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**Henry Lorenzen**  
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**Tom Karier**  
Washington

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Washington

August 30, 2012

## MEMORANDUM

**TO:** Council members

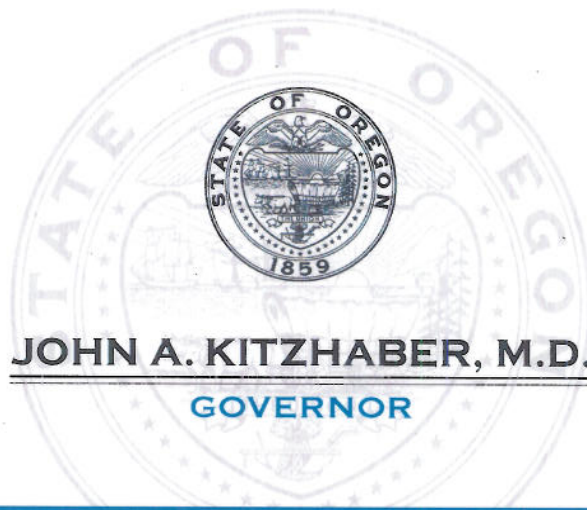
**FROM:** Leann Bleakney  
Oregon Office Power Policy Analyst

**SUBJECT:** Briefing on the State of Oregon's 10-Year Energy Plan

In October 2011, Oregon Governor John Kitzhaber appointed the Ten-Year Energy Action Plan Task Force, an advisory committee charged with making recommendations to the Governor on coordinated actions and initiatives that the State of Oregon can take in the next 10 years to:

- Reduce our dependence on carbon-intensive fuels and foreign oil,
- Develop home-grown renewable energy resources,
- Mitigate greenhouse gas emissions,
- Improve energy efficiency and create rewarding local jobs, and
- Boost Oregon's economy through investment and innovation.

On March 2, 2012, the Task Force submitted its recommendations to the Governor for his consideration. The executive summary of the 10-year energy plan is attached. A representative of the governor's Energy Action Plan Task Force will present a summary of the plan to the Council.



**JOHN A. KITZHABER, M.D.**  
**GOVERNOR**

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## Draft 10-Year Energy Action Plan



**JOHN A. KITZHABER, M.D.**  
**GOVERNOR**

Dear Oregon,

Energy is THE issue of our time – both globally and here in Oregon – and no single issue will have a greater impact on our state’s economy, environment and quality of life in the coming decade. The central question is whether we will shape our energy future through intentional investment and development, or whether it will shape us.

Oregon has a track record of successfully pursuing clean energy policy, programs and practices to reduce energy use and promote renewable alternatives to fossil fuels. These public and private initiatives have made Oregon a national leader, but we continue to face a fundamental challenge – that is, to develop a comprehensive energy strategy that meets the state’s carbon reduction, energy conservation and renewable energy goals and timetables, and that balances complex needs – including affordability and reliability – while enhancing Oregon’s economic objectives.

This 10-Year Energy Action Plan takes a practical approach to that challenge, focusing on specific initiatives that move the dial in the short term and can be scaled up over time. It is also an economic action plan, emphasizing priorities that can get Oregonians back to work on energy-related projects in urban and rural communities across the state.

**The 10-Year Energy Action Plan focuses on three core strategies:**

**1. Maximizing energy efficiency and conservation to meet 100 percent of new electricity load growth.**

Oregon ranks fourth in the nation in energy efficiency.<sup>1</sup> Since 1980, Oregon households and businesses have realized energy efficiency and conservation savings equivalent to eight to ten power plants. The result has been lower energy bills, a cleaner environment, and a thriving local energy service industry that exports its technology and expertise to the world. To build on this success, to capture deeper, harder-to-reach efficiency and conservation opportunities, and to scale them community-wide, will require new data, new financing tools, rate design changes and trained workers. The Northwest Power and Planning Council’s 6<sup>th</sup> Power Plan states that the region can meet 85 percent of new load growth through energy efficiency and conservation.<sup>2</sup> This plan calls for Oregon to meet all new electric load growth through energy efficiency and conservation. We will start at home. Every occupied state-owned building will establish baseline energy use, undergo an energy audit and identify cost-effective retrofits in the next ten years, improving the performance of up to four million square feet of identified office space and using the state as a market driver for greater energy efficiency and conservation projects.

