



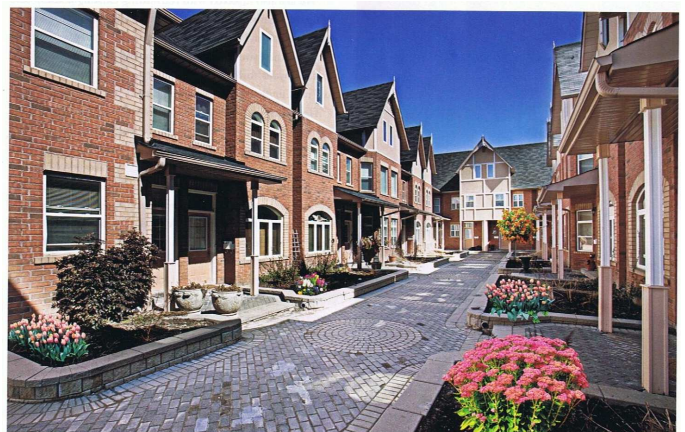
Our Constrained Energy Future Part Two: Reducing Demand for Oil and Gas in Our Cities

The risks of future price and supply shocks for oil and natural gas (see Information Release November 2010) suggest that municipalities take more urgent and substantial steps towards sustainable urban development. This is especially important for Ontario, which imports virtually all of its oil and gas for industry, transportation, and heating.

Because they affect every household, the negative environmental and economic impacts of energy consumption makes conservation of energy an essential and principal tool for the long term well-being of people. Municipal governments play a critical role in enabling conservation to happen. Urban development plans that are approved today will have impacts that can last for a hundred years. Minimizing costs means building our cities and towns as energy-efficiently as possible without delay.

Sustainable city-building is a multi-faceted approach that begins with urban development that is highly compact, such that almost anyone who wishes to can conveniently access all daily destinations, including employment, by walking, cycling or public transit. Importantly, in the relatively harsh Canadian climate, SUDA interprets "convenient" to mean a five-minute walk or less. This will be very important to households that are likely to be faced with gasoline prices two or more times as expensive than today. Approximately 75%-80% of trips in suburban areas today are by car. Even in the face of population growth, failure to significantly reduce the total number of vehicle-kilometers traveled by automobile means a failure to achieve sustainability.

Compact development, in turn, means residential units that are primarily attached homes (row housing) and multi-unit apartment-style construction. These types of housing are also inherently more energy-efficient to heat and cool. While surveys indicate that many people 'prefer' single detached homes, their life circumstances (and that of their older, younger, richer or poorer relations) are often more suited to compact housing forms. The Housing Alternatives Acceptability Study done by SUDA in 2007 shows a high degree of acceptability and flexibility in favour of apartments and attached homes. Municipalities recognize that demographic change is shifting the housing mix, but a much stronger emphasis towards family-friendly multi-unit and row housing suitable for households with children is important for sustainability. SUDA suggests that the imbalance of predominantly single detached housing in suburban areas today will become apparent and unsustainable.



Residences by Arten Development Group

Walkable access to daily destinations means intimately mixing uses in a high density environment by eliminating the separation of non-residential and residential uses as much as possible. For example, ground floors (and second

floors as well) of high-rise residential buildings can be used for most non-industrial non-residential uses, such as shops and offices. Many, if not most, shopping malls can be intensified by adding high-rise or medium-rise residential buildings to the mall property – a symbiotic relationship that supports large and small businesses because it places many more customers within walking distance.

Sustainable city-building is environmentally necessary, not only because it conserves land, but because its lower requirements for travel and for water and material resources dramatically reduces the emission of pollutants and greenhouse gases. Work by SUDA in its Newburg project indicates that overall oil and natural gas consumption reductions of 50% are possible for family-friendly new communities that are both mixed use and over 100 residents and jobs per gross hectare.

Urban areas in south central Ontario are now growing, in part, by infilling and intensifying existing built up areas. Municipalities can take other measures necessary for environmental and economic sustainability, including:

- In built-up residential areas, encouraging accessory units such as basement apartments;
- Requiring much higher floor space indices (ratios of floor space to lot size) for all new construction, including requiring multi-storey construction, reduced building setbacks, the use of shared (public) parking spaces and reduced private parking minimums;
- Where retail areas are planned or to be renovated, requiring a minimum height of four stories (which will normally mean mixing uses within each structure);
- Rehabilitating and restoring derelict and/or contaminated industrial lands to productive urban use;
- Increasing densities for urban development on greenfield lands to at least 100 residents and jobs per gross hectare, in ways that are also family-friendly (e.g. visualize the livability of small European towns, with modern amenities);
- Fast-tracking approval processes for progressive land development applications that are high density (100 or more residents and jobs per gross hectare) and energy-efficient;
- Implementing pricing mechanisms where possible to encourage conservation of energy and development of sustainable building styles;
- Initiating or participating in programs that foster efficiencies in power or water consumption (including pricing programs). Local initiatives can also include water demand reductions through rain-water harvesting for use in gardens, and greywater use for toilets;
- Including impact analyses of higher energy costs in updates of Official Plans and secondary plans;
- Shifting development charges strongly in favour of higher density construction and higher floor space indices;and
- Strong and innovative steps to expand transit services urgently, such that transit is able to take much higher modal shares of daily trips in all communities, within current planning periods.



A number of additional levers to promote energy conservation are suitable for implementation by upper level governments. Measures can include

- Shifting taxation from income to energy consumption (for example, increasing gasoline taxes), with appropriate transitional supports (similar to HST rebate cheques) to reduce hardship for those most vulnerable;
- Increasing taxes on consumption of energy and applying them to improvements in public transit;
- Enabling property taxes to move away from market value and towards favouring compact city-building and transit-friendly development;
- Requiring more efficient urbanization of land, well beyond existing standards (such as Places To Grow legislation's minimum of 50 residents and jobs per gross hectare for development on greenfield lands);

- Implementing more rebate programs for energy-saving retrofits in buildings; this invigorates the economy by reducing the outflow of dollars from Ontario for energy purchases;
- Actively promoting the use of cleaner alternative motor fuels such as electric traction for vehicles, and aggressive promotion of renewable power sources (such as geothermal heating/cooling) for structures;
- Mandating improved energy efficiencies in building codes;
- Motor vehicle registration fees based on kilometers driven and fuel consumption;
- Enabling and fostering efficiency measures for the movement of goods; and
- Ending expansions of highway systems.

SUDA is a registered Canadian charitable organization whose mission is to foster a healthy natural environment through better city-building, by providing information in the Toronto region through outreach, research and analyses, networking and electronic communications. Your financial contributions in support of our work are welcome, and can be made through www.suda.ca.