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Executive Summary

Energy Planning and Innovation (P&I) is one of five divisions within the Oregon Department of Energy (ODOE). P&I develops and recommends energy policy in partnership with other ODOE divisions and stakeholders and implements energy programs authorized by the Oregon State Legislature. The P&I Strategic Framework provides a guide to ensure the division supports ODOE's mission and energy leadership, helps achieve the state's energy goals in collaboration with stakeholders, and contributes to the agency fulfilling ongoing responsibilities as described in statute. This framework also provides information on our activities and priorities.

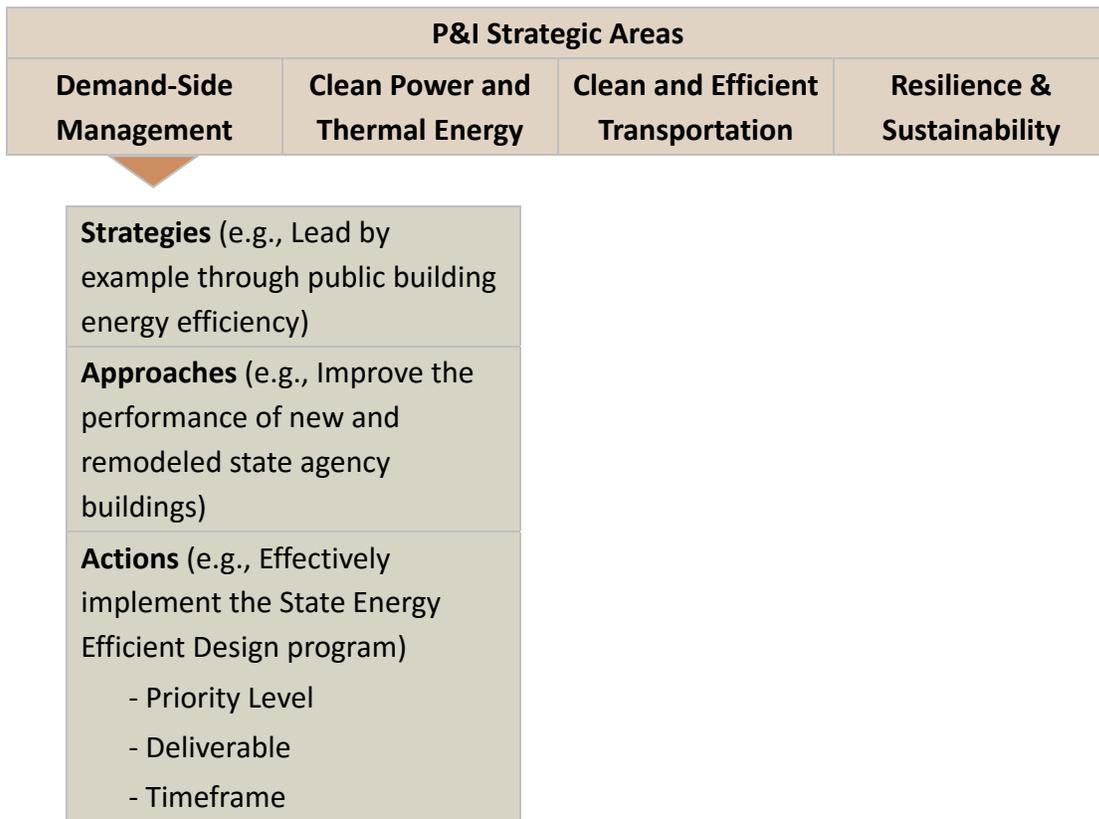
The P&I Strategic Framework is organized into four core strategic areas and reflects a systems approach that considers the interactive and interdependent nature of the energy strategies in each area and between areas. Within each of the core areas, we have identified a set of specific strategies to help achieve the state's energy goals:

- **Demand-Side Management:** Advance efforts to use energy more efficiently, reduce energy use and shift energy use off peak. Specific strategies are:
 1. Lead by example through public building energy efficiency
 2. Strengthen the residential and commercial energy efficiency market
 3. Reduce the cost of energy for the industrial and agricultural sectors
 4. Advance total system benefits of demand-side management
- **Clean Power and Thermal Energy:** Enable the responsible development of Oregon's energy resources, advance clean energy projects, and improve the performance of transmission and distribution systems. Specific strategies are:
 1. Enable a future electricity energy mix that will achieve Oregon's energy goals
 2. Reduce the cost of integrating clean energy resources
 3. Improve performance of the transmission and distribution system
 4. Develop a thermal energy framework that will help achieve Oregon's energy goals
- **Clean and Efficient Transportation:** Increase demand for alternative transportation fuels and advance projects to expand supply and infrastructure of alternative transportation fuels. Specific strategies are:
 1. Diversify the transportation fuel mix
 2. Increase in-state alternative fuel production
 3. Reduce fuel use in the transportation sector
 4. Align regional, state and local transportation activities
 5. Identify barriers and opportunities to advance alternative fuel transportation infrastructure

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- **Resiliency and Sustainability:** Evaluate future energy system needs in light of global climate change and natural disasters and conduct long term energy planning. Specific strategies are:
 1. Improve the resiliency of Oregon’s energy system
 2. Assess potential climate change mitigation strategies
 3. Incorporate analysis of climate co-benefits in energy planning and program development
 4. Conduct long-term energy planning

We will implement these strategies through specific approaches and actions to be developed in consultation with stakeholders and reflected in staff work plans. To make best use of our limited resources, each action will be assigned a priority level (low, medium, or high) and will have a clear deliverable and time frame. This relationship is outlined in the figure below.



