

memorandum

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to Shane Hope and Kernen Lien, City of Edmonds

cc Jeff Caton

from Mark Johnson and Breanna Sewell, Environmental Science Associates

subject Review of Other Jurisdictions' Climate Action Plans

Introduction

As a part of the City of Edmonds Climate Action Plan (CAP) Update, ESA was asked to research and report to the City what other jurisdictions are doing to reduce greenhouse gas (GHG) emissions on a community scale. Selected jurisdictions are either in the Northwest region, similar to the Edmonds community, or both. This memo summarizes a range of possible actions beyond those Edmonds has already undertaken. It is intended for City staff, policymakers, and the general public. It is not an exhaustive analysis, as hundreds of jurisdictions are doing this type of planning; instead, it identifies practical and applicable examples for the City to consider now or in the future.

This summary targets CAP strategies with the greatest reduction potential for the sectors in which Edmonds has the greatest percentage of overall emissions (i.e., buildings and transportation). The 2017 GHG inventory showed that buildings and transportation make up 52% and 40% of community-wide emissions, respectively. Within the buildings sector, residential buildings contribute 67% of emissions. By 2035, with the City's planned reductions realized and the State's Clean Energy Bill implemented, buildings and transportation are anticipated to make up approximately 45% and 41% of total emissions (162,815 MTCO₂e), respectively. This insight allows the City to target policy toward the sectors and activities that contribute the most to Edmond's emissions profile.

Each of the following six pages presents a snapshot of another jurisdiction's CAP. There are links in each section to the respective CAP so that a curious reader may investigate further.

Seattle, Washington

The City of Seattle has been a frontrunner in climate action since 2011, when it adopted the goal of carbon neutrality by 2050. Along with their [2013 CAP](#), which received an ‘A’ grade from the Carbon Disclosure Project, the City published a [CAP Implementation Strategy](#). A succinct, updated [Climate Strategy](#) was published in 2018; it includes an overview of

Population	725,000
CAP Last Updated	2013
Targets & Commitments	Carbon Neutral by 2050 – Goal of Paris Agreement
Notable Features	Implementation Strategy; Regular Performance Monitoring

the City’s GHG emissions over time, recent climate action taken, and near-term priorities. Although Seattle is over 15 times the size of Edmonds in terms of population, its proximity, climate leadership, and successful transportation initiatives make it a useful and relevant city to model. Notably, among its near term goals, Seattle has a goal of having 30% of light duty vehicles being electric or plug-in hybrid citywide by 2030; by comparison to date we have been using about 19% by 2035 for Edmonds.

City of Seattle Actions & Strategies

Transportation

- A pilot program that permits the installation of publicly available electric vehicle (EV) charging stations on non-residential streets in urban centers and commercial streets.
- Amendment of the City Electrical Code to ensure that new parking is built to facilitate future EV charging infrastructure. The code requires adequate electrical capacity to serve one EV charging station per parking space in new commercial and residential buildings.
- Incorporation of EVs and clean fuels into the municipal fleet. Seattle’s Green Fleet Action Plan sets a goal of reducing municipal fleet emissions by 50% by 2025.
- Development and distribution of a map of optimal distribution of charging infrastructure.

Buildings

- Creation of the Oil Heated Home Conversion Program. This program provides incentives for homeowners to replace oil heating systems with clean, efficient, electric heat pumps by partnering with a heat pump distributor who provides matching incentives. Conversion from oil heaters to electrical heat pumps is estimated to save 5 MTCO_{2e} per home.
- Implementation of an advanced commercial energy code, which requires either non-fossil fuel-based heating or more efficient windows.
- Expedited permitting by the Department of Construction & Inspections for projects that meet certain energy efficiency (15% better than code), water conservation, and indoor air quality criteria.
- Pilot program that will offer significant additional height and floor space incentives for up to 20 major building renovations in urban villages, to encourage retention and energy efficiency improvements for existing buildings.