**2. Enhancing clean energy infrastructure development by removing finance and regulatory barriers.<sup>3</sup>**

Since 2007, renewable energy development has resulted in more than \$5 billion investment in Oregon.<sup>4</sup> However, the state’s ability to attract new investment and pursue promising new technologies is hampered by three things: outdated and inadequate energy

<sup>1</sup> American Council for an Energy Efficiency Economy (ACEEE) 2011 State Scorecard

<sup>2</sup> Northwest Power and Conservation Council, *Sixth Northwest Power and Conservation Power Plan*, Feb. 2012.

<sup>3</sup> Or. Rev. Stat. § 468A

<sup>4</sup> Renewable Northwest Project, March 2011 release

transmission and infrastructure; inefficient and disjointed local, state and federal regulatory processes; and limited public resources. The plan calls for landscape level planning and streamlined permitting to give clean energy developers more certainty and predictability and to ensure the State's natural resources are protected. In addition, the plan calls for developing a new regional infrastructure bank to leverage public and private investment for infrastructure projects.

- 3. Accelerating the market transition to a more efficient, cleaner transportation system.** Transportation is the single largest contributor to Oregon's carbon emissions and a significant source of air toxics. Oregonians consume 1.5 billion gallons of gasoline and drive 39 billion miles every year. According to an analysis conducted by the Oregon Department of Energy from U.S. Census Bureau data, fuel costs average Oregonians nearly seven percent of disposable income; nearly double the cost ten years ago. This plan calls for focusing on achieving 20 percent conversion of large fleets to alternative fuel vehicles over the next ten years.

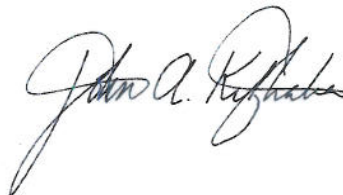
Each of these initiatives are discussed in detail in the chapters ahead and will involve bolstering existing programs, pursuing regulatory changes, and tapping opportunities for the state to be a market driver through creative finance, purchasing, planning and governance.

This plan is a central component of my strategy to position Oregon to be more competitive in the global economy of the 21st century. It provides a framework to move away from a boom/bust economic cycle that depletes our natural capital and leaves us vulnerable to fluctuations in global markets. This plan provides strategies to meld workforce development initiatives, higher education opportunities, and local job creation with clean energy priorities; spur investment while developing home-grown renewable energy resources; and keep capital circulating in our region through local sourcing and supply chains while reducing our dependence on carbon-intensive fuels and foreign oil.

Many of the proposed goals and action items in this plan are ambitious. For example, the goals of meeting new electric load growth with conservation and energy efficiency will be particularly challenging; as will be the effort to secure a new non-gas tax financing mechanism for multi-modal transportation infrastructure. I believe, however, that because the stakes are high for our state we must be bold in our vision and committed to a full and honest examination of these and other issues as we build the consensus necessary to secure our common future.

Finally, the 10-Year Energy Action Plan was created with input, advice and technical assistance of hundreds of Oregonians and organizations. A citizen task force met regularly for six months and made nearly 200 recommendations that have been synthesized and incorporated in the plan. I extend my sincere thanks to everyone who has participated in this process.

