permanent, and enforceable;
4. Stimulates investment, especially in low carbon technologies, and rewards innovations that will lead to long-term permanent greenhouse gas reductions;
5. Covers as many sources as is practical, while encouraging pollution reductions beyond the capped sources and sectors;
6. Provides appropriate recognition and incentives for early emissions reductions;
7. Assures a transparent and robust accounting system that will measure and report emissions rigorously and consistently across all sectors and throughout the region;
8. Minimizes the potential for leakage; and
9. Facilitates linkage to similarly rigorous regional and international greenhouse gas reduction markets and encourages other states, provinces, and countries to join the market.

C&T Principles for Washington

- Discussion:
 - Principles v. design elements
 - Principles are overarching statements that will guide the design of the C&T program elements
 - Are there other principles, in addition to those agreed to by WCI, that Washington should use as a guide in WCI?
 - The full WCI will not necessarily be asked to embrace any ‘Washington-centric’ principles

Quantification Guidelines for Quantifiable TWG Policy Options

- Consistent and transparent data sources, assumptions and methodologies
 - Avoid double-counting through integrated analysis where relevant
 - Account for GHG benefits directly linked to policy options; some may occur out-of-state (e.g. recycling, biofuels, electricity imports)
- Common units and results
 - Net GHG reduction potential in the years 2012 and 2020, cumulatively 2008-2020
 - Net present value (NPV) cost (or savings) 2008-2020, 5% real discount rate
 - Cost per metric ton of CO₂ equivalent emissions reduced (or removed)
- Cost analysis
 - Direct NPV cost or cost effectiveness analysis, as widely applied to GHG mitigation policy, using a state-wide cost perspective
 - Capital (equipment), operation and maintenance, fuel and materials, administrative costs (where readily estimated)
 - Qualitative assessment of other benefits and costs where information available:
 - Environmental/health/social impacts, improved road safety, energy security benefits, etc.
 - Macroeconomic impacts, e.g. of reduced or increased consumer spending
 - Distribution of cost and benefits among actors in the economy

Ten Step Work Plan

1. Develop initial GHG inventories and forecasts
2. Identify possible GHG mitigation options
3. Identify initial priorities for evaluation
4. *Evaluate supply potential, cost effectiveness; ancillary and feasibility issues as needed*
5. *Identify barriers, alternative policy design needs*
6. *Modify, add or subtract options as needed*
7. Evaluate cumulative results of options (including job creation and fuel imports)
8. Iterate to consensus, with votes as needed
9. Aggregate options into implementation scenarios
10. Finalize recommendations and report language

Technical Working Group Briefings

- Update on recent TWG meetings and activities
- Overview of initial options ready for CAT review
 - Energy Supply – 3 options out of 7 ready
 - Transportation – 2 options out of 12 ready
 - RCI - 4 options out of 11 ready
 - Agriculture – 1 options out of 8 ready
 - Forestry – 0 options out of 8 ready
- Brief status report on other options, requests for input and guidance from the CAT
- CAT members review of initial options and decision on a path forward for each option

CAT Review Process of Initial TWG Options

- Overall policy design and draft analysis (where relevant) are established and agreed by the TWG
 - TWG work is ongoing but not on a structural level: e.g. overall editing, drafting of other sections (e.g. uncertainties, additional costs and benefits), refinement of data and assumptions for quantitative analysis
- CAT is asked to review the option, and
 - Approve, subject to specific agreed revisions if indicated, or
 - Identify specific barriers to consensus, and provide guidance to the TWGs (e.g. potential alternatives to consider)
- If the CAT gives the option a preliminary OK, the CAT will set the option aside for review with the complete package in December
 - In December, the CAT to look across the full cross-walked set of options and bundle, prioritize, rank or otherwise decide on which options to recommend
 - TWGs will continue to work on the options considered today, but will focus foremost on the remaining options on the list in advance of the November 15-16 CAT meeting

