

# GOVERNOR'S CLIMATE CHANGE INTEGRATION GROUP CHARTER May 5, 2006

## BACKGROUND

Governor Kulongoski has committed Oregon to reducing its greenhouse gas emissions in cooperation with the governors of California and Washington through the West Coast Governors' Global Warming Initiative. He established the Governor's Advisory Group on Global Warming in 2004 to develop a state strategy to complement the regional effort.

The Advisory Group issued its recommendations to the Governor in the *Oregon Strategy for Greenhouse Gas Reductions* (2004). The *Oregon Strategy* demonstrates that the means to reduce greenhouse gases are at hand or within technological reach and could be achieved through investments that can generate net economic returns over time and that can help Oregon businesses to stay competitive in a world moving to greenhouse gas limits.

The Governor's Advisory Group recommended a suite of policies and measures to reduce Oregon's greenhouse gas emissions and recommended goals to guide their implementation. Governor Kulongoski endorsed the goals and the key recommendations of the Advisory Group<sup>1</sup>. The Governor has taken significant actions to implement the recommendations, including (1) adopting the report's proposed carbon reduction goals (arrest increases by 2010; reduce emissions to 10 percent below 1990 levels by 2020; and reduce emissions to 75 percent below 1990 levels by 2050); (2) signing into law new appliance efficiency standards; (3) working with the Environmental Quality Commission to adopt greenhouse gas emission standards for vehicles; and (4) creating a task force for designing a carbon allocation standard for greenhouse gas emissions from electricity use and other sectors. There are numerous other actions that are also underway to implement the recommendations.

The Governor is now establishing the Climate Change Integration Group to continue and expand on the work of the Advisory Group. The Governor's charge to the Climate Change Integration Group is: "to develop a climate change strategy for Oregon that provides long-term sustainability for the environment, protect public health, consider social equity, create economic opportunity and expand public awareness."

Oregon's strategy is first based on science. Almost all scientists with the relevant expertise now believe that the Earth is warming, that humans are affecting climate, and that continued unchecked climate change will seriously affect the quality of life of people everywhere. The international group of thousands of scientists with expertise in climate matters, the Intergovernmental Panel on Climate Change, or IPCC, issues a periodic report that summarizes what is known about climate change. In its 1995 Second Assessment Report, the IPCC concluded: "'the balance of evidence suggests that there is a discernible human influence on

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<sup>1</sup> See "Environmental Principles and Priorities: Global Warming and Energy" at [www.governor.oregon.gov/Gov/GNRO/global\\_warming\\_energy.shtml](http://www.governor.oregon.gov/Gov/GNRO/global_warming_energy.shtml)

global climate." In 2001, the IPCC's Third Assessment Report concluded, "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities." The upward trajectory of average global temperatures continues, with nine of the 10 hottest years in the last 150 having occurred in the last 10 years (1996 - 2005). The findings of the IPCC have been endorsed by every credible independent assessment conducted by reputable scientists, including in 2001 by the U.S. National Academy of Sciences<sup>2</sup>.

In 2004 a group of scientists from the Pacific Northwest convened at Oregon State University to review evidence for climate changes in our region and to evaluate the likely impacts of further changes. They shared their findings through a "Scientific Consensus Statement on the Likely Impacts of Climate Change on the Pacific Northwest"<sup>3</sup>. That document, signed by 50 Ph.D. scientists, "agree that climate change is underway and that it is having global effects as well as impacts in the Pacific Northwest region." The document summarizes climate change impacts that have been documented over the last few decades:

- The Pacific Northwest is warming.
- Average annual precipitation has increased.
- Land on the central and northern Oregon coast is being submerged by rising sea level.
- Snow pack has declined.

The report also makes a number of predictions about likely changes over the next 10 to 50 years:

- The Pacific Northwest will continue to warm, perhaps by as much as 3° to 6° F over the next 40 years;
- There will be more summer drought;
- Forests will be more vulnerable to insects, disease and fire;
- Snow pack will continue to diminish;
- Water resource conflicts will likely increase;
- Precipitation changes are too uncertain to call;
- Sea level will continue to rise;
- Peak stream flows will occur earlier in the season;
- Ocean circulation will continue to change, with increased upwelling a possible result. It is uncertain whether these changes will have adverse impacts such as a recurrence of the low-oxygen ("dead zone") events seen in 2002 and 2004; and,
- There will be more frequent and harmful floods and coastal erosion.