Sincerely,



John A. Kitzhaber, M.D.,  
Governor



## Introduction

In recent years, Oregon energy innovation, including electric and thermal, has contributed significantly to a decline in statewide energy consumption. From 2000 to 2010, electricity and natural gas use dropped.<sup>5</sup> Since 2002, Oregon's commitment to investing in energy efficiency through the Energy Trust of Oregon ("ETO") has resulted in cumulative savings of 322 average megawatts of electricity and 23.2 million annual therms of natural gas, reducing the costs to serve Oregon ratepayers by an estimated \$1.8 billion.<sup>6</sup> Since establishing the State's Renewable Portfolio, we are on track to meet approximately 25 percent of our energy needs through clean sources by 2025. This has resulted in local development of wind and other renewable resources, the sum total of which has resulted in over \$5 billion investment in Oregon since 2007.<sup>7</sup>

This leadership in energy did not happen by accident. It has been nearly 40 years since Governor Tom McCall established an emergency energy conservation program in the state and over 30 years since incentives and loan programs were created for residents and businesses to invest in renewable energy and energy efficiency. In between, an enormous amount of work has been done both in the public and private sectors, and many boards, commissions, agencies and other groups have furthered our understanding of clean energy opportunities. This current effort has the privilege of orienting toward specific action items informed by several extensive efforts over the past two years to analyze and diagnose various energy trends. In that short time, the Oregon Department of Energy ("ODOE") has produced the State's biennial energy plan; the Oregon Global Warming Commission ("OGWC") proffered its thorough "Roadmap to 2020"; and the Oregon Energy Planning Council ("OEPCC") produced its "Oregon Energy Planning Report."

The last report charted a useful framework for a statewide plan to be developed from its findings, and it noted the following priorities in such a plan:

Oregon's Department of Energy mission statement is to ensure that the state "...has an adequate supply of reliable and affordable energy and is safe from nuclear contamination, by helping Oregonians save energy, develop clean energy resources, promote renewable energy, and clean up nuclear waste." The Department is charged with developing and administering the state's energy programs and helping with the strategic planning to develop the state's future energy portfolio.

1. In addition to the Department's goals, the Council has agreed that the state's future energy strategy should include the following goals or principles:
2. Maintain affordable energy costs.
3. Assure a high level of regional and local system reliability.

<sup>5</sup> According to 2010 Oregon Utility Statistics, electricity use in Oregon peaked in 2000. Oregonians used 3.6 million megawatt hours of electricity less in 2010 than in 2000. Similarly, natural gas usage dropped by more than 200 million therms from 2008 to 2010.

<sup>6</sup> Energy Trust of Oregon 2011 Annual Report: [http://energytrust.org/About/PDF/AnnualReport\\_2011.pdf](http://energytrust.org/About/PDF/AnnualReport_2011.pdf)

<sup>7</sup> Renewable Northwest Project Economic Development Study:  
[http://rnp.org/sites/default/files/pdfs/OR\\_5\\_billion\\_2-page\\_11Mar23.pdf](http://rnp.org/sites/default/files/pdfs/OR_5_billion_2-page_11Mar23.pdf)



4. Promote a clean energy economy and jobs through new business and workforce development.
5. Meet state goals and commitments on greenhouse gas emission performance standards.
6. Meet state goals and commitments on developing renewable resources.
7. Ensure the health and welfare of Oregon's citizens.

This action plan essentially adopts these elements, with emphasis on strategies for implementing them, which are discussed below. The OEPC report also contained a number of recommendations on creating a comprehensive planning document, many of which have been incorporated herein.<sup>8</sup> As a matter of process, the members of Governor Kitzhaber's Task Force in the current effort were advised to consider the recent work of the noted groups and many others in developing recommendations.

The proximity in subject and time of so many different energy-related efforts in Oregon, while convenient for the purpose of cross-reference, also indicates that a review of the management of energy policy at the state level is well-timed, allowing for a more efficient use of resources for the purposes of planning, coordination and implementation. Such an analysis will be taken up in the section of this report regarding governance.

In drafting this report and its recommendations, the following themes have played a primary role:

### Jobs and the Economy

Oregon's innovative energy policy has made us a national leader in energy efficiency, renewable resource development, and clean energy job growth. Oregon ranks second in the nation in the clean-energy economy,<sup>9</sup> and is widely recognized for our supportive policies, significant technology deployment, and track record of attracting capital.