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Implementation of this Strategic Framework will require individual staff efforts, internal P&I team partnerships, agency-wide cooperation, and collaboration among ODOE and stakeholders. We will work with the Governor's Office and other agencies to ensure that the approaches and actions taken under this framework are consistent with – and complementary to – statewide priorities and multi-agency strategies and initiatives.

We will track framework outputs based on completion of deliverables as well as Oregon's energy outcomes based on a variety of high-level indicators. The 2015-2019 Strategic Framework is designed to be adaptable to a rapidly changing policy environment. Measuring results will enable us to make adjustments and will inform future planning efforts within the division and for ODOE overall. Engagement, collaboration, and overall transparency with stakeholders and partners throughout the evolution and implementation of the framework will be critical to our success.

P&I STRATEGIC FRAMEWORK: 2015-2019

Introduction

This Strategic Framework will guide the work of the Energy Planning and Innovation Division of the Oregon Department of Energy (ODOE) during fiscal years 2015-2019 as we:

- Support ODOE's mission of leading Oregon to a safe, clean, and sustainable energy future;
- Help achieve the state's energy goals to promote the efficient use of energy resources, develop sustainable energy resources and reduce greenhouse gas emissions; and
- Fulfill our statutory and programmatic responsibilities.

This document describes the Strategic Framework's purpose and context and provides an overview of the strategic areas we will address over the 2015-2019 planning period. It is intended to communicate our overall focus to provide transparency about what we do and enable us to allocate our limited resources to the highest priority work. We envision this framework leading to subsequent planning efforts that build on our experiences and achievements during this planning period.

This Strategic Framework charts a course for us that:

- Provides policy leadership to keep Oregon on the cutting edge of energy sector innovation, collaborating with stakeholders to leverage our technical expertise as reflected in the development of white papers, pilot projects, program improvements, rule revisions and legislative proposals;
- Directly impacts energy conservation and the state's energy resource mix through implementation of our programs and initiatives, such as the State Energy Efficient Design (SEED) program, the Energy Efficient Schools Program, combined heat and power pilots, and others;
- Strengthens partnerships within the department and with key external stakeholders to help meet state goals.

This is a forward-looking framework in a rapidly changing policy environment. We will need to be nimble and flexible to adjust our efforts over the planning horizon while staying focused on achieving the state's energy goals over the long term. We will measure our performance in implementing the framework and track a variety of indicators of progress toward meeting the state's energy goals. A key outcome of the five years of work will be an analysis of progress to date from which to develop future goals and plans.

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Implementation of the P&I Strategic Framework involves individuals and teams working together within P&I and with other ODOE divisions, other agencies and stakeholders. It may involve different types of work and coordination across programs and areas of staff expertise. The framework is focused on interconnected energy systems; therefore, staff designated as the agency expert for one energy technology or system will have the opportunity to work in additional areas. In addition to enabling our work to be more strategic, this approach will build capacity within our division.

In order to implement the Strategic Framework, we will need to involve and problem-solve with partners and all interested stakeholders as specific policies, programs, and products are developed. In particular, we will take the needs of Oregon's energy suppliers into consideration as we put this framework into action.

Overall, the intended outcome of this framework is a well-organized and well-resourced division with established priorities that meet the agency's many obligations and maximize our contribution to Oregon's energy future.

Strategic Framework Foundations

The Strategic Framework is built on two inter-related and complementary foundations that guide our overall direction and strategy: 1) ODOE's mission and 2) ODOE's statutory and programmatic responsibilities.

ODOE Mission

ODOE's mission is "leading Oregon to a safe, clean, and sustainable energy future." We contribute to this mission through our dual focus on:

- **Energy efficiency and use**, which emphasizes maximizing the deployment of cost-effective energy efficiency and shifting energy load to times of the day when there is lower demand. Energy efficiency is Oregon's least-cost energy resource, and it supports a safe, clean and sustainable energy future by allowing Oregon to get more end-use from a unit of energy, resulting in lower costs to consumers and less impact on the environment. Work in this area encompasses the implementation of energy efficiency programs such as SEED and the Energy Efficient Schools Program. It also encompasses policy leadership to strengthen energy efficiency markets and influence the amount and timing of energy use within the state.
- **Energy resource mix**, which involves development of energy supplies that support the growth of Oregon's renewable and alternative energy resources. A cleaner energy mix supports a safe, clean and sustainable energy future by creating demand for in-state energy resources, supporting community development goals, and reducing emissions. Our work in this area focuses on fostering innovation in the supply, infrastructure, delivery and use of a variety of types of clean energy for electricity, heating, and transportation.

ODOE Statutory and Programmatic Responsibilities

The Strategic Framework also addresses our statutory and programmatic responsibilities. These include:

Energy Efficiency and Conservation

- Implementing energy efficiency standards and conservation and energy efficiency programs for state and public buildings (ORS 469.229 through 469.261, 469.700 through 469.756 and 276.900 through 276.915).
- Implementing school energy efficiency programs (ORS 757.612 and 470.800 through 470.815).

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- Developing and supporting advancement of energy codes (ORS 455.492 and ORS 455.511).
- Supporting energy conservation in commercial buildings (ORS 469.880 through 469.900),
- Administering the industrial self-direction program under the SB 1149 public purpose charge (ORS 757.600 through 757.687).
- Managing energy performance score standards for residential and commercial buildings (ORS 469.703 and Oregon Laws 2009, Chapter 750).

