Pathways to Net-Zero Buildings in B.C.: Getting Part 3 Net-Zero Ready

SHORT-TERM ACTIONS (0-2 yrs) SHORT-TERM OUTCOMES (0-3 yrs) VISION AND CHANGE MANAGEMENT B.C. commits to an energy code schedule and **MID-TERM OUTCOMES** Set targets for existing and new buildings in Climate Leadership Plan supporting policies achieving net-zero ready (3-10 years) • Create ongoing multi-stakeholder panel to advise on energy efficiency in Part 3 buildings by 2030 Assess gaps in the current change management system Increased market demand for **CODE DEVELOPMENT** Local governments replace technical building energy efficient buildings and bylaws with provincial stretch code Work with Energy Efficiency Working Group to design stretch codes including a net-zero products ready stretch target Prepare for revised energy code by 2017-18 Adopt ASHRAE 90.1-2016 or NECB 2015 Ensure guick assessment of alternative solutions and remove regulatory barriers to high Local manufacturer, distributors (revised) in 2017-2018 code performance buildings and suppliers offer a range of high performance components DEMONSTRATION PROJECTS 50-100 demonstration projects planned Design an 'exemplary buildings' incentive program for net-zero ready demonstration projects across the province including schools, Require all new provincial buildings and affordable housing to be built net-zero ready homes, MURBs, offices, etc. are planned, Support local governments in adopting net-zero ready policies fo civic buildings Cost, energy use, and design built or retrofitted net-zero ready solution data available for design of TRAINING AND CAPACITY BUILDING high performance energy codes • Provide R&D funding for B.C.-made high performance components and to cover Research of case studies identify low-cost certification costs design strategies that achieve high • Create trade alliance to support delivery of high performance demonstration projects performance and comfort Support stakeholder groups to share successes and failures Trades and professionals familiar FINANCING MECHANISMS & INCENTIVES Increased capacity to deliver on high performance buildings with high performance design Gather lessons learned from Manitoba and U.S. PACE programs Research how incremental capital cost could be transferred to stratas • Align utility and provincial incentives Allow redistribution of incremental capital Increase carbon tax cost to facilitate investment in EE BENCHMARKING Enable electronic data exchange with Portfolio Manager New benchmarking policy implemented in Develop and implement mandatory benchmarking and reporting policy major urban centers Develop benchmarking data-sharing agreements between the prov, utilities and LGs Develop communication framework for sharing benchmarking results to influence Reporting and disclosure of benchmarking Performance gap closed through market decisions data informs policy and market Develop roadmap to public disclosure of benchmarking data outcome-based code or market Assess usefulness of asset-based tools (e.g. DOE asset-score) and pilot if needed transformation Adopt mandatory commissioning standard COMPLIANCE, COMMISSIONING, AND CONTINUOUS OPTIMIZATION Integrate Building Envelope Thermal Bridging Guide in permitting process Building performance is maintained Develop airtightness testing requirement Increased use of integrated project delivery Find appropriate commissioning standard for adoption in stretch code and matches design expectations frameworks • Engage owners on value proposition of commissioning and continuous optimization Develop performance based contracts spreading responsibility for performance between Increased opportunities for continuous designer, contractor, and operator Energy code compliance > 85% Promote adoption of APEG/AIBC modelling guidelines optimization of new and existing buillings Promote adoption of design verification checklist and streamlined field review process Implement spot checking to ascertain compliance record of builders, engineers, Improve compliance from ~70% to ~85% architects and developers



LONG-TERM OUTCOMES (10-15 years)



http://www.pembina.org/pub/pathways-to-net-zero-bc-policy-2015