

Memo



Date: January 31, 2011
File:
To: City Manager
From: Mo Bayat, Director, Development Services
Subject: Solar Hot Water Ready Regulation

Recommendation:

THAT Council receives, for information, the Report from the Director, Development Services, dated January 31st, 2011;

AND THAT Council directs staff to request that the Ministry of Public Safety and Solicitor General include the City of Kelowna on the list of "Solar Hot Water Ready" local government jurisdictions.

Purpose:

The Province of British Columbia has developed a new 'Solar Hot Water Ready Regulation' in partnership with Solar BC and in consultation with the development industry. This new regulation will only apply in local government jurisdictions that request inclusion through a Council resolution.

Background:

In jurisdictions where the regulation is applicable, all new construction of single family homes will be required to accommodate future installation of a solar hot water system.

Solar Hot Water Ready construction is defined for the purpose of the initiative as a building that has a conduit in place for future plumbing requirements and has an area designated for a solar collector to facilitate installation of a solar water heating system at a later date.

Solar Hot Water Ready does not include the enforcement to install solar panels, additional hot water storage tanks, the actual plumbing or the pump and control unit needed for solar hot water generation.

Making a home Solar Hot Water Ready is easier and less expensive during initial construction than it is post construction. When a homeowner makes the decision to install the solar hot water heating system, a few preparations during initial construction can substantially reduce costs during final installation, and will also help ensure that the system provides maximum energy savings.

Making a house solar ready up front will add approximately \$200 to an average house construction cost and up to \$500 to a large and complex house (including labour) in comparison to an estimated cost of \$1500 to \$3000 for the same scope of work in a finished house.

With British Columbia's varying geography, not all communities will benefit from solar installations. Supporting, rather than enforcing, sustainable innovation in constructions allows interested B.C.

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communities the opportunity to reduce their carbon footprint and contribute to the green economy. Kelowna, known as a sunshine city is considered by SolarBC to be a solar community and would benefit from being a solar ready community. To make the new homes Solar Hot Water Ready help to support our community Green House Gas reduction goals.

Internal Circulation:

S. Bagh, Director, Policy & Planning
M. Kam, Sustainability Coordinator

Existing Policy:

OCP 2020 Policy 7.6.1:

The City will support the reduced use of fossil fuels in buildings by encouraging renewable energy supplies, district energy systems and energy efficient technologies in new and existing buildings. By working with senior government partners, regulated utilities and others, the City will lead through example and strive to meet the BC Climate Action Charter targets for the reduction of GHG emissions from municipal infrastructure.

Financial/Budgetary Considerations:

There are no financial implications to the City of Kelowna.

Personnel Implications:

The increased workload can be managed and delivered by existing staff and will not require any additional resources.

External Agency/Public Comments:

On February 1, 2011 the Director of Development Services presented the details of 'Solar Hot Water Ready Regulation' and this recommendation to the Canadian Home Builder Association's monthly general membership meeting as part of a greening the building code presentation. There were over a hundred members in attendance and the recommendation was well received.

Considerations not applicable to this report:

Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Community & Media Relations Considerations:
Alternate Recommendation:

Submitted by:



M. Bayat, Director, Development Services

Approved for inclusion:



J. Vos, General Manager, Community Services

CC: S. Bagh, Director, Policy & Planning
S. Gambacort, Director, Land Use Management
R. Cleveland, Director, Infrastructure Planning
S. Fleming, City Clerk, Legislative Services
M. Kam, Sustainability Coordinator, Community Planning
D. Patan, Building & Permitting Branch Manager, Development Services



Ref: 161011

To: All Local Governments

April 12, 2010

RE: SOLAR HOT WATER READY REGULATION

Dear Local Government Official:

The Province of BC has developed a new 'Solar Hot Water Ready Regulation' in partnership with Solar BC and in consultation with the development industry. This new regulation will only apply in local government jurisdictions that request inclusion. Where the regulation is applicable, all new single family homes will be built to accommodate future installation of a solar hot water system for water heating.

If your local government wishes to be included in the Solar Hot Water Ready Regulation, please **respond no later than June 1, 2010** with a resolution from your Council or Board stating your wish to be included in the list of local government jurisdictions that will be 'Solar Hot Water Ready'.

Once all local governments have responded, the new regulation will become effective in Summer/Fall of 2010. The resolution may be sent to:

Building and Safety Standards Branch
Ministry of Housing and Social Development
PO Box 9844 STN PROV GOVT
Victoria BC V8W 9T2
Email: Building.Safety@gov.bc.ca
Tel: 250 387 3133 // Fax: 250 387-8164

Thank you for your interest in this important issue. For further information, please feel free to contact Jun'ichi Jensen at 250 356-1928.

Yours truly,

Jeff Wasey
Executive Director
Building and Safety Policy Branch

Attachment

SOLAR HOT WATER READY REGULATION DRAFT

Definitions

- 1 In this regulation, the terms in *italics* have the same meaning as in the 2006 British Columbia Building Code.

Application

- 2 This regulation is applicable in the following local government jurisdictions:

Solar collectors for a solar domestic hot water system

- 3 (1) Subject to subsection (2), a conduit run and an area of not less than 7.29 square metres designated for future installation of solar collectors for a solar domestic hot water system must be incorporated in new construction of *buildings of residential occupancy* containing not more than one *dwelling unit*, excluding *secondary suites*.
- (2) Subsection (1) does not apply where it can be shown that conditions exist that do not accommodate effective use of solar hot water heating.

Structural Requirements

- 4 (1) Structural members of areas referred to in Section 3 (1) must be designed to accommodate the anticipated load, but no less than an additional load of 0.2 kpa in addition to design loads required by the British Columbia Building Code.

Conduit runs

- 5 (1) At least one straight, continuous, conduit run must be provided that extends from the area directly adjacent to the *building's* primary *service water heater* to
 - (a) an accessible attic space adjacent to the roof area designated for installation of solar collectors for a solar domestic hot water system,
 - (b) the roof area designated for installation of solar collectors for a solar domestic hot water system, or
 - (c) the exterior wall surface directly adjacent to the area designated for installation of solar collectors for a solar domestic hot water system.
- (2) A conduit described in subsection (1) must
 - (a) be accessible at both ends,
 - (b) be capped or sealed at both ends to prevent water ingress and air leakage,
 - (c) be identified by markings that are permanent, distinct and easily recognized, and
 - (d) have a minimum inside diameter of 50mm if two conduit runs are provided, or 100mm if only one conduit run is provided.