More than 22,900 Oregon businesses have invested nearly \$2.4 billion in energy efficiency, including lighting, heating, industrial processes, and other measures. In Energy Trust of Oregon territory alone, energy efficiency programs have saved approximately one billion dollars on program participant energy bills while creating an estimated 2,500 jobs and spurring \$90 million in wages and business income.<sup>10</sup> Nearly 425,000 people have installed energy efficient appliances in their homes, like refrigerators, dishwashers, and washing machines.<sup>11</sup> Energy efficiency and conservation programs have been instrumental in saving more than \$1 billion in cumulative energy costs.<sup>12</sup> And we have much more to do to acquire additional electric and gas savings, adding to these numbers and delivering still more benefits to the state.

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<sup>8</sup> Oregon Energy Planning Council, *Oregon Energy Planning Report*, Dec. 2010. The Council noted that future planning would require adequate resources, measurable benchmarks or criteria, public "buy-in", and significant leadership in managing competing interests.

<sup>9</sup> *State Clean Energy Leadership Index*, Clean Edge Inc.

<sup>10</sup> Energy Trust of Oregon, *2011 Annual Report*, [http://energytrust.org/About/PDF/AnnualReport\\_2011.pdf](http://energytrust.org/About/PDF/AnnualReport_2011.pdf)

<sup>11</sup> Oregon Department of Energy

<sup>12</sup> *2011 Annual Report to the Oregon Public Utility Commission*, Energy Trust of Oregon, April 16, 2012.



Businesses have invested more than \$5 billion in renewable energy in Oregon, including wind, solar, and geothermal development.<sup>13</sup> Statewide, 2,600 megawatts of operating renewable energy have been installed to date, enough to power 650,000 homes.<sup>14</sup> This development has strengthened Oregon's economy. For example, wind farms have produced about \$33.2 million for Sherman County alone from taxes, fees, and assessments.<sup>15</sup>

Vestas - the largest wind turbine manufacturer in the world - and Iberdrola Renewables - the second largest renewable power operator in the country - have both established their North American headquarters in Oregon. In addition, Oregon has become the U.S. solar manufacturing capital, employing 1,800 people in advanced manufacturing jobs at 12 manufacturing facilities.<sup>16</sup>

Ensuring a competitive advantage in Oregon for growing these industries includes a competitive regulatory environment (facility siting processes, as one example); targeted incentives (both financial and technical); a fertile research, development, and commercialization effort; and a ready workforce. Each of these elements will be addressed in this report.

### Affordable and Reliable Energy

Oregon's electric rates are among the lowest in the nation,<sup>17</sup> and natural gas and transport fuels are competitively priced and reliably delivered.

Maintaining affordable energy, especially in a predictable manner over the long-term, is essential to helping Oregon's businesses grow - particularly many of our manufacturing-based clusters - and keeping our citizens, especially our disadvantaged and low-income households, comfortable and safe.

Energy must remain accessible, in terms of the security of its supply and breadth of its delivery, for the state to thrive. And equity in the distribution of costs, benefits, and impacts must factor consistently, transparently, and justly into energy policy decisions.

Maintaining an up-to-date statewide energy action plan will further increase the reliability and predictability of energy service and costs for both businesses and consumers.

### Environmental and Quality of Life Values

Oregon is a diverse state, but residents share a deep appreciation for a strong quality of life, livable communities - both urban and rural - and a strong connection to the natural environment. Our energy future must improve our quality of life, make our communities healthier, determine the best use of natural resources, and protect farms, forests, water, and wildlife.

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<sup>13</sup> Renewable Northwest Project Economic Development Study, [http://rnp.org/sites/default/files/pdfs/OR\\_5\\_billion\\_2-page\\_11Mar23.pdf](http://rnp.org/sites/default/files/pdfs/OR_5_billion_2-page_11Mar23.pdf)

<sup>14</sup> Oregon Department of Energy

<sup>15</sup> Sherman County, Oregon

<sup>16</sup> Business Oregon

<sup>17</sup> *Sixth Northwest Power and Conservation Power Plan*, Northwest Power and Conservation Council, February 2012.