Portland, Oregon

In 1993, the City of Portland was the first U.S. city to develop a CAP, and they have made significant headway in citywide GHG reduction since then. In 2014, the City was on track to meet their interim goal of 40% reduction by 2030, reporting emissions 21% below 1990 levels. Portland reports that since 1990, their population has grown 33%, they have

Population	648,000
CAP Last Updated	2015
Targets & Commitments	40% Reduction by 2030; 80% Reduction by 2050 (From 1990)
Notable Features	2017 Progress Report; Annual GHG Inventories; First U.S. City to Develop a CAP

24% more jobs, and their per capita emissions have fallen 41%. Additionally, their [2017 Progress Report](#) states that 83% of the 171 actions from the [2015 CAP](#) are on track to be completed by 2020. Portland's dedication to climate action for over two decades, annual inventories of their carbon footprint, and diverse set of strategies made them successful in their efforts thus far, even while experiencing significant growth.

City of Portland Actions & Strategies

Transportation

- Implementation of a bike share system. Portland's BIKETOWN program resulted in a 26% auto trip replacement rate.
- Introduction of a 10-cent-per-gallon tax on vehicle fuel to fund traffic safety projects; improvements to sidewalks, street crossings, and bike routes; and street repairs.

Buildings

- Adoption of a policy that requires the disclosure of home energy information on single-family homes when a home is listed for sale. Energy disclosure allows homebuyers to factor a home's energy use into their purchasing decision.
- Implementation of a policy that requires owners of commercial buildings of a certain size to track and report their energy performance, which enables benchmarking against buildings nationally.

Other

- Adoption of a requirement that projects seeking a demolition permit for a house or duplex must fully deconstruct the structure if it was built during or prior to 1916 or if it is a historic resource. This ensures that materials are salvaged and reused instead of demolished and landfilled. Portland is working with community partners to offer training and certification on deconstruction.

Bellingham, Washington

The City of Bellingham adopted their first CAP in 2007, establishing targets for 2012 and 2020. The 2018 update established targets for 2030 and 2050.

Bellingham has identified separate targets and measures for municipal and community emissions. Their 2050 target is to reduce municipal emissions by 100% and community emissions by 85%.

The adoption of Bellingham's [2018 CAP](#) update included the creation of a Climate Action Plan Task Force. The task force is comprised of community members, utility and public transportation representatives, and City staff members and is dedicated to the community and municipal 100% renewable energy goals. It has contributed greatly to the City's emission reduction thus far, as accountability is a key component of successful CAP implementation. Bellingham, like other Cities, has developed summary information of progress to date that can be viewed online, as a means of keeping the public engaged.

Population	89,000
CAP Last Updated	2018
Targets & Commitments	Municipal – 100% Reduction by 2050; Community – 85% Reduction by 2050 (From 2000)
Notable Features	Dedicated CAP Task Force; Online Summary of Reduction Measure Progress

City of Bellingham Actions & Strategies

Transportation

- Addition of a municipal bike fleet. Eight fully accessorized bikes are available to staff for official business and personal errands.
- Collaboration with regional partners to limit vehicle idling. With funding from the Northwest Clean Air Agency, RE Sources worked with 22 schools in the area to limit idling and reported preventing 1,380 tons of CO₂ emissions. A toolkit was also created for municipalities.

Buildings

- Creation of the Community Energy Challenge, a program that provides whole-building energy assessments for homes and businesses, resulting in a list of prioritized upgrades from no- to low-cost actions, as well as financing options for larger retrofits. Program participants can access utility rebate programs for lighting and insulation improvements, sealing, and more efficient appliances.

Other

- Retrofit of all public lighting with LED bulbs.

Ashland, Oregon

Although their climate action started years before, the City of Ashland did not create a [CAP](#) until 2017. Despite this, the City is in a good position to meet their targets of 8% annual reductions in community emissions and a carbon neutral municipality by 2050, according to their [2018](#) and [2019 Progress Reports](#). As of 2017, Ashland households were producing approximately 25% fewer GHG emissions than the typical Oregon household. Like Edmonds, the transportation and buildings sectors together contribute the vast majority of emissions to Ashland’s total.

