

## Parkland Net-Zero Building Envelope Incremental Costs

Item	Typical Construction		Habitat Minimum		Parkland NetZero	
Basement floor insulation	R9 (with in-floor heating)	\$0.00	R18	\$5,600	R27	\$7,500
Basement Walls	R12		R28		R50	
Exterior Walls Labour	2x6 16" OC	\$0.00	2x8 24" OC	\$800	Double 2x4- 24"O.C.	\$5,000
Exterior Walls Material	R20 Nominal	\$0.00	R28 Nominal	\$0	R56 Actual	\$400
Exterior Walls Insulation	R20 Nominal	\$0.00	R28 Nominal	\$1,600	R56 Actual	\$8,200
Roof	R40	\$0.00	R60	\$1,400	R85	\$2,900
Windows	Dual Glazed Fibreglass	\$0.00	Triple glazed LowE Argon PVC	\$5,500	Triple glazed LowE Argon Fibreglass	\$5,500
Air tightness	2 to 4 Air Changes Per Hour (ACH) at -50 pascals of negative pressure	\$0.00	1 to 1.5 ACH	\$1,600	.5 ACH	\$2,400
Extra thermal Mass	None	\$0.00	None	\$0	2 1/2" Concrete Overlay*	\$5,500
<b>Total Envelope Incremental Cost</b>		<b>\$0.00</b>		<b>\$16,500</b>		<b>\$37,400</b>
Upgrade cost over Habitat Minimum						\$20,900

### Mechanical System Incremental Costs

Item	Typical Construction		Habitat Minimum		Parkland NetZero	
In floor Heating	Mid Efficient In floor Heating	\$0.00	High Efficient Boiler	\$1,600.00	Electric Boiler, Simpler Tubing Installation	-\$3,000.00
Hot Water Tank	Standard Tank	\$0.00	High Efficient Demand Hot Water Tank	\$3,100.00	Electric Tanks Insulated to R45	-\$1,100.00
<b>Total Mechanical System Incremental Cost</b>		<b>\$0.00</b>		<b>\$4,700</b>		<b>-\$4,100</b>
Upgrade cost over Habitat Minimum						-\$8,800

### Renewable Energy Collection

Item	Typical Construction		Habitat Minimum		Parkland NetZero	
Total Solar PV System	None	\$0.00	None	0	16.5kW dual Axis tracking	<b>\$80,000</b>

<b>Net Incremental Cost Before Renewable Energy Generation</b>	<b>\$0.00</b>	<b>\$21,200.00</b>	<b>\$33,300.00</b>
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<b>Net Incremental Cost for Net-Zero at PNZ</b>	<b>\$0.00</b>	<b>\$21,200.00</b>	<b>\$113,300.00</b>
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