Renewable and Alternative Energy

- Certifying resources eligible for Oregon's Renewable Portfolio Standard and acting as the Oregon program administrator for the Western Renewable Energy Generation Information System (ORS 469A.005 through 469A.300).
- Working to increase renewable energy development in Oregon, such as forest products and biomass energy, solar energy, geothermal, and wave energy (ORS 526.274, 526.280, 526.786, 279C.527 through 279C.528, 215.044 and 227.190, and ORS 552.125 and ORS 543.017).
- Contributing to the implementation of Oregon's Renewable Fuel Standard (ORS 646.905 through 646.923).
- Advancing clean transportation efforts, such as the Oregon Sustainable Transportation Initiative (ORS 184.886 and ORS 267.030).

Other Statutory and Programmatic Responsibilities

- Supporting development of the Biennial Energy Plan and undertaking related forecasting (ORS 469.060 and 469.070).
- Contributing to statewide greenhouse gas emissions reduction efforts, including leveraging state and regional energy programs (ORS 468A.220 through 468A.250 and 757.522 through 757.538).
- Participating in other agency proceedings, as appropriate and after notification required under HB 2807 (2013), to describe the effect of agency's action on the state's energy resources and energy policy (ORS 469.110).

See Appendix for a listing of our enabling legislation/program authorization.

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These statutory and programmatic responsibilities contribute to achievement of state energy goals by:

- Directly influencing energy efficiency in the public sector as well as contributing to residential, commercial, and industrial energy efficiency.
- Maximizing the impact of Oregon's renewable energy and energy efficiency programs.
- Effectively implementing grant-funded and pilot programs.
- Ensuring strong customer service, stakeholder relationships, and effective partnerships.

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Five-Year Strategies

We will contribute to fulfilling ODOE’s mission, achieving state energy goals, and satisfying statutory and programmatic responsibilities during fiscal years 2015-2019 through the strategies described below. While we have unique roles in addressing these strategies, we will work with internal and external partners taking complementary actions. We will take action under these strategies in a fiscally responsible manner, being mindful of the costs and benefits to ODOE and stakeholders. In addition, we will strive to conduct our work in ways that provide significant co-benefits beyond energy, such as economic and community development, and improvements to the environment and quality of life.

For each strategy, the framework identifies indicators that will be measured and tracked to assess the effects of strategy implementation. Indicators are described in more detail in a later section of this framework.

The P&I Strategic Framework groups strategies into four areas:

- Demand-Side Management
- Clean Power and Thermal Energy
- Clean and Efficient Transportation
- Resiliency and Sustainability

The strategies are interactive and interdependent, and make progress toward the state energy goals as illustrated below.

Relationship of Strategic Areas to State Energy Goals

State Energy Goals	Demand-Side Management	Clean Power and Thermal Energy	Clean and Efficient Transportation	Resiliency and Sustainability
1. Promote efficient use of energy resources (ORS 469.010).	X		X	
2. Develop permanently sustainable energy resources (ORS 469.010).		X	X	
3. Reduce greenhouse gas emissions (ORS 468A.205).	X	X	X	X

STRATEGIC AREA 1: DEMAND-SIDE MANAGEMENT

The P&I Division, in concert with ODOE's Energy Development Services Division, leads state efforts to cost-effectively improve the energy efficiency of schools and public buildings. Energy efficiency retrofits not only help conserve energy resources, they reduce energy costs, improve comfort and create jobs that cannot be outsourced. We also provide tools and technical assistance to reduce energy use in the residential, commercial, industrial and agricultural sectors.

The framework includes four strategies to support and advance demand-side management for electric and thermal energy.

1. Lead by example through public building energy efficiency

The State Energy Efficient Design (SEED) program directs state agencies to ensure that cost-effective energy conservation measures are included in new and renovated state owned buildings. We will continue to implement the SEED program to help agencies comply with energy design requirements of ORS 276.915, including the requirement that all state facilities constructed on or after June 30, 2001 exceed the energy conservation provisions of the Oregon State building code by at least 20 percent. We will help agencies collect baseline data on state building energy use, improve data management through the use of Energy Star's Portfolio Manager®, design a process to phase-in energy efficiency improvements in state buildings, and communicate success stories and replicable strategies to other sectors. Further, we will research the feasibility of designing new state buildings to be net-zero ready (i.e. designed with low energy loads that can be met by the addition of on-site renewable energy technologies).

Also under this strategy, we will continue to focus on improving the performance of school buildings through implementation of the Energy Efficient Schools Program. We will build on lessons learned from the Cool Schools pilot program and work with school districts to find the right combination of assistance and resources to help projects move forward. For example, in the final phase of the pilot in early 2015, we provided grant funding for schools in Lane, Union, Grant, Wasco, and Jackson counties to help schools upgrade heating and water heating systems, retrofit lighting, and replace inefficient windows.

2. Strengthen the residential and commercial energy efficiency market

This strategy began with a rulemaking to implement HB 2801 (2013) criteria for residential and commercial building performance scoring systems that value energy efficiency in buildings. These systems provide information to prospective home buyers and to home owners considering efficiency improvements. We are working with a stakeholder panel to implement the new rules and with USDOE national laboratories to improve home energy scoring practices.

In conjunction with the Energy Development Services Division, this strategy looks at ways to optimize responsible implementation of the Residential Energy Tax Credit program, assess gaps in public sector energy efficiency financing and evaluate options for new financing tools. This cross-divisional effort may lead to strengthening existing tools and proposing new financing and business models for implementing energy efficiency projects.

