

Nelson Community Solar Garden – System One

Frequently Asked Questions

1. What is the Nelson Community Solar Garden

- a. It is a solar array that will be built at the Bonnington Generation Station, where Nelson Hydro already produces hydro electricity. Nelson Hydro Customers will invest in the project, and will be entitled to receive an annual payment, in proportion to their investment for the term of the 25-year contract, which will be calculated based on the kWh's generated by solar array. Participation is voluntary, and only those who invest will receive the benefits.

2. What is System One?

- a. System One refers to the first Nelson Community Solar Garden project.

3. How does the program work?

- a. For this first project, which is called System One, there will be a 4-week pre-sale phase for investments. Solar investments will be pre-sold on a per panel basis, starting on Nov 17th at the Pre-sale Kick Off Event, while supplies last. A target of 150 panels needs to be pre-sold by Dec 17th in order for construction to begin in the spring of 2016. A non-refundable deposit of \$500 per panel will be collected up until the full cost of the panels is known, if the target is not met or the bylaw amendments are not passed this deposit will be returned to customers. If the project moves ahead, the customer will receive an invoice for the final costs, near project completion.

4. What size will the array be?

- a. The size will range from 50kW-112kW, which is approximately 200-450 panels. The size of the array will depend on customer investments. Overall, the size of this project is small scale.

5. Who can invest?

- a. Anyone can invest, so long as the investment credit is applied to a Nelson Hydro account. Renters, business owners and homeowners or those wanting to give a gift.

6. Can I invest and then give the investment credit as a gift or donate it to a charity?

- a. Yes. The solar investment credit can be applied to any Nelson Hydro account. Upfront payments only, this option is not available for the on-bill financing.

7. Will the panels be on my roof?

- a. No. The solar panels will be located in one location, at the Nelson Hydro Power Plant in Bonnington.

8. Do I own the panel(s) in the array?

- a. No, it is an investment in the project on a per panel basis that you are purchasing, not the panel itself. Nelson Hydro will own the system in its entirety. For simplicity we refer to the sales of panels, but this reference means the investment on a per panel basis in the project.

9. Is there enough sunshine here?

- a. Yes, the Kootenays get more sunshine than Germany and they are the leading country when it comes to solar. We have tracked the solar irradiance in Nelson in order to

compare the simulated energy production estimates that are based on long term weather data for this area, and the results we have received over one year verify these estimates. It is the simulated energy production that we will use to estimate the energy production for this project.

10. How much energy will each panel generate?

- a. Based on the simulated energy productions, we can expect that a 50kW array could generate approximately 61,000 kWh/year. There is approximately 200 panels in a 50kW array, so each panel may produce around 300 kWh/year. Due to panel degradation, the panel's output is a bit less each year.

11. How many kWh's does the average home in Nelson use?

- a. Homes within Nelson use an average of 19,300 kWh's per year.

12. How will the value of my solar investment credit be determined?

- a. The value of the solar credit will be based on the electric rate during the period that the solar energy was generated. This will also be determined by how many panels you have invested in and how much solar energy was received for the entire system for that year. This will be measured in kWh (kilo Watt hour) of electricity produced. (e.g. if a customer invested in 3 solar panels out of a total of 200 then the credit will be for 3/200 of the generation from the entire solar garden, multiplied by the electricity rate and by the kWh's generated)

13. What will the approximate value of the solar credit be for one panel for one year?

- a. If one panel generated 300 kWh per year, using a rounded off number of \$.09/kWh for today's electricity rate, it would be \$26.00. This amount will change as the electrical rate changes from year to year. If we used a projected electricity rate based on historical averages, the value of the solar credit would be \$53.00/year by year 25. Remember these are estimates.

14. What is the cost per panel?

- a. The cost will not be higher than \$923/panel. The cost may be lower due to the size of the project, final project costs and if we receive a grant.

15. What is the return on investment if the cost is \$923/panel?

- a. If over the 25-year period, the historical increasing trend in rates continues, and the amount of solar radiance is maintained, then the investment should be more-or-less around the 20-year mark. But specific returns are not guaranteed. Remember, the \$923 is the maximum cost, if the panel costs is less then the return on investment is sooner.

16. How can I buy in?

- a. The two options for buy in are upfront payments or a payment plan using the on-bill financing or a loan from the Nelson & District Credit Union. Upfront payments can be made at the Kick off Event and at City Hall (after Nov. 17th) by using cash, cheque, debit or credit. This will be first come first serve while supplies last. For payment plan details please see the Financing FAQ section below.

17. Is the deposit refundable?

- a. No, the deposit is non-refundable, unless the project does not go ahead or the relevant bylaw updates are not passed, in which case the deposit will be returned.

