

BC Hydro Net Metering Program

Alevtina Akbulatova

November 2014



FOR GENERATIONS

As presented at webinar on November 20, 2014

Agenda

- Net Metering Program: in brief and numbers
- Billing: how it works
- Recent changes
- What's next



Net Metering (NM) at BC Hydro

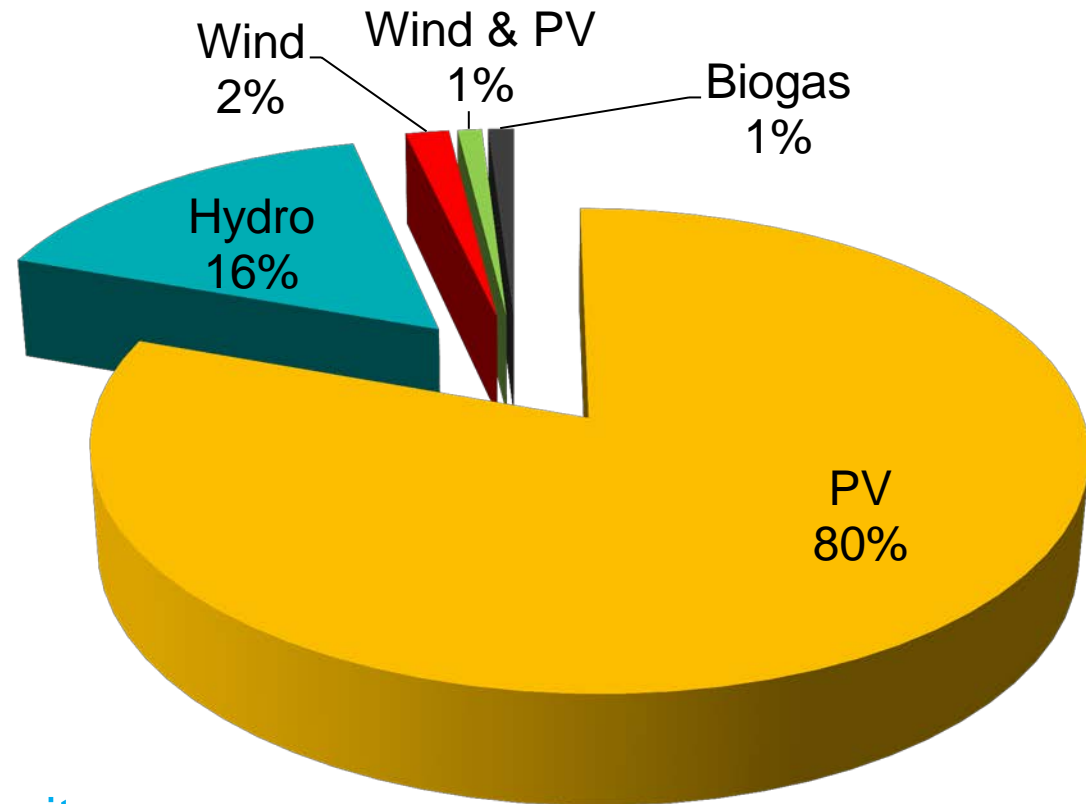
- Started in 2004
- Tariff Rate Schedule 1289
- Eligibility:
 - Residential and small commercial customers
 - Up to 100 kW
 - Clean and renewable energy source
- Open application window – come when you are ready
- Simple process, no cost to interconnect to the grid*
- Requires full load displacement before payment (annual basis)
- Annual excess electricity is paid at a rate of 9.99 cents/kWh
- Technical requirements = DGTR/100
- Electricity flow is measured by Smart Meter

BC Hydro Net Metering in numbers

As of November 2014:

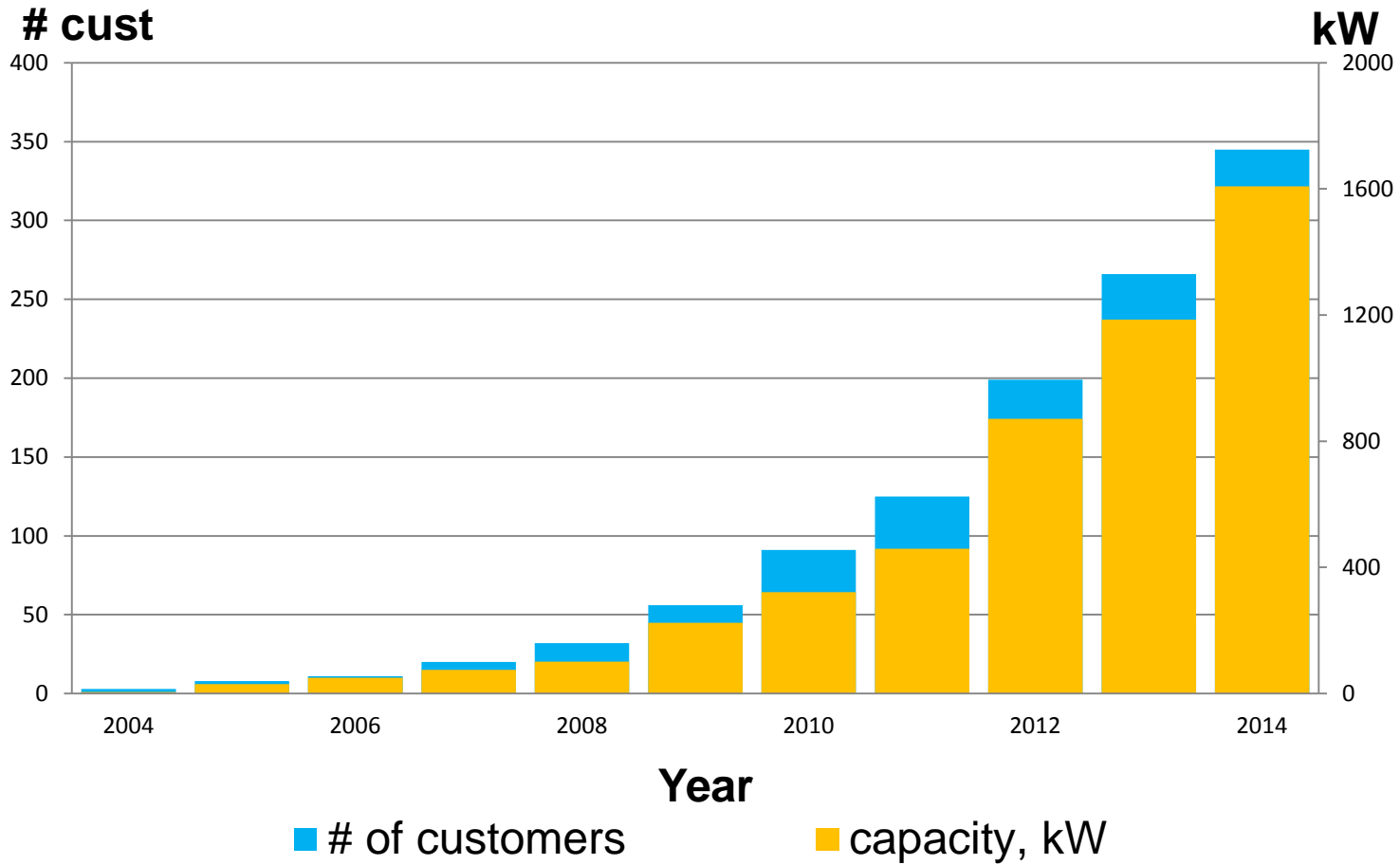
371 NM customers – 2 MW installed capacity:

