

BC Hydro Financing estimate tool

Prepared for:

Customer contact name
 Customer company name
 Address line 1
 Address line 2
 City Province

Vendor Details:

Alliance contact name phone
 Alliance vendor name
 Address line 1
 Address line 2
 City Province Postal code

3.0 Year Financing Term

Full project cost financed Estimate date April-2016

You have chosen to finance the full project cost.

Your number of monthly payments would be 36

Your total borrowings would be \$150,000

The BC Hydro rebate will be delivered in year 1, and is reflected in the cash flow chart below.

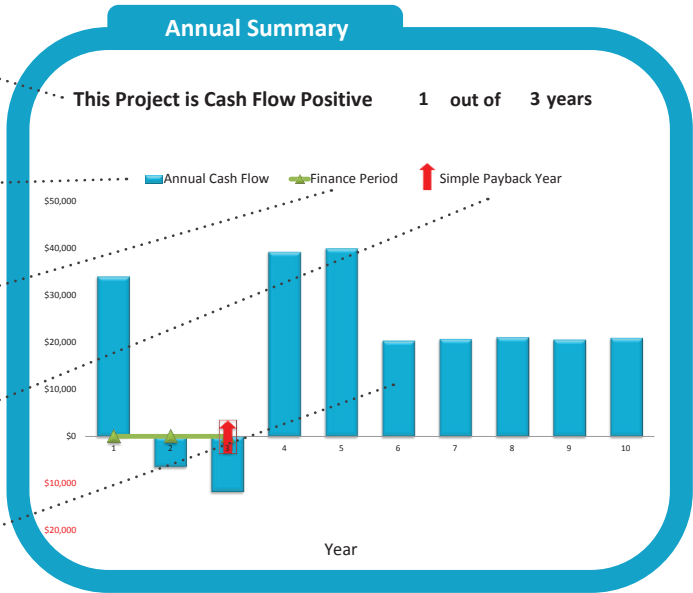
Monthly Summary

Average monthly project savings during financing period. **\$4,195**

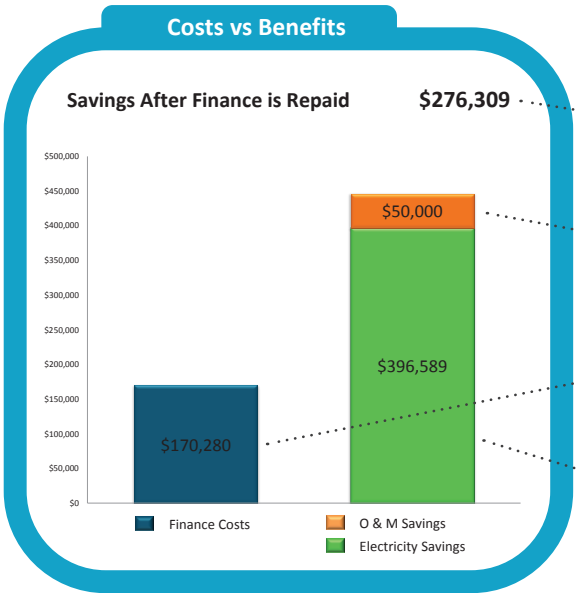
Highest monthly saving \$4,645

Lowest monthly saving \$3,751

Monthly finance repayment **\$4,730**



The Estimated Annual Cash Flow Chart above only displays up to 10 years of data. Project persistence might last longer than 10 years. For full cash flow estimate details see appendix.



The costs and benefits displayed in this chart are not discounted for inflation or the time value of money.

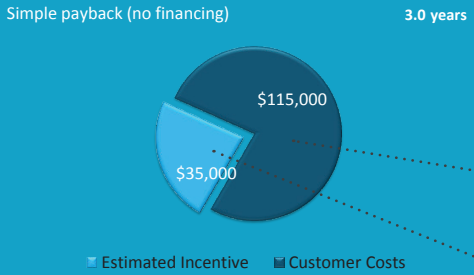
Did You Know?

