



## Buildings & Energy

### **EY-1 Replace Fossil Fuels with Renewable Energy Resources: Solar Installations**

Description: Promote the installation of renewable energy projects with the City via a) adopting appropriate zoning allowances; b) encouraging and supporting state legislators to sponsor appropriate bills; and c) creating financial assistance programs.

Assumptions:

- Average solar installation size of 9 kW; 164 systems in Edmonds in 2018
- 600 solar PV systems installed in new residential units and 30 solar PV systems installed in new commercial units by 2035
- 1,200 solar PV systems installed in new residential units and 100 solar PV systems installed in new commercial units by 2050
- The regional electric grid must be carbon neutral by 2030, therefore additional renewable local electric generation does not reduce GHG emissions beyond that date but may help utilities reach that requirement.

Workshop Notes:



## **EY-2 Improve Efficiency of Existing Buildings and Infrastructure**

Description: Promote a building retrofit program for improving energy efficiency to reach a long-term goal of 55% per capita reduction in energy consumption by a) creating a financial assistance program operated by the City alone or jointly with utilities and energy companies to provide the incentive for overcoming upfront installation costs; b) developing a program for contractor certification; and c) updating the permitting procedures and methodology to streamline the process. Improve energy efficiency of municipal operations and public infrastructure. Continue to make improvements to wastewater treatment plant.

### Assumptions:

- Assumes 10% of electricity savings per retrofit and 25% of natural gas energy savings per retrofit
- Conversion of natural gas appliance to electric after 2030 results in 100% reduction in GHG emissions for that appliance.
- 18% of residential square feet (6,000,000 sq. ft.) upgraded and 18% of commercial square feet (1,200,000 sq. ft.) upgraded by 2035
- 33% of residential square feet (12,000,000 sq. ft.) upgraded and 33% commercial square feet (2,300,000 sq. ft.) upgraded by 2050
- All GHG reductions after 2030 would be the result of energy conservation in buildings still served by fossil fuels (e.g. heating, hot water, cooking).
- Wastewater treatment plant improvements are those that were already funded in 2017 and represent approximately 417 MTCO<sub>2</sub>e per year for each year after that date. No additional improvements were assumed.

### Workshop Notes:



### **EY-3 Improve Efficiency of New Buildings**

Description: Encourage meeting at least Silver-level LEED standards or equivalent for all new residential and commercial buildings, including landscaping, as well as any major commercial remodeling projects. Increase the LEED-level requirement as technology and economy dictates.

Assumptions:

- Assumes a similar mix of electric and gas appliances as is currently employed- roughly evenly split between electric and gas.
- 20% of new residential development, and 75% of commercial development expected to be LEED-Certified by 2035
- 75% of new residential development, and 100% of commercial development expected to be LEED-Certified by 2050
- 30% of energy savings expected from LEED-certified buildings, and 50% energy savings from Gold and Platinum LEED-certified buildings
- LEED relates to conserving both electricity and fossil fuel, but GHG reductions after 2030 are due to fossil fuel conservation
- By 2050, buildings built after 2017 will be approximately 20% of total residential floor area, and 9% of non-residential floor area

Workshop Notes:



## Waste & Natural Resources

### EY-4 Increase Carbon Sequestration

Description: Maintain, and wherever possible, expand our urban forests.

Assumptions:

- 5,000 additional trees in Edmonds by 2035
- 10,000 additional trees in Edmonds by 2050
- Restoration of the Edmonds marsh may result in net sequestration, but this cannot be quantified without additional study

Workshop Notes:



### **W-1 Reduce Material Consumption**

Description: Research a zero-waste goal and develop a zero-waste strategic plan for Edmonds.

Assumptions:

- In 2017, solid waste generation in Edmonds was approximately 770 pounds per person.
- 73% of Edmonds GHG emissions from waste come from solid waste
- 25% reduction in solid waste generated by 2035
- 50% reduction in solid waste generated by 2050

Workshop Notes:



## **New Strategies**

**We are looking for new ideas and strategies that may have not been included in the Edmonds CAP already. Some examples of new strategies (dates and percentages are suggested, but may be modified):**

### Residential buildings

- Electrify 95% of all homes by 2050
- Require all new houses and apartments to be net-zero, or 100% electric, or 100% electric heat and hot water, with adequate load center to go all electric in future
- Electrify all homes affordable for people earning less than 80% of Median Household Income by 2030 (approximately 40% of all households met this threshold)
- Convert 95% of existing oil furnaces to electric heating by 2030
- Support changes to state building code to achieve net zero energy consumption in new buildings by 2030
- Make 90% of all existing homes electrification-ready with adequate load centers over the next 10 years
- Streamline permitting for all-electric buildings
- Limit the expansion of the natural gas distribution system

### Institutional and commercial buildings and commercial space

- Electrify all businesses, including heating, hot water, and cooking by 2050
- Electrify heating and hot water for all small business spaces by 2030
- Electrify all public schools by 2030
- Restrict or prohibit use of fossil fuels for outdoor heating

### Transportation

- Increase percentage of EV and/or plug-in hybrids registered in Edmonds to 50% of all vehicles by 2030
- Encourage most SOV commuting to be by electric vehicle by 2035
- Equip 75% of all homes and apartment buildings with vehicle charging stations by 2030
- Require all new buildings to be prewired for vehicle charging stations
- Install vehicle charging stations at all public parks by 2025
- Replace all medium- and light-duty delivery vehicles with EVs by 2030
- Replace all medium- and light-duty City vehicles with EVs by 2030
- Support electrification of all transit vehicles by 2030
- Support the use of electric bicycles for commuting and errands



**Use this space to create your own strategies that have not been already proposed in the Edmonds CAP!**

**Title:**

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Considerations:

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Workshop Notes:



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Description:

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Workshop Notes:



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