

Funding Calculation Form

Hydronic Heat Pumps

Facility Name _____

Form Completed by _____

Date _____

Manufacturer & Model Number of Heat Pump(s) _____

Total Floor Area Served (Sqft) _____

See the "Heat Pump Instruction Sheet" for directions on how to use this form and for additional requirements.

I. Proposed and Baseline Performance

Fill out the row which corresponds to the type and cooling capacity of your heat pump unit(s), then continue with section II.		Baseline Performance				Proposed Performance					
		Cooling		Heating		Cooling			Heating		
Type	Rated Cooling Capacity per unit (Btu/h)	from Seattle Energy Code a	Wh/Btu b	from Seattle Energy Code c	Wh/Btu d	From manufacturer's literature e	Conversion factor f	Wh/Btu g= f/e	From manufacturer's literature h	Conversion factor i	Wh/Btu j= i/h
Ground Water	less than 135,000	11.5 EER	0.0870	3.0 COP	0.0977	EER	1		COP	0.293	
Water Source	65,000 or less	10.2 EER	0.0980	3.8 COP	0.0771	EER	1		COP	0.293	
	65,001 to 135,000	10.5 EER	0.0952	3.8 COP	0.0771	EER	1		COP	0.293	
	greater than 135,000	9.0 IPLV	0.1111	6.6 HSPF	0.1515	IPLV	1		HSPF	1	
Evaporatively Cooled	65,000 or less	8.5 IPLV	0.1176	2.0 COP	0.1465	IPLV	1		COP	0.293	
	65,001 to 135,000	9.7 IPLV	0.1031	2.0 COP	0.1465	IPLV	1		COP	0.293	
	greater than 135,000	9.0 IPLV	0.1111	2.0 COP	0.1465	IPLV	1		COP	0.293	

II. Energy Savings, Project Costs, Estimated Funding

A	Cooling performance improvement	col. b - col. g	Wh/Btu
B	Cooling capacity per unit	from manufacturer's literature	Btu/h
C	Cooling equivalent full load hours	-----	800 hr/yr
D	Cooling energy savings per unit	(line A x line B x line C) / 1000	kWh/yr
E	Heating performance improvement	col. d - col. j	Wh/Btu
F	Heating capacity per unit	from manufacturer's literature	Btu/h
G	Heating equivalent full load hours	-----	900 Hr/yr
H	Heating energy savings per unit	(line E x line F x line G) / 1000	kWh/yr
I	Total energy savings per unit	line D + line H	kWh/yr
J	Number of units	-----	
K	Total energy savings	line I x line J	kWh/yr
L	Estimated Seattle City Light funding *	line K x (0.275/kWh)	
M	Project cost	cost related to this measure	
N	Total cooling capacity (tons)	(line B x line J) / 12000	Tons

Seattle City Light use Only

Approved Funding Amount: \$

Approved by:

Date:

* This form is not a guarantee of funding from Seattle City Light (SCL). The estimated funding (line L) will be reviewed by SCL in relation to project cost, system performance, suitability of the equipment, control strategy, etc. Funding can only be guaranteed through written legal documents signed by SCL.