

OREGON ENERGY GOAL, OBJECTIVES, BENCHMARKS

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GOAL: The state's energy policies and programs should provide all its citizens access to affordable, reliable energy systems capable of: (1) ensuring their health and welfare; (2) sustaining jobs, businesses and community institutions; and, (3) achieving the state's greenhouse gas emissions reduction and other environmental goals.

OBJECTIVES AND BENCHMARKS

1. Operations and Reliability: Oregon will take existing energy reliability and power quality standards as a minimum threshold, and will seek the higher levels of reliability, quality, utility and flexibility that will exemplify the advanced energy programming and control technologies of 21st Century utility services.

- 1.1. The reliability and quality of Oregon's electricity, gas and other energy supply resources will not fall below industry and regulatory standards prevailing in 2009 (too low?).
- 1.2. Oregon, in collaboration with the Bonneville Power Administration and other Northwest states, will be among the nation's leaders in designing and deploying Smart Grid capabilities from the customer side of the meter at the distribution end of the electrical grid or gas line to integrating generation, storage and controls technologies at the production end.

2. Affordability: Oregon energy policy and investment strategies prioritize affordable energy costs – as distinct from rates – for households and businesses.

- 2.1. Home energy costs for an average household should not exceed ____% of average Oregon household income.
- 2.2. Home energy costs for low-income households (income percentile level definition?) should not exceed ____% of average household income (for these households).
- 2.3. Average annual energy cost for Oregon businesses (by business classification) should be at or below national averages (for same classification) (define as energy per unit of output for manufacturing; and per dollar of gross earnings for retail/sales?)

3. Efficiency: Energy efficiency will be Oregon’s highest priority energy resource; and both public and utility sector energy planning will demonstrate that all practical and cost-effective energy efficiency is being captured before we have recourse to supply-side resources. “Cost-effectiveness” will have the same meaning as its definition in the Northwest Power Act of 1980.

3.1. By 2012, average home energy consumption (dwelling and HVAC, lighting, appliances) should not exceed _____ BTUe/sq ft (*preferred alternative: _____ lbs. CO₂e/Sq ft*). By 2020, it should not exceed _____ BTUe/sq ft. (set corresponding 2012/2020 efficiency goals for other buildings and processes) (what’s the 2030 building code “reach” goal in SB 79?)

3.2. The State’s institutional “built environment”, including university and government campuses, will demonstrate “best practices” efficiency and distributed energy investments and operating strategies as a model for the private sector by achieving the above goals on or before the target dates. State procurement practices will reflect long-term environmental costs and benefits in calculating the lowest cost bidder.

3.3. Where high-efficiency applications of natural gas are available for new heating loads, they should be the preferred choice (by code?) unless alternative technologies can be offered and substituted that will be more carbon-efficient (taking into consideration upstream carbon consumption per BTUe).

3.4. All Oregon households and businesses should have effective usable access to energy efficiency information, tools, professional guidance and long-term financing with power bill or property tax bill payback capability.

3.5. Oregon’s energy intensive industrial facilities¹, with technical and financing assistance from the State, will by 2020 be ranked in the top ten per cent of such plants nationally for energy and GHG efficiency.

4. Resource Diversity: Oregon will seek to capture the system reliability and flexibility, and the risk avoidance value, of a diversity of demand and supply side energy resources to serve Oregon loads.

4.1. To ensure that each of Oregon’s investor-owned electric utilities is able to call on diverse energy fuels and technologies to manage risk exposure (e.g., from supply interruptions, price excursions, new environmental considerations or other unforeseen events), by 2016 no single fuel (or technology) should make up more than 50% of such a utility’s resource portfolio. “Least cost planning” will include risk management through resource diversity and environmental dispatch, among other tools.

¹ E.g., cement, metals, chemicals, pulp & paper, wood products, food processing, etc.

4.2. Distributed (e.g., load-center) resources should receive full calculated system value for the attributes they bring (e.g. capacity, reliability; T&D upgrade deferral; negative line losses).

5. Greenhouse Gas Emissions Reduction and other Environmental Goals: Both public and utility sector energy planning will demonstrate that they are on pathways consistent with Oregon's greenhouse gas emissions reduction goals and all applicable Federal and State environmental requirements, and that they are taking into full consideration effects on ecosystem health and community livability in the siting of new energy facilities.

