

FINANCE CALCULATION FORMULAS

True Annual Interest Rate:
(Initial 5 year term)

4.8%

Amortization Period (Loan Term)	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Months	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
Row 1: Monthly Payment Amortization Rate		0.08547	0.04374	0.02984	0.02289	0.01873	0.01597	0.01399	0.01252	0.01137	0.01046	0.00972	0.00910	0.00858	0.00813	0.00775
Row 2: Total First Term (5 Year) Interest Paid		0.02563	0.04967	0.07407	0.09884	0.12398	0.14469	0.15946	0.17050	0.17907	0.18590	0.19146	0.19609	0.19998	0.20330	0.20616
Row 3: Principal Remaining							0.18679	0.31992	0.41952	0.49675	0.55834	0.60854	0.65021	0.68532	0.71526	0.74109

FINANCE CALCULATIONS

A) Monthly Loan Payment

$$\text{Amount Loaned (\$)} \times \text{Monthly Payment Rate} = \text{Monthly Payment (\$)}$$

(corresponding to Amortization Period from **Row 1**)

Example

$$\text{\$ } 4,500 \times 0.00775 = \text{\$ } 34.88$$

15 year amortization (loan term)

B) Total First Term Interest Paid

$$\text{Amount Loaned (\$)} \times \text{First Term Interest Payable Rate} = \text{Total Maximum Interest Payable(\$)}$$

(corresponding to Amortization Period from **Row 2**)

Example

$$\text{\$ } 4,500 \times 0.20616 = \text{\$ } 927.72$$

15 year amortization (loan term)

C) Principal Remaining (after initial 60 month term)

$$\text{Amount Loaned (\$)} \times \text{Principal Remaining Rate} = \text{Maximum Principal Remaining}$$

(corresponding to Amortization Period from **Row 3**)

Example

$$\text{\$ } 4,500 \times 0.74109 = \text{\$ } 3,334.91$$

15 year amortization (loan term)

Example: Completion of Financing Agreement Section (Part 1 of Application Forms)

The example below provides outline of what figures need to be completed on the financing section of Part 1 of the Home Energy Efficiency Loan application forms. In this example, the loan amount is \$4,500 over 15 years.

FINANCING AGREEMENT:

Enter amortization period (loan term) of up to 180 months (15 years)

Enter Total Amount to be loaned to a maximum of \$5,500

1. Manitoba Hydro will advance the Primary Contractor named above the Total Cost to be Financed, in the aggregate amount of \$ 4,500, upon receipt of a duly completed Progress Payment Request (if any) signed by the Owner and upon receipt of the Completion Certificate signed by the Owner.

2. The Owner will amortize said amount over a term of 180 months. For the initial 60 months of this agreement, maximum financing charges of \$ 927.72 will be repaid by equal consecutive payments of \$ 34.88, calculated at the true annual interest rate of 4.80% per annum on the declining monthly balance. The maximum principal amount remaining at the end of the initial 60 month term will be \$ 3,334.91. At the end of the 60 month term, the Owner will be required to pay the principal amount remaining or refinance that principal over the remaining amortization period at available market interest rates. Manitoba Hydro will communicate available options to the Owner through written correspondence 6 months prior to the completion of the initial 60 month term of the agreement.

Use Finance Calculation (A) to determine Monthly Loan Payment during initial 60 month (5 years) fixed interest rate period

Use Finance Calculation (B) to determine Maximum interest payable over initial 60 months (5 years) of fixed interest rate periods

SUBJECT TO CHARGES ON OVERDUE PAYMENTS, MAXIMUM TOTAL AMOUNT TO BE REPAYED BY OWNER, INCLUDING FINANCING CHARGES DURING THE INITIAL 60 MONTH TERM OF THE AGREEMENT: \$ 2,092.80

Result of Finance Calculation (A) X 60 months (or number of payments if loan term is less than 60 months (5) years

Use Finance Calculation (C) to determine Maximum principal remaining following the initial 60 month (5 years) fixed interest