A third element of this strategy is to work with partners to advance residential and commercial energy codes and standards. We will work with the Building Codes Division and stakeholders to develop new reach code components in accordance with ORS 455.500 and a long-term strategy to move towards a net-zero energy code. We will also continue advancing appliance standard improvements together with California and Washington.

3. Reduce the cost of energy for the industrial and agricultural sectors

An essential element of this strategy is to build on our successful pilot work to design and implement a combined heat and power program. This has begun with an assessment of the technical and economic potential for CHP in Oregon and may continue with an identification of barriers, solutions and goals for CHP. In addition, we are reviewing past work for lessons learned.

While exploring appropriate opportunities for CHP, we are also working to optimize implementation of existing industrial energy efficiency programs. This includes assessing options to better align the self-direct program with energy priorities, working with the Oregon Industrial Collaborative on industrial energy efficiency incentives and programs, evaluating opportunities to expand technical support, and assessing gaps in industrial energy efficiency programs.

In addition to support for industrial energy efficiency, this strategy includes an evaluation of energy efficiency opportunities in the agricultural sector. For example, we may develop an energy use and opportunities profile for Oregon's agriculture sector along with recommendations to maximize energy efficiency and conservation.

4. Advance total system benefits of demand-side management

This strategy includes research and analysis to inform future policy development. We will work with stakeholders to research the effect of existing regulatory models on energy efficiency investments, opportunities for integrating energy efficiency into peak reduction strategies and parity of energy efficiency investments for rural and low-income Oregonians. This also includes assessing barriers to increased participation in demand response and dynamic pricing programs, investigating options to address these barriers, and implementing pilots to test demand response capabilities in various markets.

This strategy may also include working with other agencies to support policy development for low-income weatherization programs and water conservation efforts. Finally, this strategy includes collaborating with the Public Utility Commission to meet statutory reporting requirements for the public purpose charge program.

STRATEGIC AREA 2: CLEAN POWER AND THERMAL ENERGY

We implement laws and develop policies to enable the responsible development of Oregon's diverse energy resources for electricity and thermal needs. We will advance pilot projects such as energy storage to maximize the integration and use of more clean energy to produce Oregon's electricity. We also will play a role in evaluating barriers and opportunities to improve the performance of transmission and distribution systems.

The framework includes four strategies to support alignment of electric and thermal energy systems with Oregon's energy goals.

1. Enable a future electricity energy mix that will achieve Oregon's energy goals

This strategy includes research and analysis on trends, emerging technologies, barriers and opportunities in renewable energy to inform the state as to how we can most cost-effectively meet our energy goals. We will evaluate barriers and track progress toward meeting the state's eight percent community renewables goal in ORS 469A. We also will assess the feasibility of expanding renewables in a variety of sectors such as marine transmission, offshore wind, food processing, water treatment and irrigation.

We will continue to play a role in administering the Renewable Portfolio Standard, which set the utility resource mix standard, and the 1.5% for Green Energy Technology program, which requires new and modified public buildings to install solar or geothermal projects. We will assess our implementation of these programs and make adjustments as necessary.

We will continue to collaborate with ODOE's Energy Development Services (EDS) division to optimize incentives for renewable energy to achieve our energy goals. For example, we provided technical support for EDS in updating the Residential Energy Tax credit program incentives for solar energy and we collaborated with EDS in developing a legislative proposal that was intended to pilot a new production incentive for bioenergy. In addition, we will continue to work with Regional Solutions Teams to support community initiatives, including projects that develop renewable energy resources. For example, we are working through Regional Solutions with the City of Prineville to support efforts to develop renewable energy resources that will help meet the growing loads associated with server farms.

Another element of this strategy is to conduct basic research that can inform long-term policy choices about how renewable energy can support Oregon's energy goals. For example, we will evaluate potential co-benefits of renewable energy and distributed generation – such as reduced emissions, reduced transmission impacts and increased system reliability – for consideration in electricity decision-making. We also plan to research barriers and opportunities for a variety of renewable energy scenarios that could help achieve Oregon's energy goals.

2. Reduce the cost of integrating clean energy resources

This strategy includes an assessment of techniques and activities currently used in Oregon to integrate renewable resources and identify potential opportunities for improvement. This also includes support for northwest and western states planning and coordination efforts to reduce integration costs through targeted participation in committees of the Northwest Power and Conservation Council (NWPCC) and the Western Electricity Coordinating Council (WECC).

This strategy also includes advancing energy storage in Oregon as a tool to support integration of renewables as well as grid resilience. This began with a workshop held in

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March 2014 during which stakeholders identified barriers and opportunities. We are following-up on the workshop recommendations and pursuing energy storage pilots in Oregon.

3. Improve performance of the transmission and distribution system

While our role in transmission and distribution is limited, we plan to work with internal and external stakeholders to conduct targeted research and analysis of options, such as smart grid development, to support integration of variable energy resources, distributed generation and demand response. This also includes engagement and technical support for revisions to codes and standards that govern interconnection.

We also are working to reduce soft costs (e.g., incentive applications, permitting, inspection, and interconnection) for renewable energy projects. This includes identifying and tracking soft costs, conducting workshops on efficiently connecting solar energy to the grid and conducting pilot projects to lower soft costs. For example, together with ODOE's EDS division, we utilized a federal grant to deploy an online tool to integrate applications for the Residential Energy Tax Credit and Energy Trust of Oregon incentives for solar photovoltaics.

