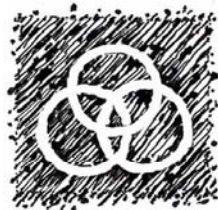


Opportunities for Local Government Action on Energy Efficiency in New Buildings

PART 2: Measures

May 3, 2006



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1.0 Introduction

This document represents Part two of a two-part paper outlining measures that municipal governments in British Columbia can take to influence building energy efficiency in new buildings in their communities. In Part one of the document, we review current demographics context, rationale for municipalities to engage in promoting energy efficiency, legislative context, program planning and leveraging opportunities. Part one also includes a table summary of measures that refers readers to sections in this document for further information.

In this document, we provide more information and references related to the measures identified. All of these measures can be applied in British Columbia to varying degrees. In some cases we have identified measures that can be applied in Vancouver only by virtue of the Vancouver Charter.

Part two is divided into sections loosely categorizing types of measures:

- Policy Measures
- Information
- Education
- Pricing
- Incentives
- Regulatory

Under each category, is a description of the type of measures, legislative authority (where relevant) barriers to implementation, synergies with other types of measures or funding resources and examples from BC where available or elsewhere. Some measures are proposed only and little information is available on implementation.

Taxation measures were originally identified as potential measures for application in BC, but subsequent legal analysis indicated that there was no legislative basis for municipalities to use taxation to promote energy efficiency in new buildings. As such, we have not included information on these measures here.

2.0 Policy Measures

2.1 Civic Building Policies

Description/Goal:

To reduce future operating costs, and to set a positive example for the private sector, many municipalities establish “green” building policies for all new civic building construction. Most opt for a LEED rating system, while some local governments prefer to adopt many of the LEED features for a tailored energy efficient building standard. Often, civic building policies will include provisions to “encourage” similar standards be adopted by the private sector on a voluntary basis.

Barriers:

If municipalities choose to develop their own policy, they will require capacity to do life-cycle costing of projects to compare operating cost savings over the lifetime of the building with the incremental capital costs of a high performance building. Developing a civic building policy will also require some knowledge of energy efficient measures for buildings. However, this is not an issue if a pre-existing program such as LEED is used.

Synergies:

Links well with existing building labeling programs due to readily available standards, training services and technical guidance. Opportunities to leverage funding for the development of new policies and regulations exist (Real Estate Foundation of BC/ VanCity – Green Building Grant Program, BC Ministry of Community Services - Local government planning grant, Affordability and Choice Today program). There are also incentives available for feasibility studies, planning and implementation through FCM.

Examples:

⌘ City of Richmond’s Sustainable “High Performance” Building policy

This policy ensures that all new civic buildings and renovations will be evaluated based on considerations of life-cycle costing and initial investment requirements. This included expanding the previous building policy (which was limited to energy efficiency) to incorporate a broader range of green building factors (water use, air quality, etc.). It was a facilities department initiative, involving planning and policy staff, environmental department staff, and engineering staff. The departments collectively crafted a report to council over the course of a year. The policy applies to all civic buildings greater than 20000 ft and recommends that they pursue LEED Gold certification (minimum LEED silver). Smaller civic buildings are encouraged to still incorporate the same standards, but not necessarily to LEED certification.

http://www.richmond.ca/shared/assets/011905_item210292.pdf

⌘ City of Vancouver Green Building Policy

In July 2004, the Vancouver City Council approved a requirement of LEED Gold for all new civic buildings over 500 square meters. Additionally, these civic buildings must show at least a 30% improvement in energy consumption over the City's current energy bylaw. This Gold standard is currently the highest standard for any municipality in North America. In addition, the Southeast False Creek model sustainable community will have a minimum design standard of LEED Silver, with a target of LEED Gold. Mandatory requirements will be expected for all developments in Southeast False Creek to meet existing City policy.

2.2 Policy Statements in Official Community Plans

Description/Goal:

Some municipalities are opting for high-level policy statements in their OCP Bylaw. This encourages alternative energy generation and/or energy efficiency. Including such wording sets the framework for future bylaws and/or incentives that a municipality may choose to pursue (i.e. density bonus for energy efficiency, lower DCCs for green building practice related to water/sewer infrastructure).

Barriers:

Staff resources to do background work for a proposal to council.

Synergies:

Opportunities to leverage funding for the development of new policies and regulations (Real Estate Foundation of BC/ VanCity – Green Building Grant Program (if partner with non profit)

BC Ministry of Community Services - Local government planning grant, planning and feasibility study funding under the FCM).

Examples:

⌘ District of Salmon Arm - bylaw to amend OCP

Policy statements in the OCP encourage alternative energy sources for new and existing buildings. The measures are strictly voluntary, with “no regulatory demands, standards or expectations by the District.” Their planners suggest that this bylaw could be the foundation for future changes to the Zoning, Subdivision and Servicing, and Development Cost Charge (DCC) bylaws, for example:

- Lowering Development Cost Charges in serviced/ high density areas (see Performance-based Development Cost Charges section for details around DCCs),
- Relaxation of minimum servicing standards (e.g. road widths, and off-site sanitary and drainage requirements), which could be achieved with variances, and
- Relaxation of Zoning Bylaw regulations by way of either variances, or by introducing more flexible use and density provisions (i.e. more mixed uses and density bonuses).

3.0 Information

Examples of information measures include building labeling, the role of energy managers, and promotional materials.

3.1 Building Labeling

Description/Goal:

Building labeling conveys superior energy performance information, adding comparative advantage over other, less efficient buildings. In some cases labeling/certification also entitles the builder to incentives that can limit or eliminate the incremental capital costs of energy efficiency features.

Barriers:

Meeting third party standards can add additional capital costs to construction. The certification/labeling process requires the developer to absorb additional time and financial resources.

Synergies:

Funding and incentive programs may be available. Many building labeling programs are well known and come with training programs for builders.

Examples:

See table on following page.

Program	Sector	Description	Link
Leadership in Energy and Environmental Design (LEED) – BC Adaptation	Commercial/ MURBs (part 3 buildings)	Rates environmental performance of buildings. Significant emphasis on energy efficiency.	http://www.caqbc.org/
Model National Energy Code of Canada for Buildings (MNECB)	Commercial/ MURBs (part 3 buildings)	Cost-effective minimum requirements for energy efficiency in new buildings.	http://www.nationalcodes.ca/mnecb/index_e.shtml
ASHRAE 90.1: Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings	Commercial/ MURBs (part 3 buildings)	Building code and industry standards in commercial construction. 13% more efficient than MNECB. (see Vancouver's Energy Utilization Bylaw).	http://www.ashrae.org/
Commercial Building Incentive Program (CBIP) – (offered through NRCan)	Commercial/ MURBs (part 3 buildings)	A building labeling program insofar as the buyer/renter/lessee is assured of high energy performance. CBIP is 25% more efficient than the MNECB and 12% more efficient than ASHRAE 90.1 2001.	http://oe.nrcan.gc.ca/commercial/financial-assistance/new-buildings/index.cfm
EnerGuide for Equipment and HVAC	Residential/ Commercial	A labeling initiative to promote energy-efficient major household electrical appliances and heating, ventilating and air-conditioning (HVAC) equipment.	http://oe.nrcan.gc.ca/equipment/english/page52.cfm?PrintView=N&Text=N
EnerGuide for Industry	Industry	Interactive measures, tips, return-on-investment analysis and business cases to help energy-wise industries make informed choices.	http://oe.nrcan.gc.ca/eqi/english/index.cfm?attr=0
BuiltGreen BC	Residential (part 9 buildings)	Concentrates on four separate and distinct target areas, of which Energy Efficiency is one (measured by EnerGuide for New Houses labeling). Offers technical advice to builders to help them with certification process.	Contact Jennifer Shaw, Canadian Home Builders' Association of BC at 1-800-933-6777 or 1-800-231-1336), JShaw.home@shaw.ca
R-2000 (NRCan and Canadian Homebuilders Association)	Residential	High performance standard is a series of technical requirements that make new homes 30% more energy efficient than a standard home built to code.	http://r2000.chba.ca/
EnergyStar for New Homes	Residential	Currently a pilot. New homes will be 40% more energy efficient than those built to minimum Ontario building code standards.	http://oe.nrcan.gc.ca/residential/energystar-housing.cfm?attr=4
EnerGuide for New Houses	Residential	Rating system is a standard measure of a home's energy performance. An EnerGuide rating of 80 can result in energy savings of 30-50% over a code-built home in BC.	http://oe.nrcan.gc.ca/residential/personal/new-homes/upgrade-packages/energuide-service.cfm?attr=4
EnergyStar	Equipment	Identifies the most energy-efficient products in their class. Most products are 10 to 50% more efficient.	http://oe.nrcan.gc.ca/energystar/english/consumers/index.cfm?attr=0
Building Owners and Managers Association of British Columbia – Go Green	Commercial	A national recognition and certification program for commercial buildings based on performance standards.	http://www.boma.bc.ca/news.php

3.2 Municipal Energy Manager

Description/Goal:

Energy managers facilitate information and knowledge exchange between municipalities, developers, utilities, and other orders of government. They ensure developers are informed of current and emerging incentives, best practices and innovations, and can often help a developer access incentive programs. An energy manager serves as a “go to” person for developers who are seeking the benefits of energy efficient construction. Energy managers provide information but may also provide education.

Barriers:

Smaller municipalities often lack the capacity to allocate staff time for energy efficiency initiatives. However, some municipalities are allocating a few person/hours/week to advancing energy efficiency (e.g. Dawson Creek).

Synergies:

Through joint federal/provincial programs, some municipalities were recently able to retain full time energy managers, while others allocate a portion of municipal staff person time.

Examples:

⌘ City of Kelowna: Energy Manager/Sustainable Building Pilot Project

The goal of the Sustainable Building Pilot Project is to advance initiatives to promote energy efficiency. The project is funded through NRCan and Fortis BC for \$86,000 over two years and focused on Multi-Unit residential Buildings (MURBs). Goals include:

- three developer workshops,
- a sustainable buildings action plan,
- address barriers, and
- a MURB case study.

The development sector is on board and the first three deliverables have been met. The MURB case study has been stalled. (<http://www.city.kelowna.bc.ca/CM/Page888.aspx>)

⌘ City of Quesnel: Energy Manager

This is a Community Action on Energy Efficiency (CAEE) project involving an 18 month pilot program to advance initiatives to promote energy efficiency in the residential and ICI sectors. It is funded through BC Hydro and NRCan and in kind contribution from the City of Quesnel in the form of office space, etc. The budget is \$150,000 (includes \$15,000 in kind from Quesnel). The goals are:

- address barriers,
- provide information (at the pre-permit stage),
- develop mechanisms to support energy efficiency across all sectors, and
- set up and maintain a “one stop shop” of information.

The one stop shop has been set up and the activities have been initiated in the community. (<http://www.city.quesnel.bc.ca/Departments/caeep/splash.asp>)

⌘ City of Vancouver: Planner 1 and Engineer in Training

The objective of the Planner was to develop green building policy/strategy over 18 months. This has been completed and adopted by Council. The project cost an estimated \$150,000 over 18 months (includes funds for consultancies). The target audience was commercial MURBs and developers.

The City of Vancouver also hired an Engineer in training (EIT) to assist with implementation of a new Green Building Bylaw. The role of this position is to co-ordinate bylaw changes across departments and to develop a metric to measure improved energy performance of

buildings. The position costs an estimated \$62,200 per year (<http://www.city.vancouver.bc.ca/commsvcs/southeast/greenbuildings/>).

⌘ City of Dawson Creek, Development Services

The City of Dawson Creek has assigned development services staff to work on implementing the City's Energy Plan through promoting the BC Solar Hot Water project and other initiatives. The staff is allocating approx. 6-8 hours/week to advance energy efficiency (\$14,400 (1 day/ week) + \$7,500 for other costs). Contact: Emanuel Machado, Development Services, (250) 784-3661.

3.3 Information Programs

Description/ Goals:

Information programs can take many forms (e.g. one on one, brochures, help lines, websites) and can be stand alone or integrated into a broader policy and strategy.

Barriers:

Not Applicable

Synergies:

Municipalities can develop their own information programs or point people in the direction of other programs.

Examples:

⌘ Disseminate energy efficiency information

The pre-development permit meeting is a time for developers to 'feel out' the possibilities associated with a site, and learn of restrictions. This is an ideal opportunity for the planner to share information on energy efficient measures and incentives, as well as garner feedback. When trying to promote innovative approaches to site layout and construction it is important to get in front of the development process. The pre-development permit meeting provides this opportunity. This action would be an excellent companion to a "one stop shop" information resource.

⌘ Environmental Advisory Committees (EACs)

Most municipalities have EACs to help guide decisions pertaining to the city's overall well-being. Municipalities could engage these committees in energy efficiency initiatives like setting up a one-stop information shop, promoting energy efficiency among the private sector, and providing input on the city's development and building policies

⌘ Municipal publications

Municipal publications can include information on consumption patterns, information resources and fuel-efficient habits.

⌘ Information Resources like One Stop Shop

A one-stop shop is an information resource, ideally offered as a station near where permits are issued, and/or online and can offer information on:

- energy efficiency incentive programs and rebates,
- building an energy efficiency home or building,
- how to improve the energy efficiency of your existing home or building,
- alternative energy options like solar and geothermal,
- energy efficiency tips for your home or business,
- energy efficiency products and technologies, and
- contact information.

The one stop shop is best included as part of an Energy Manager's roles, so there is a person available to answer specific questions and encourage more aggressive action.

⌘ Information sharing with real estate boards

Real estate agents are a key point of contact between land vendors and future developers. Thus they could help disseminate information on energy efficiency incentives and measures. There are 12 regional real estate boards in BC, representing 13,500 realtors. The boards represent both new residential property realtors and commercial realtors. Municipalities could collaborate with their regional real estate board to promote higher performance new construction. For a list of regional boards see

http://www.bcrea.bc.ca/about/member_boards.htm.

⌘ G/Rated Portland

The goals of G/Rated are to expand market demand for green building and to make green building practices easier to implement. To achieve these goals, the program includes:

- public education,
- provision of technical resources and assistance such as a Portland-specific LEED guide, research, case studies, and strategies, and
- links to incentive programs offered by local organizations (including energy loans, financial and technical assistance, tax credits and consumer rebates).

4.0 Education

4.1 Building Sector Training

Description/Goal:

Building sector training is an avenue to build knowledge of and confidence in energy efficient practices. Seminars, workshops, and training modules are effective ways to build capacity for energy efficient new construction. A related tool is creating a stakeholder consultation group, comprised of representatives from the development industry. Most municipalities that have successful energy efficiency programs solicited the input and advice of the development community from the outset, thereby learning about the benefits and the pitfalls together.

Barriers:

Lack of resources to organize building sector training and an absence of uptake amongst the development sector.

Synergies:

There are existing training programs already available. As well, some municipalities are currently developing training programs and most are willing to share information and expertise.

Examples:

⌘ Built Green BC/EnerGuide for New Houses

BuiltGreen builders must be members of BuiltGreen BC and take the training course. Builders are also trained in EnerGuide and R-2000. Contact Jennifer Shaw, Canadian Home Builders' Association of BC at 1-800-933-6777 or 1-800-231-1336), JShaw.home@shaw.ca

⌘ Natural Resource Canada's Office of Energy Efficiency Dollars to \$ense Workshops

This program can be promoted by municipalities and offers three informative one-day workshops to help an organization improve their operational efficiency, create a better work environment and reduce greenhouse gas (GHG) emissions that contribute to climate change. The workshops are particularly well suited to industrial/large commercial builders and developers. www.oee.nrcan.gc.ca/workshops

⌘ City of Kelowna, Sustainable Building Program

The program involved two workshops to involve builders in an energy efficient program for new construction. <http://www.city.kelowna.bc.ca/CM/Page888.aspx>

⌘ City of Vancouver: Stakeholder Group of Industry Professionals

The Stakeholder Group helped advise City during the development of its Green Building strategy. The process includes a feedback mechanism for ideas/innovations/potential bylaw updates. The goal of the program was to involve the building sector early, to let them know changes are coming, and to engage them in the process.

<http://www.city.vancouver.bc.ca/commsvcs/southeast/greenbuildings/>

⌘ Green Building Training Modules – City of Vancouver (forthcoming)

The City of Vancouver will be offering print-based training modules to help educate trades, trade schools, developers, and architects about incoming green building standards in Vancouver.

⌘ BC Solar Hot Water Program

Solar BC is working with Northern Lights college in Dawson Creek, the City of Dawson Creek and the Canadian Solar Industries Association to develop a pilot college program to train new solar hot water installers. <http://www.solarbc.org/>

⌘ Scottsdale Green Building Program – Scottsdale, AZ

Scottsdale's program is self-described as consumer-driven, and as such, most of its elements are outreach-related. The exception is expedited plan review. The program elements are:

- Expedited building permit review (most projects reviewed in 50% of the usual time),
- Education including lectures, workshops, and special events,
- Provision of promotional packages, including job site signs, green building logos, brochures, abbreviated green building checklists, and media releases,
- Certification of green buildings,
- A green homeowners' manual, and
- Recognition of participating builders.

An academic review of the program found that it could be improved through stronger incentives and better tracking of the program's environmental impacts.

⌘ Built Green Colorado

This is a voluntary program of the Home Builders Association of Metro Denver with other partners. It uses buyer demand, market education and builder training to encourage green home building. The program is funded by builder member fees and sponsor members. Builders register homes in the program if they qualify by achieving points from those available in a Green Building Checklist. The program includes:

- Technical support and training, including links to other resources,
- Independent verification of builder compliance,
- An awards program, and
- Marketing assistance – lawn signs and information for real estate professionals.

4.2 Training for all Municipal Building Official(s)

Description/ Goal:

A municipalities' building officials serve an independent third party role of monitoring construction for substantial compliance with the B.C. Building Code. Though the Code outlines the minimum standards, a building official educated in high performance buildings can play an important role in information exchange. For example, building officials certified in R-2000 standards (for residential) and/or LEED standards (for commercial and MURBs) can

develop awareness among builders and developers on the advantages of energy efficient measures. Municipalities could consider offering training to its building officials.

Barriers:

Availability of training/ interest of building officials.

Synergies:

Municipal officials can attend workshops by NRCan or other organizations. This is a key point of contact for builders and developers and can influence practices significantly.

Examples:

None were found during research for this project.

4.3 Demonstration Programs

Description/Goal:

Often taking the form of pilot projects, demonstration programs enable learning by doing. Done collaboratively with the development sector, hands-on learning programs give developers, architects, city planners, engineers, and trades-people an opportunity to test new ideas, challenge existing practices, and monitor successes and failures. Demonstration programs are learning opportunities to test the feasibility of an application or practice and then, if successful, incorporate the energy efficient measure into accepted practices.

Barriers:

Finding a willing participant can sometimes be a challenge. Tapping the abundant incentive programs and promotional programs already available can alleviate the additional costs of a demonstration program.

Synergies:

Because they are learning activities, demonstration programs are most effective when involving a wide range of partners/sponsors. Many resources are available, including grant programs, technical expertise, and models of other demonstration programs. A demonstration program would be an ideal task for an energy manager. Part of the energy management tasks would be to engage the building sector, bundle a funding package, promote the demonstration program in the community, and leverage the program's success to solicit additional funding for other programs.

Examples:

⌘ Okotoks – Drake Landing

The Drake Landing Solar Community is part of the Drake Landing housing development by United Communities in the north east corner of Okotoks, Alberta. 52 houses by Sterling Homes are being built without standard natural gas furnaces and will be heated solely by warm water circulating through insulated, underground pipes of a district heating system. The water will be heated by solar energy.

The Drake Landing Solar Community's district heating system is the first major implementation in North America of a proven European technology known as "solar seasonal storage". Solar thermal energy is collected in the summer, stored underground, and

then returned to the homes as heat during the winter.
<http://www.sterlinghomesgroup.com/drake/northamerica.html>

4.4 Development or Building Permit Checklists

Description/Goal:

Builders, as part of the permit process, are required to review and fill out a questionnaire on green attributes and energy-related provisions of their proposed development. The questionnaire provides useful information on a range of “green” measures, including energy efficiency. Although filling out the checklist would be a required component of the process, developers would not be required to implement any of the measures as a component of getting a permit. The checklist is primarily used as a tool to inform developers of options.

Barriers:

Filling out the checklist will add some time to the development process but this is not anticipated to be a major barrier.

Synergies:

N/A

Examples:

⌘ New Westminster

The Rezoning and Development Permit application approval requires developers seeking a DP or rezoning to fill out a "Smart Growth Development Checklist". Section 6 is specific to energy.

<http://www.newwestcity.ca/cityhall/planning/06publications/10Housing/pdf/Smart%20Growth%20Development%20-%20Checklist%202004.pdf>

Contact: Planning Department, 604-527-4532

⌘ Port Coquitlam

Rezoning and Development Permit application approval requires developers seeking DP or rezoning to fill out a “Sustainability Checklist.” Section 4c is specific to construction and design.

http://www.portcoquitlam.ca/_shared/assets/Sustainability_Checklist2040.pdf

Contact: Planning Division, 604.927.5410

5.0 Pricing

5.1 Varied Development Cost Charges (DCCs)

Description/Goal:

Local governments in BC use DCCs levied on new development projects to cover the capital costs of servicing new development. Allowable DCCs include those that directly offset the capital burden absorbed by municipalities to service new development: sewer, water, storm drainage, road and parkland needed to accommodate growth. There are innovative ways municipalities can vary DCCs by geographic area and building type so as to favour both smart growth and high performance green building design. Though the emphasis for this tool is on water and sewer management, energy efficiency can often be bundled with an overall higher performance design, particularly if the builder opts for LEED standards.

Barriers:

The Local Government Act provides the legislative authority for levying DCCs, which can only be charged for the incremental costs of specific servicing infrastructure due to the increased demand associated with a new development. Specific infrastructure includes water, sewer, drainage, and roads. Levies for parkland are also allowable. DCCs cannot be charged for operating/maintenance costs, only capital burden absorbed by the municipality to service additional development. DCCs cannot reflect other sustainability considerations such as air quality, energy consumption, support for transit use, or maintenance of water quality, despite their overall benefit to society. Thus, reduced DCCs for energy efficiency would have to be indirectly linked to the incremental capital costs of providing a development with key services (water, sewer and/or storm infrastructure).

Development cost charges may represent such a small component of development costs that they do not provide a significant driver.

Synergies:

Adopting third-party certification standards (i.e. LEED) can ensure green building standards are met (of which energy efficiency is apart) without taxing valuable staff resources.

Building labeling programs such as LEED and BuiltGreen BC promote measures that reduce water use and manage storm water, thus reducing the overall servicing requirement for a development.

There are many opportunities to leverage funding for the development of new policies and regulations (Real Estate Foundation of BC/ VanCity – Green Building Grant Program, BC Ministry of Community Services - Local government planning grant). There are also incentives available for feasibility studies, planning and implementation through FCM.

For an excellent source of information on how DCCs can be used to encourage smart growth and high performance “green” building design, see “Do development cost charges encourage smart growth and high performance building design?”, a report prepared for West Coast Environmental Law by Coriolis Consulting Corp.

<http://www.wcel.org/wcelpub/wrapper.cfm?docURL=http://www.wcel.org/wcelpub/2003/14083.htm>

Examples:

No implemented examples found.

5.2 Energy Efficient Mortgage

Description/Goal:

Municipalities can encourage credit unions in their community to offer “energy efficient mortgages.” Similar to Location Efficient Mortgages offered in the United States, EEMs would allow homebuyers to borrow more for the purchase of a home based on predicted household savings from energy efficient features. When calculating the maximum borrowing amount, banks consider Gross Debt Servicing ratio (monthly housing costs, including heating/monthly income) and Total Debt Servicing Ratio (total monthly debt/gross monthly income). A homebuyer’s GDS must be below 32% and TDS below 40%. The ideal lending system is one where in calculating the homebuyer’s GDS and TDS, the lender takes into account the estimated reduction in heating costs as the result of an energy efficient system (i.e. geothermal, solar hot water) thereby increasing borrowing power. Ideally, a condition of the additional borrowing power would be that it must be applied directly toward an energy efficient feature (versus more square footage, which would have the opposite intended effect). For information on the Location Efficient Mortgage:

<http://www.locationefficiency.com/>

Barriers:

The Plan requires financial institutions to partner and they may be reluctant.

Synergies:

This is a form of offsetting incremental costs of including energy efficient technologies and can work synergistically with other financing and tax incentives.

Examples:

No examples found at present

5.3 Local Improvement Charge (LIC)

Description/goals:

A LIC is a voluntary, innovative way for municipalities to cover the capital costs of specific improvements to a site or neighbourhood, and then recover those incremental costs by assessing a LIC to the property owner(s) that benefited from the improvement. The LIC shows up as an additional line item on the property owner’s municipal taxes. For example, the incremental costs of upgrading a new home to R-2000 could be covered using LICs. As noted in a Pembina Institute report, “the main advantage of using a LIC program over alternative methods of financing energy efficiency improvements is that it associates the repayment of the cost of efficiency improvements with the building property rather than with the current building owner ... in the case of new buildings, it allows the additional cost

of building to the highest levels of efficiency (e.g., LEED Gold or R2000) to be shared by all owners of the building over time.” The Pembina report recommends LIC programs operate on a cost-recovery basis. As noted by Pembina, the Community Charter does provide the legislative authority for a municipality to borrow the money for an improvement, and recover those funds through LICs, provided the full costs are to be recovered. It appears this could be applied to energy efficient improvements. See “Using Local Improvement Charges to Finance Building Energy Efficiency Improvements A Concept Report,” by Pembina Institute. Available at: http://www.pembina.org/publications_item.asp?id=197

More recent information indicates that municipalities in BC would need Ministerial approval to implement LICs for energy efficiency¹.

Barriers:

Cost calculations may be complicated and municipalities may not have the resources required to implement.

Synergies:

A municipal energy manager could work with the planning department to implement.

Examples:

No examples found.

5.4 Energy Levy (for municipal utilities)

Description/ Goals:

Those municipalities with their own electric utility (Kelowna, Nelson, Penticton, Summerland, Grand Forks) could apply hook-up levies to new buildings that only meet basic building standards, paying the levied funds out to new buildings that meet a minimum energy efficiency requirement (i.e. ASHRAE 90.1-2001).

Barriers:

This approach would require application to the BC Utilities Commission.

Synergies:

This is a form of offsetting incremental costs of including energy efficient technologies and can work synergistically with other financing and tax incentives.

Examples:

No examples found at present.

¹ Information provided by Andrew Pape-Salmon, MEMPR

5.5 Financing Incremental Costs of Energy Efficient Measures

Description/ Goals:

This tool involves a municipality financing the incremental cost of an energy efficient feature (i.e. a ground source close loop system). The municipality would then bill the building occupants over the required number of years for the municipality to recover its initial investment plus a fair rate of return. Occupants could be billed per square foot of space in place of the heating bill from the electric or natural gas utility (with considerable savings). Once the municipality's investment (plus a fair return) is recovered, they could turn the ownership of the system over to the building strata to reap the ongoing, energy-saving benefits. This could also be accomplished by a financing institution offering an energy mortgage.

Barriers:

Municipalities need to be in a position to finance incremental costs. It should be noted there is potential risk: the builder could go bankrupt resulting in bad debt. As well, a municipality's constituents may be averse to the City entering the business of development finance. Alternatively, the municipality could help "broker" similar deals between new building developers and other investment sources (e.g. credit unions or private pension funds).

Synergies:

A municipality is well-positioned to administer this finance system because of billing mechanisms already in place for other services (property tax, water, garbage collection, etc).

Examples:

⌘ Toronto Atmospheric Fund (TAF)

Council allocated \$23 million from a large property sale to start the TAF in 1992. It funds or provides loans to community and City projects meeting its energy- and global warming-related mandate, including:

- Local and global air quality improvement,
- Energy conservation and efficiency,
- Public understanding, and
- Research and technology development.

Projects financed by TAF loans have led to \$17.5 million in cumulative savings to the City over 10 years, and have reduced CO₂ emissions by 225,000 tons – about 50% of the City's total energy-related emissions. It has been a resounding success, at no cost to the taxpayer.

⌘ VanCity Enterprises Energy Mortgage

VanCity Enterprises (VCE), a wholly owned subsidiary of Vancity Credit Union, provides financing for the incremental costs of an energy efficient application. For example, a developer may want to install a geo-exchange system in a new building, yet is not willing to absorb the associated incremental cost (incremental costs without cosmetic appeal are

difficult to pass on to future buyers). VCE will cover the capital cost and set up a loan with the developer, amortizing the loan over 15-25 years.

The developer would include the terms of the mortgage in the disclosure statement provided to unit purchasers. The disclosure statement is a legal document that discloses all aspects of the property. This statement must be agreed to and signed by the unit purchaser.

Typically, upon selling 50% of the units of a new development, the unit owners will form a strata council. At this point, the developer would transfer the energy mortgage to the strata council. The only risk to the developer would be if the units fail to sell.

The mortgage payments are set up so they are similar or less than what the unit owner would pay to their utility. Once the mortgage is fully paid, ownership of the asset is transferred to the strata council.

VCE is interested in working with more developers on energy mortgages. To qualify, they require a sound business case that shows appropriate payback, proof of ability to service debt, and appropriate information in the disclosure statement.

VCE is also interested in working with developers and municipalities on financing a geo-exchange field in an undeveloped part of a municipality where a large-scale system would service all new units in the development area.

This approach has been used in Verdant at UniverCity (SFU lands), <http://www.verdantliving.com/main.html>. For more information, contact Derek Gent, Investment Manager, Vancity Enterprises at (604) 877-7657.

6.0 Incentives

6.1 Density Bonusing

Description/Goal:

Density bonusing is when a municipality permits additional density beyond the zoning allotment, usually in exchange for the provision of an amenity with public benefit. Planning departments can promote energy efficiency by including high performance “green” buildings as a public benefit (linked to environmental/health benefit), and granting additional density for green building measures. Density bonusing is usually only used in a commercial core, where valuable, revenue-generating space is available in sufficient quantity to invite participation by developers.

Barriers:

Provisions for density bonusing should be incorporated into the Zoning Bylaw or the OCP. In the absence of density bonus provisions in the Bylaw, builders can agree to “green” measures at the pre-development stage, but then, upon realizing the incremental costs during the building permit stage, refuse to incorporate such measures, citing the BC Building code as the minimum standard. In addition, the additional density permitted can offset the energy savings of the new features, resulting in an overall larger development, yet no net gain in energy conservation. This approach requires staff training in “green” building measures and allocation of staff time to develop the provisions for inclusion in the appropriate bylaw.

Synergies:

The density bonusing process is an ideal situation to introduce the builder to building certification and incentive programs. Utilizing third party labeling programs alleviates the onus on municipalities to train staff in energy efficient measures.

Examples:

⌘ City of Quesnel

The Quesnel OCP spells out specific conditions under which it will offer density bonuses in some medium density residential areas under Section 3.7.9 (p.16): "Council may consider applications to rezone new areas to allow densities up to 120 dwelling units per net hectare [300 units per net acre] if development meets the following criteria:

- Must be within a five-minute walk (about 250 metres) of the Downtown core or West Quesnel commercial area,
- Must provide amenities that may include public gardens, public plazas, playground equipment, public art, pedestrian and bicycle facilities, and other amenities,
- Primary vehicular access to the development is from a major road that does not require travel through adjacent Low Density Residential Areas,
- Provision of at-grade parking, under-building parking or underground parking, and
- Provides a maximum of three stories of residential use.

Note: at present this does not include energy efficiency, nor do other BC examples.

⌘ Hailey, ID

Hailey allows a 10% density increase if alternative energy provides at least 50% of total requirement for the Planned Unit Development (PUD).

<http://www.haileycityhall.org/building/home.asp>

6.2 Awards

Description/Goal:

Recognizing exemplary practices promotes energy efficient practices, honour's innovative design, and builds a groundswell of support for energy saving buildings. Awards are also opportunities to celebrate success among municipalities, builders, trades people and architects.

Barriers:

None

Synergies:

Can be linked to other organizations awards process and can be an important component of a marketing and awareness program.

Examples:

⌘ CHBA and TD Canada Trust's EnviroHome

An award designation given to a select number of new home projects across Canada. To qualify, each home must be certified to the R-2000 Standard and include additional air quality and environmental features beyond the R-2000 requirements.

<http://envirohome.chba.ca/aboutenvirohome/index.html>

⌘ City of Issaquah, WA Green Builder of the Year Award

Awarded to residential or commercial builders who have demonstrated an outstanding commitment to sustainable development (easily adopted in any municipality).

<http://www.ci.issaquah.wa.us/Page.asp?NavID=325>

7.0 Regulatory

Note: the Legislative Authority for the measures in this section is described for each tool.

7.1 Performance-based Approval Process

Description/Goal:

Planning and building departments can expedite development/building permit application processing if energy efficient measures are included.

Legislative Authority:

There is nothing in the law precluding a performance based approval process, and indirectly, one can find legislative authority for it. Essentially, this might be accomplished by the local government establishing a policy whereby energy efficient building applications would be placed at the head of the building permit approvals line. This would not mean that non-energy efficient applications would be ineligible for approval, therefore it would neither make energy efficiency a requirement nor place additional standards on buildings contrary to the limitations on authority.

With its focus on process and incentives, this is not a classic regulatory tool. It is more a question of City operations - deciding how to prioritize existing staff resources on an operational basis. Further to Section 147 of the Community Charter, the chief administrative officer of the municipality has powers, duties and functions that include “overall management of the operations of the municipality.” The chief administrative officer must also ensure that the policies, programs and other directions of the council are implemented; so there could be further bolstering of such an operational decision, through specific direction from council.

In setting up such a program, a council might be interested in providing additional incentives to encourage energy efficient buildings, through providing free consultation services on how to make a proposal more energy efficient (both Santa Barbara and Issaquah do this in their programs). This expenditure/allocation of additional resources would require planning and approval further to Section 149(d) of the Charter (financial administration position - must expend money in the manner authorized by council) and Section 165 of the Charter (financial plan adopted by bylaw – setting out proposed expenditures).

One of the features of the Santa Barbara program is a reduced check fee for energy efficient projects that qualify under the program. Further to Section 194(2)(d) of the Charter, municipalities are authorized to establish a discount in relation to payment of a fee for a municipal service, use of municipal property or the exercise of authority to regulate, prohibit or impose requirements. There is a similar power given to regional districts under Section 363(2)(d) of the Local Government Act. These powers would seem to open the door for a local government to establish a fee system that might, for example, set up a reduced fee for a building permit, if the building met certain energy efficient criteria.

Barriers:

Requires additional staff resources. Often municipalities already offer expeditious processing as a way to attract development, and it may be perceived negatively to offer a “third tier” of processing turnaround times.

Synergies:

Can be linked with other building permit requirements that promote energy efficiency measures (see City of New Westminster’s “Smart Growth Development Checklist”). Can also link with third party building labeling program to alleviate onus on municipalities to be trained in energy efficient measures.

Examples:

⌘ Innovative Building Review Program - Santa Barbara County, CA
Santa Barbara offers a suite of incentives for energy efficiency buildings:

- Expedited building plan check – within 10 working days,
- Reduction of an “Energy Fee” by 50%,
- Information, advice, and design assistance,
- Links to awards programs, and
- Links to rebate programs.

⌘ Issaquah, WA Preferential Building Permit Review

Preferential building permit review for commercial projects involving LEED, BuiltGreen (residential), or EnergyStar (residential) AND by using minimum of five incentives offered through the City’s incentive program. <http://www.ci.issaquah.wa.us/Page.asp?NavID=325>

7.2 Discounted Building Permit Fees

Description/Goal:

Municipalities may offer discounted Building Permit or other municipal fees for selected buildings under Section 194 of the Community Charter.

Legislative Authority:

As above.

Barriers:

The Permit fees may represent such a small portion of development costs that they are not a sufficient incentive to developers.

Synergies:

Could be linked with preferential review of energy efficient buildings.

Examples:

See Issaquah above

7.3 Minimum Energy Performance Bylaw

Description/Goal:

Establishing a bylaw that requires minimum energy performance for buildings (i.e. ASHRAE 90.1) levels the playing field for builders while ensuring new construction includes energy efficiency provisions. Vancouver's Building Bylaw requires all new buildings to be built to ASHRAE 90.1 2001 standards.

Legislative Authority:

The legislative authority given to most municipalities in the province currently precludes the passage of a minimum energy performance bylaw for buildings, since the municipal exercise of authority under Section 8(3)(l) of the Community Charter [buildings and other structures], which in relation to bylaws that establish building standards is a concurrent authority listed under Section 9(1)(d) of the Charter, is limited by Section 53 of the Charter to an exercise of authority "...for the health, safety or protection of persons or property." Since a locally established energy efficient standard would constitute a building standard additional to the BC Building Code and not related to health, safety or the protection of persons, it would go beyond a municipality's authority to regulate in relation to buildings.

The City of Vancouver has explicit legislative authority to establish an energy efficiency standard. Under the Vancouver Charter, at Section 306(w), Council may make bylaws, (w) for adopting by reference in whole or in part and with any change the Council considers appropriate any codes, standard or rule relating to fire safety or energy conservation or affecting the construction, alteration or demolition of buildings, either in place of or in addition to any regulations provided for in this Part.

Barriers:

The main barrier to this tool is inconsistency with the BC Building Code and therefore municipalities do not have the legislative authority at present. One way of trying to overcome this obstacle is for a group of municipalities to submit a resolution to the UBCM calling for the Minister of Community Services to grant concurrent authority to municipalities to enact energy efficient requirements for new construction in addition to those in the BC Building Code. Another barrier is a potentially resistant development sector. However, in Vancouver's experience, this was only a problem at first; once builders realized the standards are very achievable, they supported the measure. For communities competing for development with neighbouring municipalities, additional building requirements can be viewed as a disadvantage in attracting development investment. For this reason it is a good idea for municipalities of a region to agree to mutually-support energy efficient measures

Synergies:

Municipalities could establish a minimum energy performance policy for new buildings on properties that require rezoning (see Rezoning in Incentives). Links well with building labeling programs due to readily available standards and technical guidance.

Examples:

⌘ City of Vancouver's Energy Utilization By-law

Requires all Part 3 buildings to meet ASHRAE 90.1 – 2001 (Energy Standard for Buildings Except Low-Rise Residential Buildings).

<http://www.city.vancouver.bc.ca/commsvcs/southeast/greenbuildings/>

⌘ City of Vancouver's New Buildings Bylaw

The City is undergoing bylaw review and update for all Part 3 buildings. The proposed bylaw changes are based on LEED Certified/Silver equivalency. This approach gives the builder the option of pursuing LEED certification. This building standard will be performance based, which eliminates liability for the City. Furthermore it encourages builders to be innovative in meeting building code equivalencies. The challenge is there may be a technology/material/trade expertise shortage until the market adjusts. The City is developing education modules for the development sector (see Education section). Developers will require code consultants for showing equivalencies. The City will require staff trained to sign off on code equivalencies.

⌘ Pleasanton, California's Green Building Ordinance

Requires new civic and commercial projects over 20,000 square feet in size to incorporate LEED green building measures. Other types of projects, such as residential projects, are currently encouraged to incorporate green building measures. Also, as an incentive, the City will reduce scope of "compliance review" (itself required by bylaw to conform to LEED standards) if the applicant registers with the US Green building council with the intent to LEED certify. <http://www.ci.pleasanton.ca.us/pdf/greenbldg.pdf>

7.4 Service Area Bylaw

Description/Goal:

This type of bylaw establishes service areas for particular types of energy services (e.g. hydronic heating systems to ensure ease of retrofitting to community energy systems).

Legislative Authority:

The legislative authority for establishing a local area service is Section 211 of the Community Charter. According to Section 211(1), this can only be done by the methods of a petition in favour (s. 212), a counter-petition (s. 213), or assent of local electors in the local service area (s. 214). Each method is described more particularly in those respective sections. The bylaw establishing the local service area must describe the service, define the boundaries of the service, and identify the methods of cost recovery, including whether it will be recovered by a general property tax (Section 211(2)). If the municipality proposes to enlarge or reduce the local service area, it must again follow one of the procedures for obtaining elector approval from the area to be included or excluded.

The City of North Vancouver bylaw is a good example of how a local service area may be set up.

Barriers:

May be perceived as too prescriptive in terms of technology.

Synergies:

Enabling measures which support future energy efficient developments. If a municipality wishes to pursue a district energy system there are planning funds available.

Examples:

⌘ City of North Vancouver Hydronic Heat Energy Service Bylaw 2004, No. 7575

This Bylaw establishes a service area for hydronic heating, defined by geography and land use intent. The Bylaw requires all new or retrofitted buildings to have hydronic space and water heating systems compatible with and connect to a future district heating system. See CNV Bylaw #7575 > <http://www.cnv.org/c//apps/Bylaws/>

7.5 Development or Building Permit Requirements

Description/ Goal:

Granting of a development or building permit is linked to deployment of energy efficiency measures.

Legislative Authority:

With the exception of Vancouver, the authority of local governments to establish guidelines for a development permit area that include energy efficiency requirements for buildings, is dubious, or at best, quite limited. Development permit area guidelines, which must be set out in the OCP or zoning bylaw, are the basis upon which local governments are authorized to make decisions on whether to grant or refuse a development permit; therefore, establishing decision criteria for development permits that exceed a municipality's powers would be open to challenge that a development permit was refused on grounds that went beyond the local government's planning authority.

Currently (as discussed above under Minimum Energy Performance Bylaw), the municipal power to establish building standards beyond Building Code requirements is limited to passage of concurrent authority bylaws for the health, safety or protection of persons or property, under Sections 8, 9 and 53 of the Community Charter. Since energy efficient considerations do not fall within this limited scope of authority, they would be *ultra vires*, whether as direct building standards, or as development permit guidelines acting in practice as additional building standards.

The most that a local government would appear legally able to do is to outline non-mandatory guidelines, or statements of what is desirable, in keeping with OCP objectives. This is what Victoria did in drafting its Dockside Green guidelines. Through the use of defining language such as "must", "will" and "shall", it has specifically tagged what guidelines are mandatory and cannot be negotiated; and for other guidelines, it has used the language of "should". Notably, all statements in the DP Guidelines regarding LEED standards are framed as "should" guidelines. Note, however, that in the Master Development Agreement between the City and the developer, the developer has posted a financial security that the City may have recourse to, if the commitments of the development are not met by the developer. (Dockside Green Development FAQs, City of Victoria website)

In addition, DPA Guidelines might establish energy efficiency considerations that do not trample into unauthorized building standards. For example, for the purposes of establishing objectives for the “form and character” of an intensive residential development, or a commercial, industrial or multi-family residential development, local governments can establish requirements vis-à-vis “landscaping, and the siting, form, exterior design and finish of buildings and other structures,” each of which might have some effect on energy efficiency. However, for commercial, industrial or multi-family residential developments, while a development permit may include requirements respecting the character of the development, these must be limited to the general character of the development and not to particulars of the landscaping or of the exterior design and finish of buildings and other structures.

The authority to establish a development permit area for “preservation of the natural environment” is a power that is intended to be limited to protecting specific features within a DPA – bluffs, gullies, rock outcroppings etc. – as opposed to achieving more general environmental objectives such as the protection or management of the cutting of a forest that spans a significant tract of land. See *Denman Island Local Trust Committee v. 4064 Investments Ltd.* (2001), 96 B.C.L.R. (3d) 253 (C.A.).

The Vancouver Charter Section 565A authorizes council to require a development permit, and provides that it may be time limited and subject to conditions. Unlike the Community Charter, there are no limitations on the kinds of conditions authorized.

Barriers:

Staff time is required to establish the questionnaire and establish requirements.

Synergies:

This tool is an excellent opportunity to inform builders of labeling programs, incentives, education resources, and best practices, and innovative approaches of builders in other jurisdictions.

Examples:

⌘ Green Points Program – Boulder, CO

Boulder’s program is a requirement, in this case applying to new residential construction or renovations over 500 sq. ft. In order to receive a building permit, the design must incorporate features corresponding to a certain number of points in the Green Point Checklist. Boulder provides information on some construction practices, and links to green certified professionals.

7.6 Energy Bylaws

Description/Goal:

A bylaw that requires a specific energy efficiency application in all new buildings (i.e. solar hot water systems). Alternatively, the bylaw could require all new buildings to be solar hot water ready (at a very small incremental cost to the builder at the time of construction).

Legislative Authority:

With the exception of Vancouver, the legislative authority given to municipalities in the province currently precludes the passage of a minimum energy performance bylaw for buildings, since the municipal exercise of authority under Section 8(3)(l) of the Community Charter [buildings and other structures], which in relation to bylaws that establish building standards is a concurrent authority listed under Section 9(1)(d) of the Charter, is limited by Section 53 of the Charter to an exercise of authority "...for the health, safety or protection of persons or property."

It is extremely unlikely that a municipality or a court would accept an argument that a requirement for an energy efficiency application (e.g. installation of a solar hot water heater, is sufficiently related to "health and safety" to qualify as a legitimate exercise of this authority) even if one attempted to cast a broad argument that avoiding thermally generated heat reduces climate change risks or means better air quality for the health of the community's citizens.

Regional districts under the authority of Sections 693.1 and 694 of the Local Government Act are similarly restricted to passing building bylaws limited to being for the "health, safety or protection of persons or property." They can only do so as a concurrent authority with the province, and they can only do so if they have first decided to provide a building inspection service in the regional district.

As noted above, the City of Vancouver on the other hand, has explicit legislative authority to establish an energy efficiency standard. Under the Vancouver Charter, at Section 306(w), Council may make bylaws, (w) for adopting by reference in whole or in part and with any change the Council considers appropriate any codes, standard or rule relating to fire safety or energy conservation or affecting the construction, alteration or demolition of buildings, either in place of or in addition to any regulations provided for in this Part.

Barriers:

The development sector may be resistant. This can be addressed by bundling the bylaw with information on incentive programs. An energy manager can also help with this. In addition to BC Building Code standards.

Synergies:

Links well with building labeling programs due to readily available standards and technical guidance. Opportunities to leverage funding for the development of new policies and regulations particularly those related to specific technology deployment exist.

Examples:

⌘ Barcelona, Spain, Solar Thermal Ordinance (Solar Hot Water)

The Solar Ordinance affects newly built, rehabilitated and fully reformed buildings and those seeking to implement a change of use, with a forecasted volume of sanitary hot water demand equal to an average annual energy consumption of over 292 net mega joules (MJ). Between Aug 2002 and December 2004, 327 buildings affected, 24,531 new square metres of solar heat-capture surface area (an increase in 1400%), producing estimated energy savings of 19,625 MWh/year, 3,451 tonnes of CO₂e emissions per year.

Monitoring conducted through the Barcelona Energy Plan.

<http://www.barcelonaenergia.com/eng/operations/ost.htm>

⌘ Solar Access Policies – City of Sarnia

Unplanned development can lead to shading, rendering a solar energy system ineffective and/or minimizing the heating benefits of passive solar gain (free heat and light). The City of Sarnia established the policy, but has not yet implemented it in the zoning bylaw. There are no regulations or performance standards yet. The City encourages developers to look at that solar access/capture design at the development permit stage on a voluntary basis.

7.7 Rezoning

Description/Goal:

When developers want to develop a parcel for purposes other than its zoned use, rezoning is required. A municipality can stipulate additional requirements in exchange for rezoning (i.e. energy efficient building features). Another way to secure energy efficient features in exchange for rezoning is a restrictive covenant, which is essentially a private contract between the municipality and the developer. Section 219 of the Land Title Act permits the use of restrictive covenants. A covenant tailored to include energy efficiency provisions could ensure the structure is built on the land in accordance with the terms of the covenant. The covenant could include the energy efficient features the municipality requires of that building (i.e. ASHRAE 90.1, R-2000, etc.).

Legislative Authority:

Zoning powers fall under the *Local Government Act*, and the Act provides no legislative basis for a local government to stipulate additional requirements for granting a rezoning. Local governments therefore do so at peril of challenge.

In fact, the courts have recently held that while a local government may bargain in a limited way (require amenities or affordable housing) in exchange for land density (further to the “density bonus” provisions set out in Section 904 of the *Local Government Act*), a local government is not authorized to bargain, or make deals, in exchange for rezoning. The decision in *Lambert v. Resort Municipality of Whistler*, 2004 BCSC 342 struck down a rezoning where the court found that the municipality had done just that - granted the rezoning as a bargain in exchange for the provision of certain community amenities.

By analogy, it therefore appears that a local government has no authority to stipulate additional requirements, such as energy efficient features, in exchange for rezoning. It is suspected that the rule would apply with even more force, if the condition was one that the local government was otherwise unauthorized to require or set, as in the case of an energy efficient feature (Vancouver being the exception – see discussion of *Energy Bylaws*). A local government is not authorized to do indirectly that which is not authorized to do directly.

Looking at other case law, however, it appears that local government staff do have the power to require a rezoning applicant to prepare a “satisfactory development plan” and to provide a Section 219 (*Land Title Act*) restrictive covenant and the builder’s agreement to abide by the development plan, in order to secure the local government staff’s favourable recommendation to Council for its consideration of the zoning: *Burnaby (City) v. Racanelli* (1998), 45 M.P.L.R. (2d) 117 (B.C.S.C.). Such a “bargain” cannot contractually bind Council to provide the rezoning if the covenant is provided, but the court does apparently allow this bargaining by staff for developers to obtain the staff’s blessing on a project.

Barriers:

Lack of staff expertise in energy efficiency; however this can be overcome by using a third party certification system. Staff resources to draw up covenants may also be an issue. However, interested municipalities could pool resources and come up with a “boilerplate” covenant specific to energy efficient new construction.

Synergies:

Opportunities to leverage funding for the development of new policies and regulations.

Examples:

⌘ The City of Vancouver- Zoning

The City of Vancouver now considers green building a “public benefit”, so the City can request green building measures in exchange for rezoning. The City ensured this was allowable by clearing through their law department. Municipalities considering this measure may want to do the same. For the City to consider a rezoning application, the developer has to show how rezoning benefits the public. Ways to do this include providing public good (i.e. green building design) or public amenity (i.e. daycare, parkspace). The City’s legal department established green building as a public benefit, so this is one more way developers can show public benefit to secure a rezoning permit.