The strategy also recognizes that climate change is affecting the economy of Oregon and that these economic consequences will expand as warming increases. In 2005, more than 50 economists from across the Northwest and most of Oregon's major colleges and universities released a report, "The Economic Consequences of Climate Change in Oregon"<sup>4</sup>. The report

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<sup>2</sup>. Climate Change Science: An Analysis of Some Key Questions; National Research Council, 2001, National Academy Press. See <http://www.nap.edu/catalog/10139.html>

<sup>3</sup> <http://egov.oregon.gov/ENERGY/GBLWRM/docs/Global-AppendixC.pdf>

<sup>4</sup> [http://ri.uoregon.edu/programs/GWS/climate\\_change\\_oregon.html](http://ri.uoregon.edu/programs/GWS/climate_change_oregon.html)

warns that global warming poses an imminent threat to Oregon's \$121 billion economy. The report assesses how temperature increases, rising sea levels, and altered precipitation patterns will directly impact Oregon's agricultural, forestry, tourism, and hydroelectric industries. These four sectors alone account for at least 25 percent of Oregon's economy. The economists note that the impacts of this warming on Oregon resources and economy have no precedent in the state's history.

Acknowledging that efforts to date are preliminary, the economists agreed that available evidence supports the following eight propositions:

- 1) Rising average temperatures due to global warming will impose economic costs on many Oregonians in the near term, primarily due to lower river flows and restricted supplies of water associated with the loss of mountain snow pack and earlier snowmelt.
- 2) In the longer term, but within this century, these and other costs are likely to increase as negative effects of rising temperatures and rising sea levels on water supplies, beach loss and coastal infrastructure, agricultural crop production, and forests, fisheries, and other resources become more pronounced.
- 3) Rising average temperatures also increase the risk of certain catastrophic events that can affect Oregon.
- 4) Many of the projected changes to Oregon's environment and natural resources (e.g., large reductions in summer water supplies, loss of mountain snow, beach inundation, and changes in regional ecosystems) are likely to have negative effects on Oregonians' jobs, incomes, and quality of life.
- 5) An insurance approach – spending now to protect against potentially large future costs with an unknown probability generated by climate change – can be a prudent way to protect against both the risks themselves and the future costs of reducing those risks, which are expected to increase the longer action is delayed.
- 6) “Insurance premiums” against climate change risks include reasonable measures to reduce greenhouse gas emissions, to displace fossil energy use through improved efficiency and local non-carbon polluting energy sources, and to encourage in-state investment in renewable energy technologies and energy efficiency.
- 7) Such an insurance approach at the state level has the greatest chance of success if undertaken in conjunction with similar efforts by other states and regions.
- 8) Supporting the development of industries associated with the clean and renewable energy sectors may lay a foundation for job and income growth in Oregon and demonstrate leadership that benefits the state's economy and well-being.

There are also opportunities for Oregon to develop new businesses and take advantage of opportunities provided by climate change. New technologies for monitoring and predicting environmental change and delivering knowledge services are becoming important economic engines and Oregon can capture a significant portion of this economic opportunity by providing leadership in combating global warming. Developing renewable sources and increasing energy efficiency as well as growing related technology and manufacturing are also key opportunities for economic development.

## **PURPOSES**

The work of the Advisory Group and the Governor's endorsement of its recommendations provide the stepping stones for the Integration Group to move forward. The purposes of the Integration Group are four-fold:

- 1) Assist me in prioritizing and implementing remaining recommendations in the *Oregon Strategy for Greenhouse Gas Reductions* (2005); receive reports from state agencies and other implementers, and make additional recommendations to achieve the goals of the strategy;
- 2) Assess the current state of knowledge about the sensitivity, adaptive capacity, and vulnerability of natural as well as human economic and social systems to climate change in Oregon and prepare recommendations about how the state can become more resilient and adapt to unavoidable changes;
- 3) Stimulate new research programs on mitigation and adaptation strategies in collaboration with the Oregon University System; and,
- 4) Provide a clearinghouse for sharing information with citizens about climate change impacts and the opportunities in Oregon to address those impacts in an environmentally and economically sustainable manner.