4. Develop a thermal energy framework that will help achieve Oregon's energy goals

While thermal energy accounts for more than a fourth of the energy used in the state, thermal energy policy lags behind policy in the electricity sector. This strategy focuses on assessing current thermal energy use and market structures. Likely first steps include completing a baseline assessment of thermal energy use, developing an approach to track trends over time, and evaluating the market potential for local thermal resources, such as bioenergy, geothermal and solar resources. We would then be prepared to analyze and recommend thermal energy policies that support Oregon's energy goals, including policies that can encourage renewable thermal energy such as combined heat and power systems and district energy systems. In addition, we will assess the costs and benefits of a voluntary thermal energy registry to document the value of renewable thermal energy and we will work with other agencies (e.g., Oregon Department of Environmental Quality (DEQ), Oregon Housing and Community Services (OHCS), Oregon Department of Forestry (ODF)) to coordinate and integrate thermal energy policy with air quality, housing, forestry and other state interests.

STRATEGIC AREA 3: CLEAN AND EFFICIENT TRANSPORTATION

In addition to reducing greenhouse gas emissions, alternative transportation fuels are often lower cost than traditional gasoline and diesel. Building out alternative fuel infrastructure would provide options for motorists while benefiting the Oregon economy through construction and operation of in-state fuel production and processing facilities. We help fleet managers transition to alternative fuels (e.g., locally produced biofuels, electricity and renewable natural gas) and advance projects to expand the supply and infrastructure for delivering alternative transportation fuels to customers. We also help integrate energy policy with transportation and environmental policy.

The framework includes five strategies to improve efficiency and expand the use of alternative fuels in the transportation sector.

1. Diversify the transportation fuel mix

This strategy includes research and analysis of market barriers and opportunities to expand the use of alternate fuels in vehicles. We will assess factors that influence the effectiveness of the Renewable Fuels Standard, including the blend wall and eligible fuels. In addition, we will evaluate the effect of maximum vehicle weight limits on installing alternative fuel equipment on trucks.

We are also working with operators of large fleets to increase their use of alternative transportation fuels. For example, we helped the Portland Parks and Recreation Department receive approval for an alternative fuel vehicle project by analyzing the project's costs, emissions reductions, vehicle technology and fueling infrastructure. We are developing a baseline of fuel use data for large fleets, and we are profiling individual business champions to encourage other businesses to access our fleet program and expand their use of alternative fuels. In addition, we will develop policy options to address barriers to broader use of alternative fuels by large fleets.

2. Increase in-state alternative fuel production

We will approach this strategy by examining Oregon's existing biofuel production facilities to identify successes, challenges, and market conditions.

3. Reduce fuel use in the transportation sector

To implement this strategy, we will work with DEQ, the Oregon Department of Transportation (ODOT) and other state agencies to evaluate opportunities for, and barriers to, policies that reduce fuel use, such as vehicle idling policies and pay-as-you-drive insurance. Another potential action under this strategy is to work with ODOT and the Department of Land Conservation and Development (DLCD) to develop a Transportation Growth Management curriculum that focuses on transportation efficiency efforts in Metropolitan Planning Organization Areas.

4. Align regional, state and local transportation activities

Numerous regional, state and local agencies and partnerships have important roles in transportation policy, and we will integrate our transportation energy work with their efforts. Where our expertise adds value, we will actively participate in cross-agency working groups such as Energize Oregon, the ZEV MOU Interagency Workgroup, the Statewide Transportation Strategy Modeling Steering Committee, Clean Cities Coalitions and the Pacific Coast Collaborative. We will provide technical support to other agencies (e.g., ODOT, DLCD, DEQ, and DAS) developing transportation policies, and we will provide up-to-date information about Oregon's transportation and energy policy initiatives on our web site. In addition, we will collaborate with the EDS division and other agencies to optimize delivery of incentive programs that support transportation fuel policy.

5. Identify barriers and opportunities to advance alternative fuel transportation infrastructure

We will assess opportunities for synergies between the transportation and electric sectors, including the interaction of policies and regulations in these sectors, the impact of changes in the transportation market on the energy mix, and the energy storage value of electric vehicle batteries. We will also assess and recommend options to coordinate electric vehicle infrastructure development and smart grid.

This strategy also includes analysis of barriers and opportunities to expand end-user access to alternate transportation fuels. We will evaluate how vehicle charging approaches affect the electric vehicle market and work with DAS to implement Oregon law allowing state agencies to install and recover costs for public electric vehicle

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charging stations. We will also research the potential for onsite mixing tanks to further renewable fuel availability, overall market trends, and technical challenges to deploying hydrogen as a transportation fuel.

STRATEGIC AREA 4: RESILIENCY AND SUSTAINABILITY

We evaluate future energy system needs to prepare for global climate change and natural disasters (e.g., earthquakes, flooding, drought) in conjunction with ODOE's Nuclear Safety and Emergency Preparedness division and the Governor's Office. We assess potential strategies to further reduce carbon emissions from Oregon's energy use and provide technical support for state and regional energy planning and regulation.

The framework includes four strategies to advance the resiliency and sustainability of Oregon's energy systems.

1. Improve the resiliency of Oregon's energy system

This strategy will build on the work already underway by the Nuclear Safety and Emergency Preparedness Division and the recommendations of the Oregon Energy Assurance Plan. In conjunction with other ODOE divisions and stakeholders, we hope to conduct an assessment of the risks and anticipated severity of various high and low likelihood disruption events on energy systems, including risks of climate change, severe weather, earthquakes and other natural disasters. This assessment would be similar to recent assessments by the City of Portland and Multnomah County. Based on the assessment, we would then make recommendations for next steps in concert with the recommendations from the Oregon Resilience Plan and related efforts.