18. When will the final costs be known and how will the balance be collected?

- a. The final costs will be known close to the time of construction, then an invoice will be issued for the balance and will be due net 30 days from the invoice date, payments can be made at City Hall, using cash, cheque, debit or credit.

19. How many panels can I invest in?

- a. Minimum one panel, and up to ten until Dec 8, 2015, after that the maximum will be 40 panels.

20. How long will the contract term be?

- a. 25 years. This is because most solar panels have a 25-year warranty.

21. What if I move?

- a. If you move within the Nelson Hydro service territory the solar credit can be transferred to your new account for a \$25.00 processing fee/transfer (not per panel). If you move out of the area and will no longer be a Nelson Hydro Customer you can transfer the credit to an account of your choice. In some cases you may choose to donate this credit to a charity or non-profit organization, or if you own your home you may wish to use it as a selling feature and then transfer it to the new owners account. You can sell the credit to someone of your choice for a price that is agreed upon by you and the buyer. Nelson Hydro will keep a wait list for those interested in buying in, and can help to facilitate the transaction by connecting the interested parties.

22. Who pays for the repairs and maintenance, and insurance that is required over the 25-year term?

- a. Nelson Hydro will be responsible for any costs incurred for the 25-year term.

23. What happens after the 25-year contract ends?

- a. The annual payments are discontinued and Nelson Hydro decides whether to keep operating the system or decommission it.

24. What type of solar panels will be used?

- a. To eliminate concerns regarding the negative environmental impacts that can occur during the manufacturing of the solar panels, we will use the 2014 SVTC Solar Scorecard. Companies are ranked out of 100, average score is 31 and industry leaders scoring over 70, for this project we will choose panels from companies that rank as leaders.

25. How many panels need to be pre-sold by Dec 17th in order to have the project be built in the spring?

- a. 150 panels, which is about 75% of a 50kW array.

26. What happens after Dec 17th, once the pre-sale phase has ended?

- a. The size of the array will be determined, based on how many panels were pre-sold. (e.g. If 185 panels were pre-sold, then a 50 kW array would be built. Since there are approx. 200 panels in a 50kW array, the remaining 15 panels would still be for sale after Dec 17th up until they are sold).

27. Will there be a wait list if the project sells out?

- a. Yes. A waitlist will be started once the panels have been sold out. This waitlist will help determine if another project will be built in the future.

28. Can businesses and renters invest?

- a. Yes, so long as the business or renter has a Nelson Hydro account number.

29. How can participants showcase their support in the project?

- a. There will be window stickers that can be displayed, that way your neighbors or customers can see how many panels you have.

Financing Options Frequently Asked Questions

1. What are the payment plan options?

- a. Loans can be accessed through the City of Nelson and the Nelson & District Credit Union. On-bill financing applications can be submitted while supplies last, if approved, the payments for the \$500 deposit begin the following month. Nelson & District Credit Union applications can be completed, and if you are approved then you can purchase the panels at City Hall while supplies last.

2. What is on-bill financing?

- a. It is a loan through the City of Nelson that is approved based on 12 months of good electrical utility history, and is then repaid on your Nelson Hydro utility bill. You must be on automatic withdrawal and payments are withdrawn on the 15th of every month. Loans cannot be transferred, if you move you must pay it off in full. Once fully paid, the solar investment credit can be transferred to any Nelson Hydro account. The Loan from the NDCU will feature similar terms. The application is available upon request, at the Nov. 17th event and at the bank.

3. Is there interest or any fees for using on-bill financing?

- a. Yes, there is a \$100 processing fee that will be added to the loan and the interest rate is 3.5% fixed.

4. How long is the loan for?

- a. You can choose a 5 or 10-year term. For the 10 year term, the 3.5% interest rate will be renewed after 5 years, and the rate may change.

5. What is the maximum loan amount for the on-bill financing?

- a. The maximum loan amount for System One will be \$10,000

6. If the loan for the \$500/panel deposit has been approved and the payments are being made, how will the balance be paid?

- a. For on-bill financing, the balance will be added to your loan and the payments will commence the next billing period. A notification letter will be emailed to you, advising you of the balance that has been added. For the NDCU loan, you will take the final invoice into the bank; once funds are issued you can then make a payment at City Hall, net 30 days of your invoice date.

7. What if I default on my on-bill loan?

- a. Nelson Hydro will undergo collection procedures in the same way that it does for regular electricity consumption. If collection of the unpaid balance is unsuccessful, the balance will be removed and the contract for the solar investment credit will be canceled.

Still have Questions? Come to the Nov 17th Event or contact:

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