You can ask your financial services provider to arrange a repayment schedule that enables you to shape the repayments in line with the estimated energy savings and business seasonality.

The LGS and MGS rates provide more savings in early years, this can enable greater repayments to be made in the first 3 years of the financing period while still remaining cash flow neutral.

Measure persistence impacts the delivery of savings over time, repayment schedules can be tailored to model declining savings levels as energy conservation measures reach the end of their effective measure life.

Project Cost

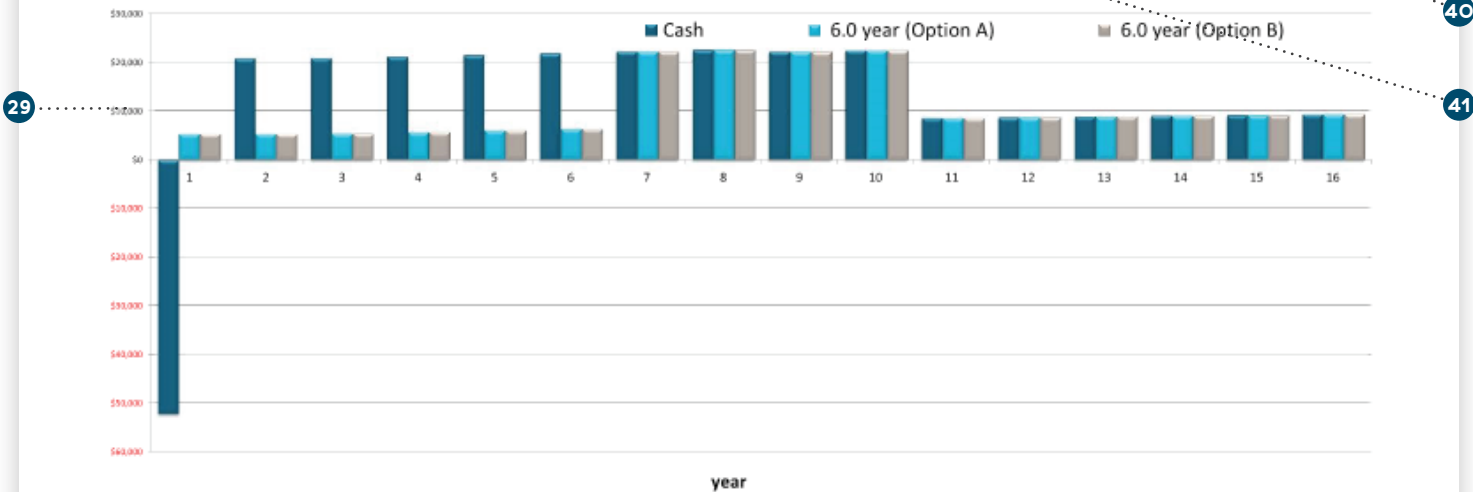


Financing Estimate Appendix

25	Total Project Cost	Amount Financed Net Project Costs	Estimated BC Hydro Incentive	Estimated Project Electricity Savings	Estimated Project O&M Savings	35
26	\$100,000	\$73,000	\$27,000	\$209,970	\$60,000	37

27	Financing Term	Total Repayment	Simple Payback	Return on Investment (ROI)	Net Present Value Discount Rate 10%	IRR	36
28	Option A 6.0 years	\$92,880	5 years	248%	-\$87,312	- NA -	38
	Option B 6.0 years	\$92,880	5 years	248%	\$87,312	- NA -	39
	Cash No Financing		4 years	297%	\$88,473	39%	39

Annual Project Cash Flow Chart



Estimated Project Savings			Cash Payment		Finance Options Selected					
Year	Electricity Savings	O&M Savings	Full Project Cost \$100,000		Option A (6.0 years)			Option B (6.0 years)		
			Annual Cash Flow	Cumulative Cash Flow	Finance Repayment	Annual Cash Flow	Cumulative Cash Flow	Finance Repayment	Annual Cash Flow	Cumulative Cash Flow
1	\$15,804	\$5,000	\$52,196	\$52,196	\$15,480	\$5,324	\$5,324	\$15,480	\$5,324	\$5,324
2	\$15,798	\$5,000	\$20,798	\$31,398	\$15,480	\$5,318	\$10,642	\$15,480	\$5,318	\$10,642
3	\$15,844	\$5,000	\$10,844	\$10,554	\$15,480	\$5,364	\$16,006	\$15,480	\$5,364	\$16,006
4	\$16,154	\$5,000	\$21,154	\$10,600	\$15,480	\$5,674	\$21,680	\$15,480	\$5,674	\$21,680
5	\$16,493	\$5,000	\$21,493	\$32,093	\$15,480	\$6,013	\$27,693	\$15,480	\$6,013	\$27,693
6	\$16,839	\$5,000	\$21,839	\$53,932	\$15,480	\$6,359	\$34,052	\$15,480	\$6,359	\$34,052
7	\$17,193	\$5,000	\$22,193	\$76,125	\$15,480	\$6,726	\$40,778	\$15,480	\$6,726	\$40,778
8	\$17,554	\$5,000	\$22,554	\$98,678		\$7,114	\$47,892		\$7,114	\$47,892
9	\$17,140	\$5,000	\$22,140	\$120,819		\$7,522	\$55,414		\$7,522	\$55,414
10	\$17,427	\$5,000	\$22,427	\$143,246		\$7,959	\$63,373		\$7,959	\$63,373
11	\$6,914	\$1,667	\$8,581	\$151,827		\$8,426	\$71,800		\$8,426	\$71,800
12	\$7,059	\$1,667	\$8,726	\$160,553		\$8,914	\$80,714		\$8,914	\$80,714
13	\$7,207	\$1,667	\$8,874	\$169,427		\$9,422	\$90,136		\$9,422	\$90,136
14	\$7,359	\$1,667	\$9,025	\$178,452		\$9,950	\$100,086		\$9,950	\$100,086
15	\$7,513	\$1,667	\$9,180	\$187,632		\$10,498	\$110,584		\$10,498	\$110,584
16	\$7,671	\$1,667	\$9,338	\$196,970		\$11,066	\$121,650		\$11,066	\$121,650
17										
18										
19										
20										
Total	\$ 209,970	\$60,000		\$196,970			\$177,090			\$177,090



1 The name and contact details of the lead Alliance vendor.

- Contact name
- Company name
- Company address
- Contact phone number

2 The name and address details of the customer

- Contact name
- Customer name
- Customer head office address

3 Average monthly project savings figure

The Average Monthly Project savings during the finance period is calculated by summing all the savings delivered during the finance period selected, and dividing that number by the total number of months of that finance period.

SAVINGS INCLUDED

- Energy savings
- Demand savings (for LGS and MGS only)
- Maintenance savings

All savings are estimated with no knowledge of other activities underway at the site. It is assumed that all other factors which could influence the project savings figure are to remain constant and unchanged throughout the duration of the project's persistence.

4 Highest monthly saving

This figure is the highest monthly savings figure estimated during the finance period. Savings are calculated on an annual basis and divided by 12 create the monthly figure.

Typically the highest savings are delivered in the first year of the project. There is no seasonality or load shaping applied to this calculation. Monthly savings are assumed to be evenly distributed across the year for simplicity.

5 Lowest monthly saving

This figure is the lowest monthly savings figure estimated during the finance period. Savings are calculated on an annual basis and divided by 12 create the monthly figure.

Typically the savings are lowest in the later years of the finance period as project measures reach the end of their effective measure life and the savings drop off. There is no seasonality or load shaping applied to this calculation. Monthly savings are assumed to be evenly distributed across the year for simplicity.

6 Monthly finance repayment

This is the monthly finance repayment amount calculated based on the data entered in the application. The system calculates a straight line repayment schedule (equal monthly payments for the entire term length). Any fees and other costs are estimated and included into the monthly repayment figure.

7 Savings after finance is repaid

This reflects the amount of savings benefit the project supplies after all the financing costs have been paid. To calculate the Savings After Finance is repaid the Total Finance Costs (28) are subtracted from the Total Projects Savings (36+37). The BC Hydro incentive is not accounted for in this calculation.