We will support and encourage emphasis on energy resiliency in regional and utility resource planning processes and we will support sectors and projects with resiliency co-benefits, including distributed generation, coastal generation and energy storage. We will seek grant funding to investigate the potential for in-state biofuel production facilities to provide backup transportation fuel in the event of fuel delivery system disruptions as recommended in Oregon's Energy Assurance Plan. In addition, this strategy may also include working with the Water Resources Department to assess options for reducing water supply risk to energy systems.

2. Assess potential climate change mitigation strategies

We will collaborate with other agencies (e.g., DEQ, ODOT) to report on historical greenhouse gas emissions and forecast future emissions. Based on these forecasts, we

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will assess the effectiveness of existing programs to meet the state's greenhouse gas reduction goals. We will also work with DEQ and the Oregon Global Warming Commission (OGWC) to assess and recommend options for tracking progress during the 2020 to 2050 timeframe.

We will build on our past work with the Marginal Abatement Cost Curve analysis to support climate policy planning. This work will be designed to provide policymakers with a means of weighing emission reduction measures against each other across sectors considering their potential greenhouse gas emission reductions along with their costs and co-benefits. In addition, we will continue to provide staff support to the OGWC and technical support to state efforts to assess various greenhouse gas emission reduction strategies.

3. Incorporate analysis of climate co-benefits in energy planning and program development

A major element of this strategy will be collaborating with the Public Utility Commission to support the DEQ's development of a state plan to reduce carbon dioxide emissions from existing power plants as required under Section 111(d) of the Clean Air Act.

In addition, we will seek to integrate carbon policy assessment and development work with ongoing energy policy work in Oregon and the region. This includes providing support for the Pacific Coast Collaborative and engaging in the development of the Northwest Power and Conservation Council's 7th Power Plan. We will engage in carbon policy work underway by the Public Utility Commission (e.g., SB 101 report, SB 844 rulemaking, integrated resource plans and other proceedings) and provide technical support for the Energy Facility Siting Council's implementation of the carbon dioxide standard for new power plants.

4. Conduct long term energy planning

This strategy involves tracking progress in implementing the Strategic Framework by measuring identified indicators. Based on this tracking, we plan to develop a second five-year Strategic Framework in 2019. In addition, we will help prepare the Biennial Energy Plan per ORS 469.060 and evaluate agency data management systems.

Putting the Strategic Framework into Action

We will implement the Strategic Framework through:

- Internal and external stakeholder engagement.
- A planning process to prioritize and operationalize work, ensure accountability for delivery of results, and provide staff with the training and support needed to be effective.
- Close coordination with ODOE leadership and other ODOE divisions.
- Measurement of indicators that reflect the effectiveness of our strategies, and of our implementation of actions under the framework.
- Assessment of our existing programs to foster continuous improvements in implementation.

Each of these areas is described below.

STAKEHOLDER ENGAGEMENT

We recognize that a significant amount of our work and effectiveness relates to establishing, sustaining, and leveraging strategic relationships with internal and external individuals and organizations. We will seek input from stakeholders as we design and prioritize approaches and actions to accomplish the strategies identified in the framework. As we undertake actions under the framework, we will strive to effectively collaborate, align, and communicate with all affected and interested stakeholders.

WORK PLANNING PROCESS

To ensure that we stay focused on the strategies described in this framework, each strategy will be implemented through several approaches and actions, and reflected in staff work plans. *Approaches* describe the specific ways in which we will implement the strategies (e.g., improving the performance of buildings, diversifying the mix of energy sources, enabling clean fuel infrastructure development); several approaches may be used for each strategy. We will flesh out these approaches in coordination with stakeholders, implement them in a fiscally responsible manner, and seek to maximize their energy and non-energy co-benefits (e.g., jobs and economy, affordable and reliable energy, resilient energy systems, protection of natural resources, and greenhouse gas reductions).

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Actions are specific, measurable activities undertaken by division staff to implement an approach (e.g., providing technical assistance, holding a workshop, developing a report, implementing a program). Each action will be accompanied by information about:

- **Priority.** We will prioritize actions as high, medium, or low based on the following guidelines:
 - **High:** An action will receive high priority if it is critical to accomplish in the 2015-2019 planning period to lay the groundwork for long-term success of the Strategic Framework and is important enough to shift resources to accomplish. An action will also be designated as high priority if we are required or expected to complete it by statute, direction from the governor or legislature, rules, or judicial decision.
 - **Medium:** An action will be given a medium priority if it is important for long-term success of the Strategic Framework, but the timing and level of effort could be adjusted to pursue higher priorities.
 - **Low:** An action that is desirable but not critical for the success of the Strategic Framework or the state's energy goals will be designated as low priority. It can be done if time and resources allow.
- **Deliverables.** These are the specific outputs or activities that will result from each action, such as reports, recommendations, white papers, technical assistance, pilots, or other products.
- **Timeframes.** These will reflect when deliverables will be completed.

Specific actions will be incorporated into individual P&I staff work plans. These work plans will clearly illustrate the connections of each of our staff member's work to the framework's strategic areas. Work plans will describe the actions and associated priorities, deliverables, and timeframes described above. We will check in regularly on progress and to identify needs for support or training.

The work plans will reflect a matrix approach to strategy implementation, where any given staff member may be working as part of several internal teams and may be involved in various aspects of program delivery, policy leadership and building and sustaining strategic relationships.

