

**Comité permanent des ressources naturelles, Chambre des Communes**  
**House of Commons Standing Committee on Natural Resources**

Étude sur la contribution d'une approche intégrée des services énergétiques  
dans les collectivités canadiennes.

Study on the contribution of integrated approaches for providing energy services  
in Canadian communities

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**POINTS FOR DISCUSSION , 31 March 2009**

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**My perspective**

User/consumer behaviour in the context of community and regional planning, notably transport planning.

Have run PROCESSUS, an international research programme on the monitoring and simulation of user behaviour in its “two-way” relationship with land-use, transport, telecommunications, equity and sustainability.

Research on how people may respond to new technologies and policies, and to unfamiliar situations such as energy shortages.

Concerned with *decision support* under two vulnerabilities: the “acute” problem of energy supply perturbations, and the “chronic” problem of unsustainable development and climate change.

Helped organise QUEST.

Urban energy efficiency is difficult for decision-makers to handle partly because research evidence, like community energy systems, is “siloeed”. A 2006 Canada-UK Bilateral Scientific Workshop on Improving Urban Energy Efficiency identified both technical and policy issues (summary report available). Canadian universities are tackling these issues, but the workshop concluded that researchers also need to provide decision-makers with a better “narrative” about the implications of scientific evidence.

**In that spirit, here are six points that you may wish to discuss further, hopefully building on other testimony in these hearings:**

1. ON INTEGRATION: The urban world looks more seamless to most consumers than to the many professionals that help build and operate it, BUT consumers have their fair share of silos when it comes to managing energy use (e.g. car trips versus home heating thermostat settings)

2. WILL CANADIANS VIEW THEIR COMMUNITY THROUGH AN ENERGY/ SUSTAINABILITY “LENS”? Probably not in the abstract. But the multiple opportunities offered by energy efficient products and services may offer more than the sum of the parts, and resonate with those who are “ripe” for a shift in they way they live their lives. (Once ready, people tend to change several things at once)
3. THE WISDOM OF CONSUMER EXPERIENCE: Why electric cars resemble microwave ovens. Consumer response is not just about prices. Canadians will invent new ways of living and we need to catch up with their thinking.
4. THE CENTRALITY OF KNOWING HOW WE ARE DOING: The same technologies that allow for smart grids and peak pricing *could* provide consumers with a “one-stop” balance sheet that reveals their household’s recent and cumulative energy performance across the buildings/vehicles boundary – particularly but not necessarily if the vehicles are plugged in at home. It is possible that such information will be more compelling to consumers than the calculation of payback periods: it should help them chose between different uses of energy. Similarly, *communities* need a synthesis of such balance sheets to know how they are doing.
5. FROM A DECISION-SUPPORT PERSPECTIVE, WHAT SHOULD BE THE FEDERAL GOVERNMENT ROLE IN IUES? Three priorities:
  - First, continue the federal role to provide a national clearinghouse of energy-use data, monitoring, modelling and evaluation, drawing on university expertise (e.g. the three Data and Analysis Centres in B.C., Alberta and Québec).
  - Second, increase support to integrated community energy systems “test cases” at appropriate scales to demonstrate multi-sector actions, to encourage the entrepreneurship and creativity of Canadians, to take risks, embrace errors, and to help build the narrative about what is worth doing
  - Third, provide the conditions for “beachhead” innovations such as low-carbon vehicles or distributed energy generation, but only if the experience of actual implementation is *evaluated* as part of an integrated approach.
6. BOTTOM LINE: We should be in the *incubation* business. Canadian communities have done this for SMEs for many years. The impressive variety of stakeholders that have lined up with QUEST should nurture, understand, interpret and publicise a variety of integrated energy management packages that meet the needs of different sizes of community and different regions of Canada. **The research community is both a source of innovation (e.g. the Urban Energy Systems Project at Imperial College London), and a source of evaluation methods for the initiatives being incubated.**

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