

Signs of Change Paper Abstract

Energy and Carbon Mapping in Canada and its applicability in New Zealand

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Across Canada, a number of municipalities are engaging in the process of sustainable energy and greenhouse gas planning. The approach taken by each community is varied according to their overall understanding of sustainability issues, planning capabilities and specific energy and greenhouse gas (GHG) objectives. What is becoming apparent to municipalities across Canada is that the current process used to plan for built environments, power built spaces and transport people will need to change in order to successfully achieve GHG reductions and to assist communities to adapt to climate change. The experience in Canada can be used to understand how best to approach the issues of integration of community planning and sustainability in New Zealand

In Canada, the use of land use, transportation and energy mapping, referred to as energy and carbon mapping, has emerged as a powerful approach for helping communities and energy utilities move towards addressing energy efficiency and GHG reduction targets. Energy and carbon mapping is directed at establishing a common platform that allows planners and engineers from all sectors to actively discuss, analyze and modify the multitude of decisions that impact a communities' energy profile. This approach allows communities to plan from a future vision of energy use and emissions and back cast to ensure that energy, land and transportation planning are integrated so as to achieve the vision. The paper sets out a methodology for energy and carbon mapping that has been used in a number of Canadian communities. The paper highlights some of the key lessons learned from several of the participating communities, including the need to establish energy objectives early on, the need for multi-disciplinary municipal teams, and the importance of standardizing data. The paper concludes with the potential benefits of energy and carbon mapping to municipalities, utilities and other stakeholders, including benefits to planning, regulatory affairs, demand side manage programs and relationships with the municipal sector. This conclusion includes analysis of the benefits of these concepts for Planning in New Zealand and their applicability in New Zealand