- 345 solar PV
- 12 Hydro
- 9 Wind
- 4 Wind & PV
- 1 Biogas

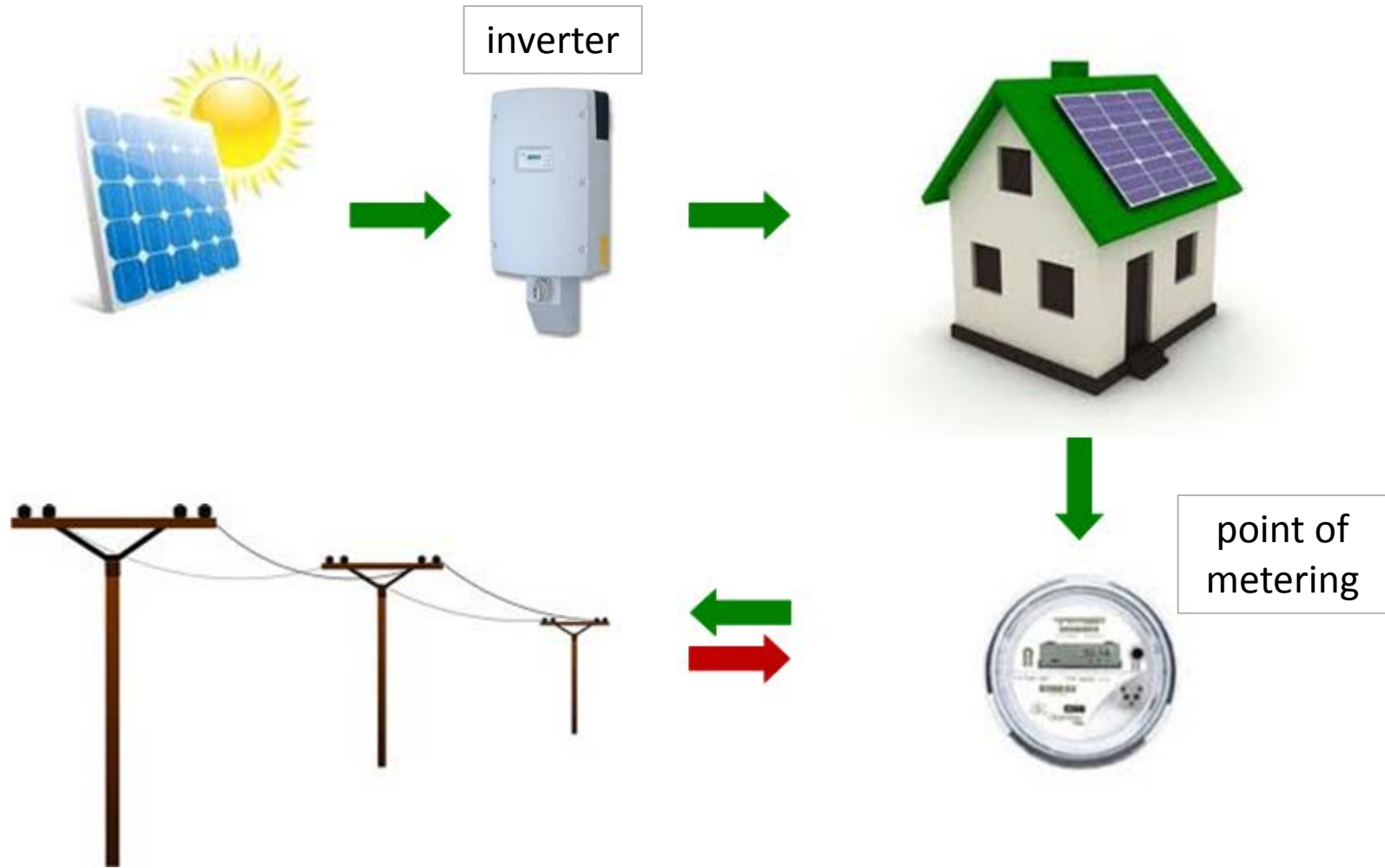


By Installed Capacity

Solar PV Growth in BC



What is Net Metering?



Smart Meters

ELECTRICITY CONSUMPTION



When '01' appears in the top left corner, the smart meter shows your total electricity consumption since the meter was installed - measured in kilowatt hours.

A kilowatt hour is a unit of electrical consumption equal to the amount of electricity needed to burn ten 100-watt light bulbs for one hour.

ELECTRICITY GENERATION



When '02' appears in the top left corner, the smart meter shows the net amount of electricity generated at your home or business if you have small generating units such as solar panels.

BC Hydro able to offer programs, enabling you and your community to generate power for your own use and sell excess electricity back to the BC Hydro.

NM Billing

- Inflow (net consumption)
- Outflow (net generation)
- Billed on net of inflow and outflow:
 - If *inflow* > *outflow* -> charged for *inflow* – *outflow*
 - If *outflow* > *inflow* -> bill \$0, *outflow* – *inflow* -> credit to Customer Generation account



NM Billing – Net Inflow



Prepared For
JOHN SOLARIS
111 WELLKNOWN ST
VICTORIA BC V8Z 1P3

Billing Date
Oct 09, 2014
Pay By
Oct 31, 2014

Account Number
XXXXXXX
Please Pay
\$99.16

Invoice Number:
XXXXXXXXXX

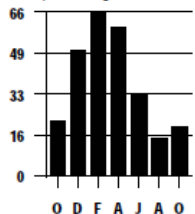
Meter Reading Information

Electric:
Meter # **1234567**
Aug 08 16000
Oct 07 17228
61 days **1228**

Electric Outflow:
Meter # **1234567**
Aug 08 1100
Oct 07 1257
61 days **157**

Next meter reading
on or about Dec 04

kWh Daily Average Usage
per Billing Period



Daily Average Comparison
Oct 2013 22 kWh
Oct 2014 20 kWh

Previous Bill

Balance payable from your previous bill 68.59
Thank you for your payment Aug 14, 2014 68.59CR

BC Hydro

Balance from your previous bill **\$0.00**

Electric Charges

Aug 08 to Oct 07 (Residential Conservation Rate 1101)
Basic Charge: 61 days @ \$0.16640 /day 10.15*
Energy charge:
Step 1: 1061 kW.h @ \$0.07520 /kW.h 79.79*
Rate Rider at 5.0% 4.50*
* GST 4.72
\$99.16

Customer Generation Account (Net Metering Rate 1289)
Previous Balance: 10 kWh Current Balance: 0 kWh

Taxes

The following is a summary of taxes billed to your account since your last invoice:
GST at 5 % on 94.44 4.72

Balance payable \$99.16

Thank you for keeping your account up to date.

NM Billing – Net Outflow



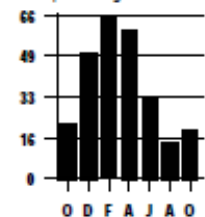
Prepared For
JOHN SOLARIS
111 WELLKNOWN ST
VICTORIA BC V8Z 1P3

Billing Date	Account Number
Oct 09, 2014	XXXXXXXX
Pay By	Please Pay
Oct 31, 2014	\$11.18

Invoice Number:
XXXXXXXXXX

Meter Reading Information	Previous Bill	Balance payable from your previous bill	68.59
		Thank you for your payment Aug 14, 2014	68.59CR
Electric:		Balance from your previous bill	\$0.00
Meter # 1234567	BC Hydro	Electric Charges	
Aug 08 16000		Aug 08 to Oct 07 (Residential Conservation Rate 1101)	
Oct 07 16000		Basic Charge: 61 days @ \$0.16640 /day	10.15*
61 days 0		Energy charge:	
Electric Outflow:		Step 1: 0 kW.h @ \$0.07520 /kW.h	0.00*
Meter # 1234567		Rate Rider at 5.0%	0.50*
Aug 08 1100		* GST	0.53
Oct 07 1257			\$11.18
61 days 157			
Next meter reading on or about Dec 04			

KWh Daily Average Usage per Billing Period



Daily Average Comparison
Oct 2013 22 kWh
Oct 2014 20 kWh

Taxes

Customer Generation Account (Net Metering Rate 1289)
Previous Balance: 10 kWh Current Balance: 167 kWh

The following is a summary of taxes billed to your account since your last invoice:
GST at 5 % on 10.65 0.53

Balance payable \$11.18

Thank you for keeping your account up to date.

NM on MyHydro

Net consumption for the last 7 days



*A negative value means that on that date you generated more electricity than you consumed.

 [View detailed consumption](#)

Learn when you're using the most electricity and find ways to save.

Current billing period

Feb 26 - Mar 25, 2013

Net consumption to date (27 days):
313kWh*

*This is an estimate. Consumption costs don't include taxes and other fees which appear on your bill.