COORDINATION WITH ODOE LEADERSHIP AND OTHER DIVISIONS

The following coordinating activities are critical to success at all stages of framework implementation:

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- Management support to provide necessary approvals, resources and information. We will inform and consult with agency management as we implement the Strategic Framework, and we will ensure that our actions are consistent with agency policy and that engagement with other agencies is at the direction of the director.
- A continuous improvement culture emphasizing a team approach that leverages the unique contributions of all team members, encompassing technical expertise, communications, relationships and strategy. We will model this approach in our interactions with internal and external stakeholders.
- Collaboration with other agency resources including information technology, communications, government relations, contracting, budgeting, accounting and facilities. We will inform and engage staff who provide these foundational functions as we implement this framework to seek their input and guidance while being respectful of their workloads.

MEASUREMENT

Measuring Progress toward State Goals

This Strategic Framework calls on us to measure overall state progress toward state energy goals to inform future updates to the strategies and approaches. The initial focus will be on developing metrics for measurement and establishing baseline conditions.

To fulfill this responsibility for measurement and strategy development, we will:

- Develop data collection, quality control, analysis and management processes;
- Establish a benchmarking system against which progress toward the goals can be measured; and
- Identify potential strategies and actions for the next five-year framework (2020-2024).

Measuring Strategy Indicators

We will track indicators to assess the outcome of each strategy. We will invest in building capacity for measurement to develop a coordinated and standardized method to quantify and report on each indicator, including:

- Developing a metric or formula by which to measure each indicator;
- Identifying data sources, data quality and data management needs;
- Tracking results for each indicator and comparing to targets where established;
- Assessing results and identifying short-term and long-term actions for improvement; and
- Reporting results.

P&I STRATEGIC FRAMEWORK: 2015-2019

We have initially identified the following indicators of strategy outcomes:

Strategic Area 1: Demand-Side Management

Strategy	Indicator
1. Lead by example through public building energy efficiency	<ul style="list-style-type: none"> A. Percentage of SEED-eligible projects that are SEED compliant B. Change in the number of eligible public building projects that report activities under the 1.5% for green technologies requirements C. Energy use by state buildings D. Energy use in public (K-12) schools
2. Strengthen the residential and commercial energy efficiency market	<ul style="list-style-type: none"> A. Market penetration measure for performance scores B. Number of participants in new market systems
3. Reduce the cost of energy for the industrial and agricultural sectors	<ul style="list-style-type: none"> A. Capacity of combined heat and power installed B. Energy use in agriculture
4. Advance total system benefits of Demand Side Management	<ul style="list-style-type: none"> A. Number of participants in demand response and dynamic pricing programs B. Available capacity of direct load control for demand response

Strategic Area 2: Clean Power and Thermal Energy

Strategy	Indicator
1. Enable a future electricity energy mix that will achieve Oregon's energy goals	<ul style="list-style-type: none"> A. Carbon content of Oregon's electrical energy mix B. Percentage of Community Renewable Energy serving Oregon load C. RPS compliance costs
2. Reduce the cost of integrating clean energy resources	<ul style="list-style-type: none"> • Supply and cost of integration resources
3. Improve the performance of the transmission and distribution system	<ul style="list-style-type: none"> • Soft costs to interconnect new generating projects
4. Develop a thermal energy framework that will help achieve Oregon's energy goals	<ul style="list-style-type: none"> • Carbon content of Oregon's thermal energy mix

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Strategic Area 3: Clean and Efficient Transportation

Strategy	Indicator
1. Diversify the transportation fuel mix	<ul style="list-style-type: none">Percentage of alternative fuels used in Oregon large fleets
2. Increase in-state alternative fuel production	<ul style="list-style-type: none">Amount of liquid alternative fuels produced in Oregon per year
3. Reduce fuel use in the transportation sector	<ul style="list-style-type: none">Gallons of fuel saved per year due to efficiency and conservation measures
4. Align regional, state, and local transportation activities	<ul style="list-style-type: none">Completed deliverables under ZEV MOU action plan
5. Identify barriers and opportunities to advance alternative fuel in the transportation sector	<ul style="list-style-type: none">Number of alternate fuel fueling stations in Oregon

Strategic Area 4: Resiliency and Sustainability

Strategy	Indicator
1. Improve the resilience of Oregon's energy system	<ul style="list-style-type: none">Approaches to energy resiliency used in regional planning efforts
2. Assess potential climate change mitigation strategies	<ul style="list-style-type: none">Historical & Projected GHG emissions
3. Incorporate analysis of climate co-benefits in energy planning and program development	<ul style="list-style-type: none">Not applicable
4. Conduct long-term energy planning	<ul style="list-style-type: none">Not applicable

Measuring Implementation of the Strategic Framework

We will measure our outputs by tracking the deliverables and timeframes reflected in individual work plans. We will use this data to communicate our progress internally and externally and use it to inform the planning process for the next P&I Strategic Framework. For all activities, we will track deliverables and whether they were accomplished in a timely manner.

