Characterizing heat pump consumers in BC’s urban centres

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Objectives:
• How do heat pump owners differ from non-owners in terms of attitudinal, contextual, and socio-demographic factors?
• What are the potential policy implications based on the size and composition of these groups?

Background:
• Leading academics and governments identify heat pumps as key technologies for decarbonizing home heating
• However, less than 10% of households in BC cities use heat pumps for their space heating needs
• For optimal policy design and communication, need to understand how heat pump market segments differ
• Useful framework: “Pioneers”, “Potential Early Mainstream” (PEM), and “Late Mainstream” (LM)¹

Methods:
• Web-based survey of 372 respondents from urban centres in BC
• Market segments determined by heat pump ownership and stated willingness to adopt heat pumps
• Respondents were given information about relevant home heating technologies, including heat pumps, before being asked about their willingness to adopt heat pumps
• Segments compared using attitudinal, contextual, and socio-demographic factors²
• ANOVAs and Tukey HSD used to test association of key variables with segment membership

Results – Segmentation:

Results – Statistical Analysis:
Compared to the LM, Pioneers and the PEM are more likely to be:
• Younger
• Educated at post-secondary institutions
• Liberal politically
• Open to change
• Technology-oriented
• Environmentally-oriented
• Concerned about climate change
• Trusting of government
• Living in newer houses
• Living in single-family detached homes
• Aware of heat pumps

Conclusions:
• High potential demand for heat pumps
• More awareness on the existence of heat pumps needed, especially for older households
• Environmental framing will not be persuasive for everyone

References: