

Solar Now: **Guide** to Installing Solar PV on Single Family Homes in Metro Vancouver

- Supported by Clean Energy Canada (Solar Now project)
- Timeline: In development August – December 2016
- Release to coincide with opening of solar PV installation at Creekside Community Centre (Vancouver) in early 2017



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Short guide outlining basic steps and FAQ

- Why solar?
- Financial benefits and declining costs
- Improved home value
- An increasing number of installations
- How panels work
- Key questions for site suitability
- Steps to take to successful installation



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In Metro, variability around:

- Permits required
- Organization issuing electrical permit
- Sketches or drawings required
- Need for structural report
- Processing time
- Cost

Municipality	Electrical Permit Issued By:	Building Permit?	Drawing/Sketch?	Structural Report?	Estimated Processing Time (weeks)
Anmore	BCSA	Yes	Yes	Yes	4 - 8
Belcarra	BCSA	Yes	Yes	Yes	Variable
Bowen Island	BCSA	Possibly	Yes	No	Variable
Burnaby	Municipality	Yes	Yes	Yes	6 - 8
Coquitlam	BCSA	No	No	No	Non applicable
Delta	BCSA	Yes	Yes	Yes	2 - 3
Langley City	BCSA	Yes	Yes	Yes	5 - 6
Langley Township	BCSA	Yes	Yes	Yes	1
Lions Bay	BCSA	Yes	Yes	Possibly	1
Maple Ridge	Municipality	Possibly	Yes	Yes	3 - 4
New Westminister	BCSA	Yes	Yes	Yes	2 - 3
North Vancouver City	Municipality	Yes	Yes	Possibly	1 - 4
North Vancouver District	Municipality	Yes	Yes	No	4 - 12
Pitt Meadows	BCSA	Possibly	Yes	No	< 1
Port Coquitlam	BCSA	Possibly	Yes	Yes	Variable
Port Moody	BCSA	Yes	Possibly	Yes	2 - 4
Richmond	BCSA	Yes	Yes	No	Variable
Surrey	Municipality	Yes	Yes	Yes	4 - 6
University Endowment Lands	BCSA	Yes	Possibly	No	4 - 6
Vancouver	Municipality	Yes	Possibly	Yes	> 4
West Vancouver	Municipality	Yes	Yes	No	4 - 6
White Rock	BCSA	Yes	Yes	Yes	8

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Table 1: Estimated Municipal Permitting Costs for 4 KW Solar Photovoltaic System Valued at \$12,000

Municipality	Total Permit Costs	Municipality	Total Permit Costs
Anmore	\$875	North Vancouver City	\$795
Belcarra	\$800	North Vancouver District	\$1,055
Bowen Island	\$725	Pitt Meadows	\$740
Burnaby	\$930	Port Coquitlam	\$710
Coquitlam	\$620	Port Moody	\$855
Delta	\$785	Richmond	\$810
Langley City	\$770	Surrey	\$590
Langley Township	\$670	University Endowment Lands	\$760
Lions Bay	\$830	Vancouver	\$980
Maple Ridge	\$590	West Vancouver	\$970
New Westminster	\$765	White Rock	\$790

 Need for structural report can add an extra \$500-2,000 in costs

Region-wide (Province-wide) Best Practice?

- Best practice – would improve simplicity, consistency and speed of permitting process while addressing municipal concerns:
 - Concern over additional weight on the roof (particularly in areas there is snow in winter)
 - Development permits are usually area-specific and include design guidelines
 - Availability of in-house resources to process electrical permits
 - Size of installation and building to be installed on (and new vs. reno)
 - The need to cover organizational costs around issuing permit
- Possible solution:
 - Guidance on best practice that addresses the above for all climate zones in BC
 - Two different approaches – Coquitlam and Colwood

Region-wide (Province-wide) Best Practice?

- E.g.

“The City of Coquitlam does not require a permit to install solar panels on single family homes.

We have determined that our Building Bylaw, Zoning Bylaw, and the BC Building Code do not provide language that allow us to regulate these components and their installation.

We define them as retail appliances that are installed in/on a private residence.... Therefore, we will not require applications, or perform plans examination or inspections. Electrical permits in Coquitlam are governed by the BC Safety Authority.”

Region-wide (Province-wide) Best Practice?



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Policy for the Installation of Solar Photo Voltaic Panels

Solar PV panels may be installed on the roofs of buildings within the City of Colwood without a building permit provided the installations comply with the following criteria, (See photo below)

- 1) The PV systems distributed weight does not exert a load greater than 24.4 kg/sq. M (5lbs/sq. ft.) on the roof,
- 2) The system connection to the roof results in the each point of connection being less than 22.5 kg (50lbs),
- 3) The PV panels are flush mounted on existing construction in an approved manner per the manufacturers installation instructions,
- 4) The mounting structure is a product specifically designed to mount solar panels to the roof of interest and
- 5) The solar panels are located a minimum 600mm (2 ft.) below the roof ridge (sloped roofs) and a minimum 450mm (1.5 ft.) from the roof edges.

Region-wide (Province-wide) Best Practice?



Typical roof mounted Photovoltaic panel installation not requiring a building permit.

Note: An electrical permit issued by the British Columbia Safety Authority is required.

All other types of PV panel installations may require a building permit or other municipal approval.

Please contact the Building Inspector with the specifics of your proposed installation.

<https://colwood.civicweb.net/document/64931/Policy%20for%20the%20Installation%20of%20Solar%20Photo%20Voltaic.pdf?handle=813C788846D347C7A357207F1F3117EF>

Solar Now Guide – Stay Tuned

- We will send out a notice via our e-news and other channels when the guide is release.
- Look for it early next year.



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