CAT Decision-Making

- Key principles of the CAT process:
 - Transparent
 - Inclusive
 - Step-wise
 - Fact-based
 - Strive for consensus
- The process will seek, but not mandate consensus
- Decisions on individual policy options are conducted by a simple request for objection at the point of decision
- Issues on individual policy options are resolved through discussion and development of alternatives, as needed
- Final votes on the complete package include support at three levels
 - Unanimous consent (no objection)
 - Super majority (four objections or less)
 - Majority (less than half object)
- Final report will document level of support for individual CAT recommended options, including alternative views as needed

Energy Supply TWG

#	Mitigation Option Name	Status
ES-1	Grid-based renewable energy incentives and/or barrier removal	In Progress
ES-2	Distributed renewable energy incentives and/or barrier removal	Ready for CAT Review
ES-3	Efficiency improvements at existing renewable and power plants	In Progress
ES-4	Technology Research & Development, plus Technology-Focused Initiatives	Ready for CAT Review
ES-5	CCSR (including pre and post-combustion) incentives, requirements and/or enabling policies plus R&D	In Progress
ES-6	Transmission system capacity, access, efficiency, and Smart Grid	In Progress
ES-7	Combined Heat and Power (CHP) and Thermal Energy Recovery and Use	Ready for CAT Review

Agriculture TWG

#	Mitigation Option Name	Status
AW-1	Manure Digesters/Other Waste Energy Utilization	In Progress
AW-2	In-State Production of Biofuels and Biofuels feedstocks	In Progress
AW-3	Significantly Expand Source Reduction, Reuse, Recycling and Composting	Ready for CAT review
AW-4	Agricultural Carbon Management	In Progress
AW-5	Agricultural Nutrient Management	In Progress
AW-6	Reductions In On-Farm Energy Use and Improvements in Energy Efficiency	In Progress
AW-7	Preserve Open Space/Agricultural Land	In Progress
AW-8	Support for an Integrated Regional Food System	In Progress

Transportation TWG

#	Mitigation Option Name	Status
T-0	New Funding Mechanisms	In Progress
T-1	Transit, Ridesharing, and Commuter Choice Programs	In Progress
T-2	State, Regional, and Local VMT and GHG Reduction Goals and Standards	In Progress
T-3	Transportation Pricing	In Progress
T-4	Promote Compact and Transit-Oriented Development	In Progress
T-5	Quantification of GHG Impacts of Transportation Plans, Programs, and Projects	In Progress
T-6	Improvements to Freight Railroads and Intercity Passenger Railroads	In Progress
T-7	Diesel Engine Emission Reductions and Fuel Efficiency Improvements	In Progress
T-8	Local Transportation Financing Tools and Bicycle and Pedestrian Infrastructure Improvements	In Progress
T-9	Transportation System Management	In Progress
T-10	Actions to Accelerate and Integrate Plug-In Hybrid Electric Vehicle Use	Ready for CAT Review
T-11	Low Carbon Fuel Standard	Ready for CAT Review
T-12	Zero Emission Vehicle Standards	In Progress

Residential, Commercial & Industrial TWG

#	Mitigation Option Name	Status
RCI-1	Demand-Side Management (DSM) Energy Efficiency Programs, Funds, or Goals for Natural Gas, Propane, and Fuel Oil	Ready for CAT review
RCI-2	Targeted Financial Incentives and Instruments to Encourage Energy Efficiency Improvements (Business Energy Tax Credit and Private/Public Efficiency Funds)	Ready for CAT review
RCI-3	Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors	In Progress
RCI-4	Energy Efficiency Improvement in Existing Buildings, with Emphasis on Building Operations	In Progress

#	Mitigation Option Name	Status
RCI-5	Rate structures and Technologies to Promote Reduced GHG Emissions (including Decoupling of Utility Sales and Revenues)	Ready for CAT Review
RCI-6	Provide Incentives to Promote and Reduction of Barriers to Implementation of Renewable Energy Systems	Prepared jointly with ES TWG -- In Progress
RCI-7	Provide Incentives and Resources to Promote and Reduction of Barriers to Implementation of Combined Heat and Power (CHP, or “cogeneration”) and Waste Heat Capture, Including Net-metering for Combined Heat and Power	Prepared jointly with ES TWG -- In Progress
RCI-8	Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings	Ready for CAT Review
RCI-9	Identify GHG Emissions Impacts and Measures to Avoid, Minimize, or Mitigate them for Projects Requiring Government Review, and in Designing Government Rules and Regulations	In Progress
RCI-10	More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design	In Progress
RCI-11	Policies and/or Programs Specifically Targeting Non-energy GHG Emissions	In Progress