Population	21,000
CAP Last Updated	2017
Targets & Commitments	Municipal – Carbon Neutral by 2030 & Zero Fossil Fuel Consumption by 2050; Community – 8% Annual Emissions Reduction
Notable Features	2018 & 2019 Progress Reports; Informative ArcGIS StoryMap; Online Emissions Dashboard

City of Ashland Actions & Strategies

Transportation

- Providing incentives for employer-sponsored bicycle programs, including for City employees.

Buildings

- Implementation of a program that offers incentives to building owners and occupants to upgrade or replace building systems – including lighting, HVAC, heating – with newer and more efficient equipment.
- Creation of a City-sponsored community solar project that gives citizens the opportunity to “adopt” a City solar panel as a way to purchase local renewable energy.

Other

- Custom City of Ashland Carbon Offsets program, through funding of carbon offset projects, which is available to residents and businesses.

Palo Alto, California

The affluent City of Palo Alto was one of the first cities to adopt a municipal CAP back in 2007. They adopted their current Sustainability and [Climate Action Plan](#) in 2016, setting a single goal of 80% reduction of GHG emissions by 2030 (using a baseline of 1990 levels), with no

mention of 2050 targets. Shortly after, they developed a 2017–2020 implementation plan and then a more concise [2018–2020 implementation plan](#). By 2016, Palo Alto had already achieved a 36% emission reduction from 1990 levels. To achieve the remaining 44% reduction, the City is focusing on transforming transportation and phasing out natural gas use, as most of their reductions thus far have come from the introduction of carbon neutral electricity.

Population	67,000
CAP Last Updated	2016
Targets & Commitments	80% Reduction by 2030 (From 1990)
Notable Features	Implementation Plan; Online Performance Dashboard

City of Palo Alto Actions & Strategies

Transportation

- Exploration of parking management strategies, including dynamic pricing, to support transportation and sustainability goals and better align the cost of commuting by car with the cost of commuting by transit.
- Evaluation of programs to expand EV charger deployment on private property, including rebates and financing options.

Buildings

- Encouragement of voluntary electrification (and mandates as appropriate) of natural gas appliances through actions such as pilot programs, process streamlining, evaluation barriers (rates/fees, financing), and contractor/supplier engagement.
- Continue to purchase carbon offsets to match natural gas emissions as a transitional measure.

Shoreline, Washington

The City of Shoreline, Edmonds' neighbor, adopted their [CAP](#) in 2013, committing to the targets of 25% reduction by 2020, 50% reduction by 2030, and 80% reduction by 2050 (using a baseline of 2007 levels). In 2017, the Shoreline City Council

Population	56,000
CAP Last Updated	2013
Targets & Commitments	25% Reduction by 2020; 50% Reduction by 2030; 80% Reduction by 2050 (From 2007)
Notable Features	Simple, Accessible Online Performance Graphics

released a [staff report](#) summarizing progress and recommending future actions. The report included the implementation status of each of the 45 CAP recommendations, 78% percent of which were either complete, in process, or on-going. Shoreline's website features sector-specific progress graphics that are engaging and accessible to the layperson. The proximity and size of the City of Shoreline make it a valuable asset in Edmonds' review of potential CAP actions and strategies.

City of Shoreline Actions & Strategies

Transportation

- Creation of "No Idle Zones."
- Installation of "smart" water meters, which transmit water usage data electronically. This eliminates the need for utility staff to drive house-to-house to read meters.
- Establishment of a car-sharing program, such as Zipcar or Gig.
- Creation of the Shoreline Walks Program, which organizes and leads free walks to encourage adults to switch to non-vehicular transportation.

Buildings

- Promotion of residential energy efficiency by a City partnership with SustainableWorks, a non-profit energy-efficiency general contractor. SustainableWorks provides homeowners with low-cost home and energy audits and financing assistance for upgrades in exchange for meeting space and advertisement from the City.
- Investigation of the feasibility for developing a district energy system within the city, which eliminates the need for individual boiler systems.

Other

- Investigation of opportunities for rainwater harvesting and greywater reuse at existing and new City facilities and open spaces.
- Promotion of water conservation through outreach and communications to residents and businesses.
- Consideration of a shift to every-other-week garbage collection and weekly organic collection.
- Collaboration and outreach with second-hand stores and King County to promote textile collection and recycling.