## Carbon Reduction and Other Greenhouse Gas Goals

As we make investments necessary to provide energy for the next generation of Oregonians, our most difficult energy challenge involves reducing greenhouse gas emissions, particularly energy-related carbon dioxide. If we make the wrong choices, future carbon regulation could force us to prematurely abandon those investments, costing Oregon dearly. If we choose wisely, Oregon will be well-positioned to compete, and even thrive, in an increasingly carbon-constrained world.

To this end, the Oregon State Legislature established greenhouse gas reduction goals for 2020 and 2050. Those goals are to reduce greenhouse gas emissions by 10 percent and at least 75 percent below 1990 levels, respectively.

Oregon has made significant progress toward reducing greenhouse gas emissions. For example, Portland General Electric has committed to end coal operations at its Boardman facility by 2020. Wind energy now contributes 4.4 percent of Oregon's electricity, up from less than one percent in 2004.<sup>18</sup> Distributed energy generation facilities provide local, homegrown energy for ratepayers. And significant investments have been made in energy efficiency.

As we look to the future, we need to continue to invest in demand management tools, energy efficiency, conservation and renewable energy to significantly ratchet down greenhouse gas emissions, particularly from coal. It is important to determine the appropriate and responsible role of natural gas. Efficient, state of the art natural gas transmission and generation emits 50 percent less greenhouse gas than burning coal. Natural gas also has the potential to serve as a firming resource for renewable energy projects and as a cheaper alternative fuel for vehicles. Converting electric heat for residential, commercial, and industrial customers to natural gas or bioenergy thermal heat technologies not only improves operating efficiency, it transitions consumers off of inefficient oil. Natural gas can serve as a critically important tool in reducing our state's dependence on coal and in helping Oregon meet our 2020 greenhouse gas reduction goals.

**This energy action plan will ensure that over the next decade we create an energy infrastructure that will enable us to thrive in a carbon-constrained future.**

<sup>18</sup> Oregon Department of Energy, [http://www.oregon.gov/ENERGY/RENEW/RPS\\_home.shtml](http://www.oregon.gov/ENERGY/RENEW/RPS_home.shtml)





## Process

In March 2010, then-gubernatorial candidate John Kitzhaber released an energy policy campaign paper that, among other things, called for “a strategic climate and energy roadmap that lays out the practical steps to meet and implement [our goals] ... ”<sup>19</sup> In order to fulfill that direction, in October 2011, Governor Kitzhaber appointed the Ten Year Energy Action Plan Task Force, an advisory committee generally charged with making recommendations on coordinated actions and initiatives that the State of Oregon can take in the next ten years to:

- Reduce our dependence on carbon-intensive fuels and foreign oil,
- Develop home-grown renewable energy resources,
- Mitigate greenhouse gas emissions,
- Improve energy efficiency and create rewarding local jobs, and
- Boost Oregon’s economy through investment and innovation.

These goals build upon ensuring a continued supply of affordable, reliable energy for our citizens and businesses.

## Structure

The Task Force was led by a Chair and three Vice-Chairs and organized into the following design teams:

- Energy Efficiency and Demand Management
- Resource Mix
- Siting
- Transportation Design
- Governance Design

Each design team was given a specific charge for its particular issue area and made recommendations to the Governor based on their specific charge.<sup>20</sup> This draft report presumptively accepts those recommendations, at least in concept, and silence herein on those specific recommendations does not suggest otherwise. Although not all recommendations will be ultimately accepted, they are expected to be part of the public dialogue over the next 90 days as this report moves to a final stage.

<sup>19</sup> Kitzhaber 2010, *Building a Clean Energy Future and Safeguarding Oregon’s Natural Environment*, Mar. 2010.