TOTAL PROJECT SAVINGS INCLUDE

- Energy savings
- Demand savings (for LGS and MGS only)
- Maintenance savings

8 O&M savings

These savings are entered by the user, this number represents the full lifetime O&M savings the project is estimated to deliver. Also shown in (37)

9 Finance costs

The total sum of all finance repayments. Also shown in (28)

10 The energy savings benefit

This reflects the energy benefits that the project delivers for the full persistence of the measures employed. This figure includes energy savings and any energy demand savings. It does not include the BC Hydro rebate amount. Also shown in (36)

11 Project cost

This number reflects the Full Project Cost that is entered in the BC Hydro Incentive application. It reflects only the eligible costs of the BC Hydro incentive application. Non eligible costs such as certain consulting costs, management fees and non-eligible measures are not included (these costs can be included in the lease however).

12 Simple payback (no financing)

The simple payback (no financing) is calculated using the full project cost, the energy and non-energy benefits savings streams and the BC Hydro incentive. The calculation is not discounted for the time value of money and does not incorporate any interest cost associated with a financing option. This simple payback will be typically shorter than the pay back shown in the annual summary chart (see 24) as interest charges and finance costs are incorporated into the chart's simple payback.

13 Customer costs

The customer costs reflect the portion of the Full Project Cost not covered by the BC Hydro incentive.

14 Estimated incentive

The estimated BC Hydro incentive amount. This is not dependent on the finance option selected. It is calculated prior to the use of the financing portal in step 3 of the BC Hydro incentive application. This number will not change unless the information in the BC Hydro incentive application changes.

15 The financing term

This shows the financing term (in years) that was selected in the financing portal. The user can pick two term options to view.

16 Estimate date

This date reflects the application date of the BC Hydro incentive application. This date is used to set the start date of the project. BC Hydro rates operate on a fiscal calendar basis (April 1st to March 31st). The financing tool uses this date to apply the correct BC Hydro rate levels to the annual savings calculations.

17 Reminder of the financing amount selection

In the Finance Data Entry Portal there are three options for the “Financing amount”. The project summary box shows what option was chosen as a reminder.

- Full project cost
- Net project cost
- Other amount

18 Number of monthly payments

This shows the total number of monthly payments selected for the finance option being viewed.

19 Total borrowings

This shows in dollars the total amount that is being financed. This amount can be higher than the Full Project Cost if the “Other Option” is chosen and a higher amount entered. This could be useful for including non-eligible costs into the finance estimation such as certain consulting or management costs, non-eligible measures or non-energy related costs. Entering a higher number here will not impact the Full Project Cost (see 11) as this number is taken directly from the incentive application and reflects only eligible costs.

20 Cash flow positive summary

This gives a simple view of the number of years during the finance period where the total annual benefits (Energy Savings, Demand Savings, Maintenance Savings, BC Hydro incentive) are greater than the annual repayment amount. Each benefit or cost is calculated on a monthly basis and summarised in an annual figure. No accounting for seasonality is made in the monthly calculations. In reality projects could show an annual cash flow positive average, but still have certain months that are negative.

This figure should be viewed in concert with chart (see 24). Years that are cash flow negative by only \$1 still record as a negative year. The extent of the difference between costs and benefits is displayed in the chart (see 24).

21 Annual cash flow

The annual cash flow is calculated by subtracting the annual finance costs from the annual benefits. In year 1 the benefits include the BC Hydro Incentive.

BENEFITS

- BC Hydro incentive
- Energy savings
- Demand Savings (for LGS and MGS only)
- Maintenance savings

COSTS

- Any portion of the project cost not covered by the financing.
- Finance repayments

If the amount financed is less than the Full Project Cost, it is assumed that there will be a cash payment to the Alliance vendor from the customer to cover this amount. When the Net Project Cost option is selected this cash payment is equal in value to the BC Hydro incentive and the costs and benefits in this case will cancel each other out.

