Aspiration Goals for Space Heating in Canada

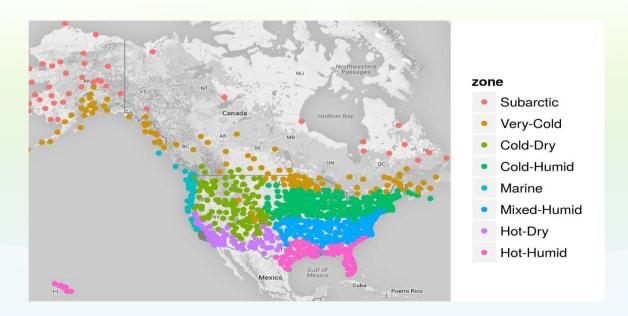
2019 NEEP ASHP Market Transformation Workshop

June 19, 2019





CANADA CLIMATE







ENERGY AND MINES MINISTERS' CONFERENCE (EMMC) ON CLEAN GROWTH AND CLIMATE CHANGE

- Canadian Low Carbon Economy Fund
- 2017: aspirational goals → A market transformation roadmap





CANADA'S ASPIRATIONAL GOALS

Short term: By 2025,

- All fuel-burning technologies for primary space heating for sale in Canada meet an energy performance of at least 90% (condensing technology).
- All air-source heat pumps for sale in Canada meet a SCOP (as per CSA EXPO7) greater than 2.5

Medium term: By 2030,

- A residential natural gas heat pump with a SCOP greater than 1.2 can be manufactured and installed cost-effectively (R&D target).
- A residential cold climate air-source heat pump with a SCOP (as per CSA EXPO7) greater than 2.75 can be manufactured and installed cost-effectively (R&D target).
- The deployment of heating systems using renewable technologies and renewable resources is supported.

Long term: By 2035, all space heating technologies for sale in Canada meet an energy performance of more than 100%.





CANADA'S ASPIRATIONAL GOALS

- While expressed as a minimum standard, goals do not serve as a forward regulatory plan
 - Regulated minimum energy efficiency standards are a policy tool that has a role to play,
 but its use will be informed by status of equipment markets
 - o There are significant economic, technological and market readiness barriers that need to be overcome to achieve these goals





STATUS OF HEAT PUMPS IN CANADA

- Shipment of residential heat pumps in Canada has been increasing linearly since 2000.
- 2016: we started seeing an important increase; 30% increase for ductless units
- A lot of interest from provinces to reduce GHG for space heating; Heat Pumps are well positioned to get there.





STATUS OF HEAT PUMPS IN CANADA

Incentives:

- BC up to \$1,000 to \$3,000
- NB up to \$1,750
- NS up to \$2,500
- PEI up to \$2,500 (\$4,500 for low-income earners)
- QC: \$600

Canada





WHAT IS DONE

OEE:

- Participated in the development of CSA EXP07
- Support to build testing capability according to CSA EXPO7
- CCHP Field monitoring across Canada (few of these models also lab tested)
- Testing units to CSA EXP07
- More testing (opportunity to collaborate)





OPPORTUNITIES FOR COLLABORATION (GOALS)

- Identified 44 initiatives, encompassing research, development and deployment activities that could help overcome barriers:
 - o 11 window initiatives
 - o 18 space heating initiatives
 - o 15 water heating initiatives
- Will require collaborative action across governments, industry and stakeholders for successful implementation
- Will be delivered through a governance structure to ensure ongoing engagement from key players across a wide range of initiatives

Support the "lay of the land" and gap analysis exercise

• Identify to NRCan information on existing or planned activities which support initiatives outlined in Roadmap

Support the work of the Implementation Teams

- Identify to NRCan interest in supporting work of Implementation Teams (44 priorities identified)
- Provide funding/expertise to any of the roadmap initiatives

Information can be submitted to:

nrcan.mtroadmap-tmfeuillederoute.rncan@canada.ca





Thank you

Mvuala.suami@canada.ca

Senior Standard Engineer, Equipment Division, Office of Energy Efficiency, Natural Resources

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