<sup>20</sup> [http://www.oregon.gov/energy/Pages/Ten\\_Year/Ten\\_Year\\_Energy\\_Plan.aspx](http://www.oregon.gov/energy/Pages/Ten_Year/Ten_Year_Energy_Plan.aspx)



## Timeline

Oct 2011 - Jan 2012	Design team work
Feb 2012	Integration team work
Mar 2012	Governor's office prepares document for stakeholder review
June 2012	Governor's office release Draft Ten Year Energy Action Plan
June - July 2012	Governor's office gathers public comments on Draft 10-Year Energy Action Plan
Fall 2012	Governor's office finalizes Ten Year Energy Action Plan

## Task Force Leadership

*Chair* Michael Jung, Silver Spring Networks

*Vice-Chairs* Andrea Durbin, Oregon Environmental Council

Roy Hemmingway, Energy consultant

Kevin Lynch, Iberdrola Renewables

*Governor's Coordinator* Karen Joyce, Governor's Interim Energy Policy Advisor

*Governor's Office* Curtis Robinhold, Chief of Staff

Cylvia Hayes, First Lady of Oregon

Scott Nelson, Jobs and Economy Policy Advisor

Richard Whitman, Natural Resources Policy Advisor

Lynn Peterson, Sustainable Communities & Transportation Policy Advisor

Greg Wolf, Intergovernmental Relations & Regional Solutions Advisor

Dan Carol, Director of Multi-State Issues

*Staff:* Diana Enright, Oregon Department of Energy

*Staff:* Matt Hale, Oregon Department of Energy

## Design Team Members

### Governance

Andrea Durbin, Oregon Environmental Council

Roy Hemmingway, Energy consultant

Kevin Lynch, Iberdrola Renewables

### Energy Efficiency and Demand Management (EEDM)

*Chair:* Susan Ackerman, Public Utility Commission



Roger Gray, Eugene Water and Electric Board  
Jeff Harris, Northwest Energy Efficiency Alliance  
Margie Harris, Energy Trust of Oregon  
Marty Sedler, Intel Corporation  
Derek Smith, Clean Energy Works Oregon  
Phil Welker, Portland Energy Conservation Institute  
*Staff: Theresa Gibney, ODOE*  
*Staff: Vijay Satyal, ODOE*

**Resource Mix**

**Chair:** Rachel Shimshak, Renewable Northwest Project  
Bill Edmonds, NW Natural  
Bob Jenks, Citizens Utility Board  
John Mohlis, OR State Bldg & Construction Trade Council  
Dave Robertson, Portland General Electric  
Whitney Rideout, Oregon Association of Nurseries  
John Savage, Public Utility Commission  
*Staff: Rebecca Sherman O'Neil, ODOE*  
*Staff: Tom Stoops, ODOE*

**Siting**

**Chair:** David Stewart Smith, Pacific Energy Systems  
Scott Bolton, PacifiCorp  
Mark Brown, Bureau of Land Management  
Dan Erickson, fmr. Wasco County Commissioner  
Karen Green, fmr Chair, Energy Facilities Siting Council  
Margaret Kirkpatrick, NW Natural  
Monty Knudsen, US Fish and Wildlife Service  
Tamra Mabbott, Umatilla County  
Bruce Taylor, Defenders of Wildlife  
Chris Taylor, Element Power  
*Staff: Hillary Dobson, ODOE*  
*Staff: Todd Cornett, ODOE*

**Transportation**

**Chair:** Jon Ruiz, City of Eugene  
Charlie Allcock, Portland General Electric  
Angus Duncan, Bonneville Environmental Foundation  
Neil McFarlane, Trimet



David Patterson, Mitsubishi Motors  
Derek Rotz, Daimler Trucks North America  
Barry Woods, Drive Oregon  
Jeff Hammarland, Portland State University  
*Staff: Bob Cortright, DLCD*  
*Staff: Travis Brouwer, ODOT*  
*Staff: Bill Drumheller, ODOE*  
*Staff: Rick Wallace, ODOE*

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**How to Get Involved**

Upon release of this report, a public process for submission of comments will commence and continue through July 31, 2012. Comments can be sent to [tenyearenergyplan@odoe.state.or.us](mailto:tenyearenergyplan@odoe.state.or.us).

In addition, three public meetings will be held throughout the state. Please visit the [10-Year Energy Plan web site](#) to sign up for email alerts and for updated information on meeting times and locations.

After gathering public comments and further engaging stakeholders, the plan will be finalized later this year.