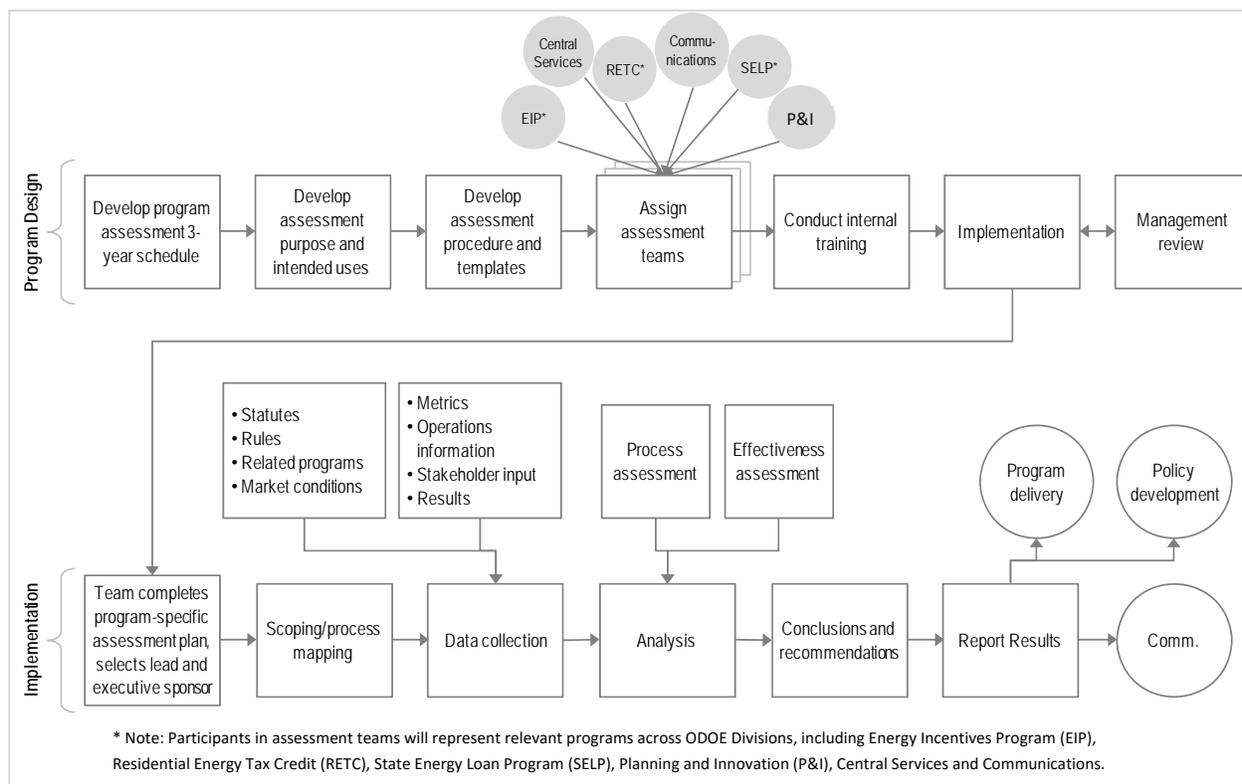
INTERNAL PROGRAM ASSESSMENT

We will undertake an assessment of our existing programs according to a regular schedule. This process will foster continuous improvement to maximize program effectiveness, contribute to staff capacity and professional development, and identify new areas for policy leadership. The process will include staff from inside and outside the division and will emphasize collaboration, efficiency, clear communication and accountability.

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Implementation of program assessments will require an investment of time and resources just like any other action described in the framework. Although the specific approaches will differ by program, they will follow a similar process flow as described in Figure 3 below.

Figure 3: Program Assessment Flow Diagram



Conclusion

Oregon has a history of support for the advancement of innovative energy policies that benefit the economic, social, and environmental interests of all Oregonians. With abundant natural resources and a willingness to advance cutting-edge energy programs, the state of Oregon is well-positioned to lead the nation in energy development, conservation, and efficiency today and well into the future. This Strategic Framework affirms this leadership role and memorializes our path to help the Oregon Department of Energy and the state reach this leadership vision.

Appendix: Enabling Legislation/Program Authorization

For conservation and energy efficiency, enabling legislation includes:

- Energy efficiency standards are outlined in ORS 469.229 through 469.261, and conservation programs for state and public buildings in ORS 469.700 through 469.756.
- Work on public buildings through the State Energy Efficient Design program is in ORS 276.900 through 276.915.
- School efficiency is in ORS 757.612 and 470.800 through 470.815.
- Energy codes and practices fall under ORS 455.492 and ORS 455.511.
- Energy conservation work for commercial buildings served by consumer-owned utilities is found in ORS 469.880 through 469.900
- Self-direction of the public purpose charge for industrial customers is located in ORS 757.600 through 757.687.
- Energy performance scores are located in ORS 469.703 for residential buildings and Oregon Laws 2009, Chapter 750, for commercial buildings.

For renewable and alternative energy work, enabling legislation includes:

- The inclusion of solar and geothermal energy technology in public improvement contracts is in ORS 279C.527 through 279C.528.
- The Renewable Portfolio Standard is addressed in ORS 469A.005 through 469A.300.
- The Renewable Fuel Standard is in ORS 646.905 through 646.923.
- Forest products and biomass authorization comes from ORS 526.274, 526.280 and 526.786.
- Direct solar energy activities are located in ORS 215.044 and 227.190.
- Geothermal work and wave energy efforts are included in ORS 552.125 and ORS 543.017, respectively.
- Clean transportation efforts, such as the Oregon Sustainable Transportation Initiative, are directed in ORS 184.886 and ORS 267.030.

Other enabling legislation includes:

- Greenhouse gas emissions reduction efforts are statutory requirements in ORS 468A.220 through 468A.250 and in ORS 757.522 through 757.538.
- Responsibility for the Biennial Energy Plan and forecasting activities is listed in ORS 469.060 and 469.070.
- Authorization to intervene in other agency proceedings is found in ORS 469.110.