Forestry TWG

- Policy Options Status
- Summary of Updates to Forestry Emissions Inventory

#	Mitigation Option Name	Status
F-1	Improved Forest Health	In Progress
F-2	Reduced Conversion to Nonforest Cover	In Progress
F-3	Enhanced Carbon Sequestration in Forests	In Progress
F-4	Enhanced Carbon Sequestration in Harvested Wood Products	In Progress
F-5	Expanded Use of Wood Products for Building Materials	In Progress
F-6	Expanded Use of Biomass Feedstocks for Electricity, Heat and Steam Production	In Progress
F-7	Improved Commercialization of Advanced Lignocellulosic Processes (hydrolysis, gasification, pyrolysis or other)	In Progress
F-8	Urban and Community Forests	In Progress

Preparation/Adaptation Working Groups Update

- PAWGs are meeting regularly and continuing to develop recommendations for their sectors
 - PAWGs are evaluating possible actions across a set of criteria
 - Likelihood of occurrence, severity, scope, ability to prepare and adapt
 - PAWGs are also evaluating implementation approaches and existing mechanisms
 - Each PAWG will develop three to five priority strategies
 - Actions will be recommended within the strategies for each sector
 - Cross-cutting recommendations will also be identified
 - PAWGs will also identify additional research needs
- PAWGs will complete their draft reports November 16
 - Final draft PAWG recommendations will be presented for public review and comment with the CAT recommendations in mid-December
 - PAWG recommendations will be included in the final Executive Order report
- PAWG members are also helping identify education and engagement opportunities

Education and Engagement

- Currently developing a matrix of education and engagement opportunities that correspond with TWG and PAWG options
 - Looking at opportunities within all priority options
 - Identifying targeted audiences, desired behavior changes, and potential strategies
- Mid-October
 - Conducting summits with education practitioners and stakeholders in Eastern and Western Washington to identify who is currently offering climate change education and to identify gaps
 - Will summarize results from summits and refine matrix to identify who can provide education and engagement opportunities to various audiences
- Early November
 - Share matrix with broader audience of practitioners and stakeholders
 - Refine, based on comments
- December
 - Draft recommendations to include in final, full report to Governor Gregoire

Public Engagement/Outreach on the Final Draft Recommendations

- Opportunity for:
 - Public review and comment on the final draft CAT and PAWG recommendations
 - Increasing awareness about what's been accomplished by the process, and about climate change issues generally
- Four public meetings around the state in mid-December
 - Following December 4-5 CAT #7 meeting
 - Four-hour public meetings in Tri-Cities, Spokane, Vancouver, Puget Sound area
 - Agenda
 - Brief overview of Executive Order charge and process
 - Brief overview of climate change impacts in WA, and what has already been accomplished
 - Presentation and description of final draft CAT and PAWG recommendations
 - Q&A with CAT members and staff
 - Public comment
 - Attended by CAT Co-Chairs/ Staff and CAT members from the geographic area
- Will also have a complementary web-based process

Next Steps

Interim TWG meetings

- Develop remaining policy options for consideration at the next CAT meeting
- Integrate CAT feedback and further develop the options discussed today

CAT Meeting #6 (Nov. 15-16, Olympia)

- Discuss comprehensive climate approach
- Final review and approval of emissions inventory and forecast
- Review analysis results for remaining policy options and
 - Approve as indicated, or
 - Identify specific barriers to consensus and potential alternatives for remaining options, with guidance for additional work on options to TWG's, as needed
- As the full suite of options from each TWG is completed, begin to review and discuss cross-cutting issues and cumulative impacts of options
- Review final report progress and plans

Schedule for Remaining CAT Meetings

- Meeting #7: December 4-5, Seattle
- Meeting #8: January 25, Olympia

Public Comment

**For more information
and to submit written comments**

[www.ecy.wa.gov/climate change](http://www.ecy.wa.gov/climatechange)