Consumption alerts

Set up alerts to keep up to date on your electrical consumption.

[Set up alerts](#)

<https://www.bchydro.com/accounts-billing/customer-service-residential/understand-electricity-consumption-residential/understand-your-net-consumption.html>

Pictures of Existing Projects

Vancouver Island,
T'Sou-ke First Nation



Richmond, Matthew McNair
Secondary School

Surrey, BC Housing

Ladysmith, Residential 5 kW project



Quinsam Hatchery 45 kW
Micro-Hydro project

Recent Changes to NM

- ✓ Increased maximum size of generators eligible under NM to 100 kW
 - Requires professional design and installation
 - P.Eng seal requirement
 - Incremental costs



Larger Projects: Things to Consider

- Qualified and experienced contractor
- Complex application form & drawings
- Service size is large enough
- Disconnection devices
- Proper labelling
- Field Verification Test
- Incremental costs

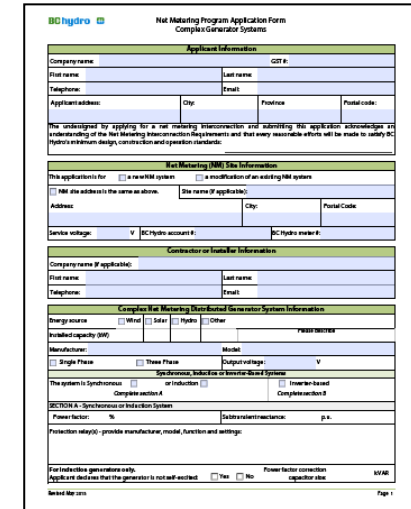
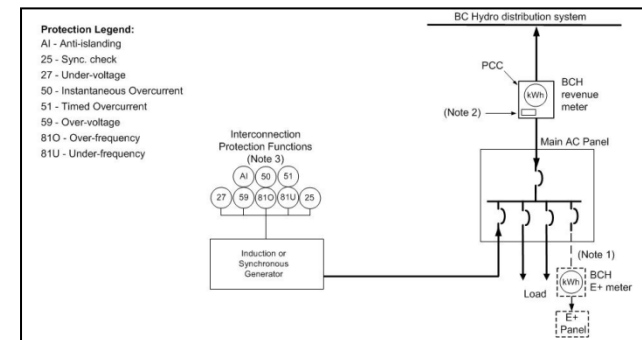
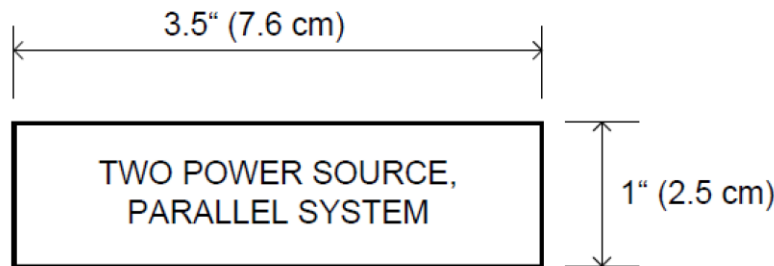



Figure B.4 - Warning Notice at BC Hydro Revenue Meter and Instrument Transformer Cabinet

Marketing & Communication

- ✓ Net Metering website
- ✓ Bill insert – highlighted NM program on paper and electronic bills to all customers
- ✓ Stakeholder meetings and webinar – intervenors, customers, contractors
- ✓ Featured customers on the website
- ✓ Presented at UBCM, FCM, CanSIA, First Nations Energy Forum, CSA group, Chartwell webinar, training workshop for solar installers
- ✓ Promotional materials distributed through BC Hydro Outreach – Net Metering postcards

Next Steps for Net Metering

- Regulatory Compliance:
 - Remove interconnection-related terms from RS1289
 - Formulate BCH DG Interconnection Policy (and submit to the BCUC)
- Amend NM tariff to accept “leased” solar PV systems
- Continue with communication efforts – more regular webinars

Contact Us

- www.bchydro.com/netmetering
- net.metering@bchydro.com
- Phone: 604-623-3878