The Integration Group will base its recommendations on the best possible current scientific knowledge, common sense and consideration for the welfare of all Oregonians. The Integration Group will make its first recommendations to Governor by December 30, 2006, with a subsequent more in depth report by December 2007.

### **A. Parameters for Reviewing the Implementation of the *Oregon Strategy for Greenhouse Gas Reductions***

The Integration Group will track the implementation of the recommendations in the *Oregon Strategy*. It will receive reports on the success of developing policies and implementing actions to achieve the state's greenhouse gas reduction goals. It will serve as a forum for developing additional recommendations to reduce, avoid or sequester greenhouse gas emissions.

### **B. Parameters for Developing Strategies for Adaptation**

Both ecological and human systems are sensitive to climate change. Those at risk include, but are not limited to the following: hydrology and water resources; agriculture and forestry; terrestrial and freshwater ecosystems; coastal zones and marine fisheries; human settlements; winter and coastal tourism and recreation; energy production; industry; property values; insurance and other financial services; and health.<sup>5</sup> Adaptation

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<sup>5</sup> "Summary for Policymakers; Climate Change 2001: Impacts, Adaptation, and Vulnerability; A Report of Working Group II of the Intergovernmental Panel on Climate Change."

is needed now to reduce and manage the risks from climate change.

The Integration Group will look at a range of scenarios and studies of likely climate change and the likely sensitivities, vulnerabilities and impacts on natural and human systems. It will look for the features of a system that keep it resilient, recognizing the inherent complexity of coupled human/natural systems. The Integration Group will look for ways to position the state to take advantage of economic opportunities that can help the state and others reduce greenhouse gas emissions and adjust to climate change.

The Integration Group will look for the linkages between natural and human systems. Ecosystem services are one critical linkage between natural and human systems. Ecosystem services are the benefits provided by ecosystems to people; and, climate change is modifying the delivery of ecosystem services to people. The provision of drinking water, food, flood control, fertile soil, control of pests and diseases, etc., are examples of ecosystem services.

The Integration Group will draw upon the state-of-the-art understanding of climate, ecosystem services, adaptation, resilience, vulnerability, and coupled social/natural systems. It will begin its deliberations with scientific presentations of what is known from scientific research. The Integration Group will start from the "Scientific Consensus Statement on the Likely Impacts of Climate Change in the Pacific Northwest." The group will also use as a starting point the consensus document produced by economists, "The Economic Consequences of Climate Change in Oregon."

The Integration Group recommendations will recognize the inherent uncertainty of any future projections of climate or impacts. Hence, adaptation strategies will be crafted to enhance intrinsic resilience and adaptive flexibility. However, even given the uncertainties of future scenarios, the potential impacts must be estimated in order to balance the costs of doing nothing against the anticipated costs of adaptive strategies.

The Integration Group includes a fair representation of parties with scientific, public, economic, and environmental interests at stake, along with appropriate state agency staff. The Integration Group will review current efforts by agencies, businesses, organizations, and citizens to incorporate adaptation to climate change into their planning and management assumptions. The Integration Group will choose an integrated set of recommendations for specific actions that citizens, businesses, organizations, the State, and local governments should take. The adaptation strategy will complement and, where possible, will enhance the strategy recommended in the *Oregon Strategy for Greenhouse Gas Reductions*.

During 2006, the Integration Group will prepare a strategy that focuses on immediate actions that Oregonians should take to begin adapting to climate change for the most affected sectors. The 2007 report will focus on a more comprehensive assessment of the needs for adaptation and will develop a long-term strategy.

**C. Parameters for Stimulating New Research in Mitigation and Adaptation**

The Integration Group will work with representatives from the Oregon University System to explore new opportunities for research on the mitigation and adaptation to climate change in Oregon and the Pacific Northwest. This will include coordination with Federal opportunities in both science and technology as part of the US Climate Change Research Initiative.

The Integration Group and OUS will develop a set of integrated science and technology initiatives by the end of 2007.

**D. Parameters for Serving as a Clearinghouse for Information**

The Integration Group will serve as a clearinghouse for information about measures Oregonians can take to reduce their greenhouse gas emissions and to adapt to change. It will provide a forum for all those working on climate change to inform Oregonians of their efforts and successes. It will serve as a locus for learning about efforts at local, state, national and international levels. It will also serve as a source of information for others about what Oregon is doing.

