## HOMES are a significant source of carbon pollution in Edmonton



single family/ duplexes

217,500 units

**2 million** tonnes CO<sub>2</sub>e/year<sup>1</sup>



low-rise MURB\* (<4 storeys)

138,000 units

**1.1 million** tonnes CO<sub>2</sub>e/year<sup>1</sup>

\*multi-unit residential buildings



mid-/high-rise MURB\*

23,500 units

**200,000** tonnes CO<sub>2</sub>e/year<sup>1</sup>

## Edmonton aims to be carbon neutral by 2050.<sup>2</sup>

We need to retrofit our homes to be better insulated and more air-tight, and use more efficient heating systems, like electric heat pumps.



When we use electricity — which mostly comes from coal and gas plants in Alberta — and burn natural gas in furnaces and boilers for heating, **our homes emit carbon pollution**:



Retrofitting our homes now will help **reduce emissions by 2050**<sup>3</sup>

30 25 20<sup>2</sup> 6(m<sup>2</sup>) 20 2050 (projected)



## To be carbon neutral by 2050, we need to increase grid and on-site renewables and **retrofit more than 3% of existing homes** every year from now through 2050





**4,500** units/year



These energy upgrades will require an annual investment of about **\$320 million**<sup>4</sup>



and result in over **3,000** jobs/year⁵





- 1. Based on a grid intensity factor of 0.704 g/kWh. City of Edmonton, *Greenhouse Gas Management Plan*, 74. www.edmonton.ca/city\_government/documents/PDF/GHGManagementPlan-CityOperations.PDF Housing data provided by Sustainability Solutions Group. www.ssg.coop/
- 2. Getting to City of Edmonton, *Getting to 1.5°C: A Discussion Paper* (2019). www.edmonton.ca/city\_government/documents/PDF/GettingTo1-5DiscussionPaper.PDF
- 3. Grid intensity factor projected to decrease to 0.343 g/kWh under current AESO policies and programs.
- 4. 2020 dollars, assuming an average incremental cost of \$30,000 for single-family and mobile homes and \$16,000 for multi-family residential units. Ralph Torrie and Céline Bak, "Building Back Better with a green renovation wave," *Corporate Knights*, April 22, 2020. https://www.corporateknights.com/channels/built-environment/recovering-stronger-building-low-carbon-future-green-renovation-wave-15875463/
- 5. An estimated 9.5 direct, indirect and induced full time job years are generated for every million dollars spent. Based on Dunsky, *The Economic Impact of Improved Energy Efficiency in Canada* (2018). Efficiency Canada, *Written Submission for the Pre-Budget Consultations in Advance of the Upcoming Federal Budget* (2020). https://www.efficiencycanada.org/federal-pre-budget-consultations/

## Reducing carbon pollution starts at home