22 Finance period

The finance term selected is depicted on the chart using the green line, rounded up to a full year. For example, if 5 years is selected as the finance period the green line will extend to year 5. If 5 ½ years is selected as the finance period the green line will extend to year 6.

23 Simple payback year

This shows the equivalent simple payback. This equivalent simple payback takes into consideration interest finance costs. This will typically be longer than the Project Simple Payback (see 12) as interest costs are factored into this simple payback calculation.

This also rounds up to the full year. Projects with a payback of 3 years and one month will display the red arrow in the 4th year.

BENEFITS

- BC Hydro incentive
- Energy savings
- Demand Savings (for LGS and MGS only)
- Maintenance savings

COSTS

- Any portion of the project cost not covered by the financing.
- Finance repayments

24 Annual summary chart

This chart shows the annual cash flow, simple payback year (with finance costs included) and the finance period all in one chart. The Y axis is in \$'s, the X axis represents years. The number of years displayed will be the longest of either the finance term selected or the persistence of the measures, up to a max of 10 years.

25 Total project cost

(See 11)

26 Amount financed

(See 19)

27 Financing term selected

(See 15)

28 Total repayment amount

The sum of all monthly finance repayments for the entire repayment period (non-discounted)

29 Cash flow chart

This cash flow chart shows the same information as cash flow chart 24, however the time period is extended to the full persistence of the measures, and is capped at 20 years. The chart also shows a Cash Payment Option. This cash payment option assumes that financing is not utilised and represents the project from a cash payment perspective.

30 Estimated project savings

This section shows the annual projects savings estimated by the tool. The savings are split into two columns:

- Energy Savings and Demand Savings
- Maintenance Savings

The table only show up to 20 years of savings. If measures have a deemed persistence longer than 20 years they are only reflected in the total figure.

31 Cash option

This table section displays the cash flow information that is used to populate the chart above it.

32 Cost

This is the Full Project Cost as defined in the BC Hydro incentive application. See (11).

33 Annual cash flow

This is the annual cash flow for the Cash Payment Option. All project costs are assumed to be paid in year 1.

BENEFITS

- BC Hydro incentive (year 1 only)
- Energy savings
- Demand Savings (LGS and MGS only)
- Maintenance savings

COSTS

- Project Costs (year 1 only)

34 Cumulative cash flow

This is the annual cash flow shown as a cumulative figure.

35 Estimated BC Hydro incentive

(See 14)

36 Estimated project electricity savings

This is the sum of all electricity benefits (energy and demand savings) for the full persistence of the measures. This does not include the BC Hydro incentive.

37 Estimated operational and maintenance savings

This is the sum of all O&M benefits (as defined by the user) for the full persistence of the measures.

38 Internal rate of return (IRR)

The IRR the interest rate (or discount rate) at which the net present value of all future cash flows (both positive and negative) from the project are to equal zero. In this calculation the first year cash flow includes the total project cost minus the savings of the 1st year and the BC Hydro Incentive. An IRR can not be calculated for a finance option.

39 Return On Investment (ROI)

The ROI for the project is expressed as a percentage. The Total Benefits (energy savings, O&M savings and BC Hydro Incentive) are divided by the Total Costs of the project (total project costs plus any financing costs)

40 Net present value

This shows the net discounted cash flow impact of the project. The discount rate used in this calculation is entered in the financing data entry portal. The discount rate used should reflect the weighted average cost of capital for the customer. The NPV shows the value of the project's future cash flows in today's money. Cash flows that are far out in the future have financial risk associated with them. The discount rate applies a lens to that risk that allows the user to more usefully see the value of a project in the equivalent of today's money. In theory any project with a positive NPV is worth considering. The larger the number the more beneficial the project. Projects with a negative NPV represent projects where the costs outweighs the benefits.

If no discount rate is entered a default of 10% is used.

41 Simple payback

(See 23)

42 Finance options selected

This section of the table shows the cash flow information for the two finance terms selected by the user. The cash flow is shown as both annual and cumulative for each financing term option.

43 Finance repayment

This shows the total finance repayments for each year.