**INTEGRATION GROUP STRUCTURE**

**Integration Group Co-Chairs**

The Governor has named Dr. Mark Abbott and Mr. Ned Dempsey as Co-Chairs of the Integration Group. In this role they will serve as the spokespersons for the Integration Group and will work with the Department of Energy staff and consultants to organize the meetings and direct the process.

**Integration Group Membership and Responsibilities**

The Governor approved the initial list of Integration Group members. They represent policy decision-makers in key sectors that will be affected by changes to natural and human systems through global warming. Future members may be added by the co-chairs in consultation with the Governor's Office.

It is important to have consistent and regular participation throughout the process. However, if a member cannot make a particular meeting, he or she is encouraged to send an alternate who has been kept informed of the issues and can represent the interests represented by that member.

**Meeting Schedule**

The Co-Chairs will develop a meeting schedule in consultation with members.

**Members' Responsibilities**

1. Attend meetings, and if there is an unavoidable absence, have an alternate attend and keep the member informed.
2. Represent the interests of their sector as well as possible, but members do not make any

- commitment for their organizations unless they specifically state that intention.
3. Review materials distributed between sessions and respond in a timely manner to any requests for comment or information.
  4. Work together to understand the issues involved and the needs and concerns of other members and to search for consensus.
  5. Raise issues, concerns and questions in a timely manner during discussions and/or during e-mail exchanges.
  6. Regard silence on an issue as assent. If a member is undecided and thus not speaking on an issue, he/she should make that known to the Integration Group.
  7. Consider the public input received on the draft proposals.
  8. Assist in preparing reports to the Governor by December 2006 and December 2007.
  9. Support implementation of the portions of the recommended proposal if it achieves consensus.
  10. Members will speak to the press only about their own views and will not attempt to represent or characterize the views of other members.

### **Integration Group Elements**

1. **Integration Group.** The Integration Group will be composed of stakeholders from the agricultural, forestry, fishing, water supply, electric and gas utilities, various industries, state and local governments, and from environmental, climate change, and other interested parties or organizations.
2. **Staff Working Group.** The Staff Working Group will be a sub-group for coordination of agency policy perspectives, principally through their designated representatives. The departments of Energy, Forestry, Land Conservation and Development, Geology and Mineral Industries, Agriculture, Economic Development, Parks, State Lands, Fish and Wildlife, Environmental Quality, the Public Utility Commission, Department of Transportation, State Economist, and Office of Emergency Management will be invited to participate. Collectively, participating state agencies representatives will make up the Staff Working Group. The Department of Energy has the responsibility for providing the lead on staffing and support for the Integration Group.
3. **Subcommittees.** The Co-Chairs will appoint subcommittees on adaptation, mitigation, and public education to assist the Integration Group. The Co-Chairs will draw on a wide range of expertise and interests for the subcommittees. Participation on the subcommittees will not be limited to members of the Integration Group.
4. **Task and Subcommittee Leadership.** Leadership for specific tasks will be assumed by interested stakeholders, who will work closely with and other stakeholders and agency representatives who have committed to assist with the task.
5. **Observers.** Other states and Canadian provinces may take part in meetings of the Integration Group and Staff Working Group and subcommittees as observers.

**Integration Group Decision-making**

The Integration Group will make decisions as much as possible by consensus of all members. Consensus for this purpose means that all members will agree to support the elements of the proposal and its implementation. It does not mean that they agree in each particular element that this is the very best design.

The reports of the Integration Group will review Oregon's accomplishments and challenges in achieving the recommendations of the 2004 Advisory Group and will recommend adaptation strategies for the state to the Governor. In the adaptation strategy, it will identify areas where there is uncertainty or where there is not consensus, but where there is significant support for certain elements of the proposal. It will explain the uncertainty or the concerns that prevent consensus on particular recommendations. The first report on adaptation strategies will focus on the major areas where the state is most vulnerable. Subsequent reports will go into greater depth and breadth. The reports will reflect the variety of opinions of the Integration Group and capture the levels of consensus.

Other decisions of the Integration Group, such as direction to the sub-committees, meeting planning and other organizational and logistical matters, will be made by a general sense of the Integration Group, with the decision delegated to the Co-Chairs.