



Plan for City of Eugene to transition Electricity to 100% Renewable Sources by 2030

Submitted by: 350 Eugene Drawdown Working Group

Assumptions:

- EWEB and COE must partner on plan for accelerating electrification of buildings and transportation. **We should be making much better use of solar energy in Eugene.**
 - PNW Cloudy Days? Seattle, WA (2200 hrs annual sunlight) has more solar potential than the country of Germany (1500-1700 hrs). **PDX & EUG = 2300 hrs annual sunlight**
 - New Energy Mix target for 2030 that lessens dependency on Hydro and sources all new energy from SOLAR/STORAGE & WIND
 - **Goal is 100% Renewable Electricity Source Mix by 2030**
1. RECOMMEND: Support for Electric Vehicles (EV)
 - a. EWEB & COE need plan for public charging stations, including DC Fast Charge stations (See attached map)
 - b. Currently there are no DC Fast Charge Stations in Eugene!
(Source: US Dept. of Energy, Alternative Fuels Data Center: www.afdc.energy.gov)
 - c. City of Vancouver, BC has goal of complete fast charge network by 2021. What timeline for a EV fast charge network can Eugene commit to?
 - d. Generally, EV Charging stations are located near restaurants, shopping due to 30 – 60 minutes required to do sufficient recharge
 - e. COE: Can City/County find taxable sources to offer its own EV incentives?
 2. RECOMMEND: Build resiliency through locally produced SOLAR energy & BATTERY STORAGE
 - a. COE: Solar - City needs plan for how to deploy solar and produce energy locally
 - i. Can City/County find taxable sources to offer its own SOLAR incentives?
 - ii. Rooftop Solar – residential & business
 - iii. Community Solar – Schools, Churches
 - iv. Micro Grids – Build neighborhood resiliency when main grid goes down
 - b. EWEB: Make changes in their pricing and fee structures to better support rooftop residential and commercial solar
 - c. EWEB: Change to annual net metering; Oregon state wide standard
 - d. EWEB: Change to retail price for solar generated electricity sent to grid
 - e. EWEB: Raise per meter limit of 25kW to 200 kW TO GRID (limits commercial solar)
 - f. EWEB: revisit the base rate – how to incentivize for energy efficiency if customer is paying low rates for each kwh consumed
 - g. EWEB: Consider how to introduce solar neighborhood micro-grids that add resiliency when main grid is down (i.e. they can be isolated from main grid and stay online)
 3. RECOMMEND: Contract some of EWEB's future energy from Oregon generated WIND options
 4. RECOMMEND: Concentrate on demand management as part of “peak” solution
 - a. Smart Meters should allow for changing rates in evening hours to support EV charging



Plan for City of Eugene to transition Natural Gas to 100% Renewable Sources by 2030

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1. RECOMMENDED: Transition from gas to electric, as heaters and appliances need replacement¹
Carbon savings: 130,000 MT CO₂e by 2030
Cost considerations: 1) cost to owners when they would be making a purchase of a new appliance anyway; 2) costs to EWEB of increasing supply; 3) CoE could provide incentives using FA funds
Rationale: 1) Produces large carbon savings; 2) gives EWEB and home and business owners time to plan for switch to electric as their appliances reach the end of their useful lives; 3) definitive move away from fossil fuel energy
2. RECOMMENDED: Accelerate Efficiency and Conservation efforts² for homes and businesses
Carbon saving: 20,000 MT CO₂e by 2030
Cost considerations: CoE could offer incentives and low-interest financing options
Rationale: 1) Allows EWEB to partly accommodate increased demand from other solutions; 2) already under development as a CoE program, but needs extension to businesses as well as homes; 3) Businesses could begin with programs for tracking and reporting energy use to CoE
3. RECOMMENDED: Moratorium on new gas customer accounts³, at the time the new FA is put in place in 2019
Carbon savings: 40,000 MT CO₂e by 2030
Rationale: 1) definitive move away from fossil fuel energy; 2) doesn't impact any existing customers
4. RECOMMENDED: Require NWN customers to purchase Offsets, beginning when the new FA is put in place in 2019
Carbon savings: 160,000-310,000 MT CO₂e by 2030
Cost consideration: about \$5.50 a month per residential customer
Rationale: 1) serves as a "bridge" solution during transition from gas use; 2) relatively inexpensive; 3) proceeds could go to local climate solution programs, prioritizing needs of low-income rate-payers, or to current NWN's Smart Energy program, which concentrates on methane capture projects.
5. RECOMMENDED: CoE will engage with the largest commercial and industrial emitters in Eugene, to track and report on energy use, and to develop emissions reduction plans
6. Biogas: NOT recommended for pipeline; better as a vehicle fuel⁴
Carbon savings: 80,000 max by 2030
Rationale: 1) not cost effective: requires expensive pipeline build-out by NWN; 2) perpetuates use of fossil fuel because most of supply remains fracked gas

¹ Good Company called this: "Regulate the purchase and installation of NG appliance"

² Good Company called this: "Home efficiency score program"

³ Good Company called this "No new customers"/"No new infrastructure"

⁴ Good Company called this: "Require NWN to fuel switch to biogas and renewable hydrogen"