5.1. Energy resource suppliers serving Oregon residential, commercial, industrial and transportation sectors should be reducing their greenhouse gas (GHG) emissions consistent with adopted reduction goals, and this should be reflected in their least cost plans. Until the State has allocated reduction obligations otherwise, the sectors should assume sector reduction goals proportional to the State goals.

5.2. Oregon utility regulatory policies should reflect the value of optimizing the efficient match of energy fuels with different load characteristics (e.g., space and water heating).

5.3. Non-greenhouse gas emissions sources should be in full compliance with or exceed applicable Clean Air Act and State requirements in designated airsheds.

5.4. Major public and private sector construction projects should calculate and report their GHG footprint at design, construction and operating stages.

6. Transportation: In both state and community level transportation and land use planning, Oregon will prioritize both energy efficiency and compliance with greenhouse gas emissions reduction goals while protecting and enhancing environmental values and community livability.

6.1. By 2016, Oregon's non-commercial vehicle average fuel economy should be \geq _____ mpg (*preferred alternate: miles per tonne of carbon emissions*); by 2020, it should be \geq _____; by 2030 it should be \geq _____. (benchmark would reflect an electric vehicle fleet share and a non-petroleum fuels fleet share) (add - light commercial delivery and service vehicles fuel/GHG efficiency targets?)

6.2. State fleets will achieve the above goals at least (four) years earlier than the above schedule (excluding special purpose vehicles).

6.3. By 2016, Oregon's non-commercial vehicle miles traveled (VMT) per capita should be \leq _____; by 2020, it should be \leq _____; by 2030 it should be

≤ _____. (add: Portland travelshed VMT targets) (add: light commercial delivery and service vehicles VMT targets?)

- 6.4. By 2020, the Portland metropolitan area will have private and public electric vehicle charging station infrastructure to support a 10% penetration rate for EV's. By 2030, all Oregon's Metropolitan Planning Organization (MPO) urban areas will achieve the 10% standard, and the Portland area will achieve a 20% standard,
- 6.5. By 2020, the Portland metropolitan area will have achieved a (____)% modal split of non-single-occupancy-vehicles to alternate modes (transit, bicycle, pedestrian, carpool). By 2030, all Oregon's Metropolitan Planning Organization (MPO) urban areas will achieve the 10% standard, and the Portland area will achieve a 20% standard.
- 6.6. By 2016, in Oregon's incorporated communities, ___ % of residents should be able to access basic services (food, schools, recreation, transit) within a 20 minute walk from their dwelling. By 2020, ____% should be able to do so.
- 6.7. ["Connect Oregon" access goal for rural communities?]
- 6.8. [Eugene—Vancouver BC high speed rail target date?]

7. Research and Development: Oregon business and academic communities will target energy production, control and efficiency technologies in which they may have or capture an economic comparative advantage, and Oregon will seek to become a national leader in developing and deploying such technologies.

- 7.1. Oregon University System research agendas will inventory and prioritize energy research initiatives deemed significant to Oregon in the combined judgment of the State and the OUS (these may include: ocean, biomass and other supply technologies; "green building" and other demand-side technologies and practices; transportation technologies, fuels and land use efficiency practices).

8. Education: Acknowledging that energy, environmental, economic and community livability priorities must be aligned for Oregon to prosper in the future, and that such a task will require a citizenry literate in the values and tradeoffs involved, Oregon's K-12 and higher education institutions will incorporate these considerations into its science, social science and other curricula.

- 8.1. Oregon K-12 schools will include curriculum units on energy choices, with their economic and environmental consequences.

8.2. Oregon's system of higher education will build on existing disciplinary strengths, and develop new ones as necessary, to supply both an energy-literate citizenry and the technical research and application skills needed to compete in a "smart" and low-carbon energy future.

9. **Energy Planning and Policy: Recognizing that energy and its related environmental consequences are considerations that are present in nearly all areas of State jurisdiction – as equally with air, land and water – Oregon will create institutional arrangements, including a citizen's commission, to oversee development of State energy policy and coordinate with other agencies in its implementation subject to overall legislative direction.**