Energy Report Summary for December 2010

Prepared for:

Natural Resources Canada | Ressources Naturelles Canada

Canada

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SAIC®
From Science to Solutions

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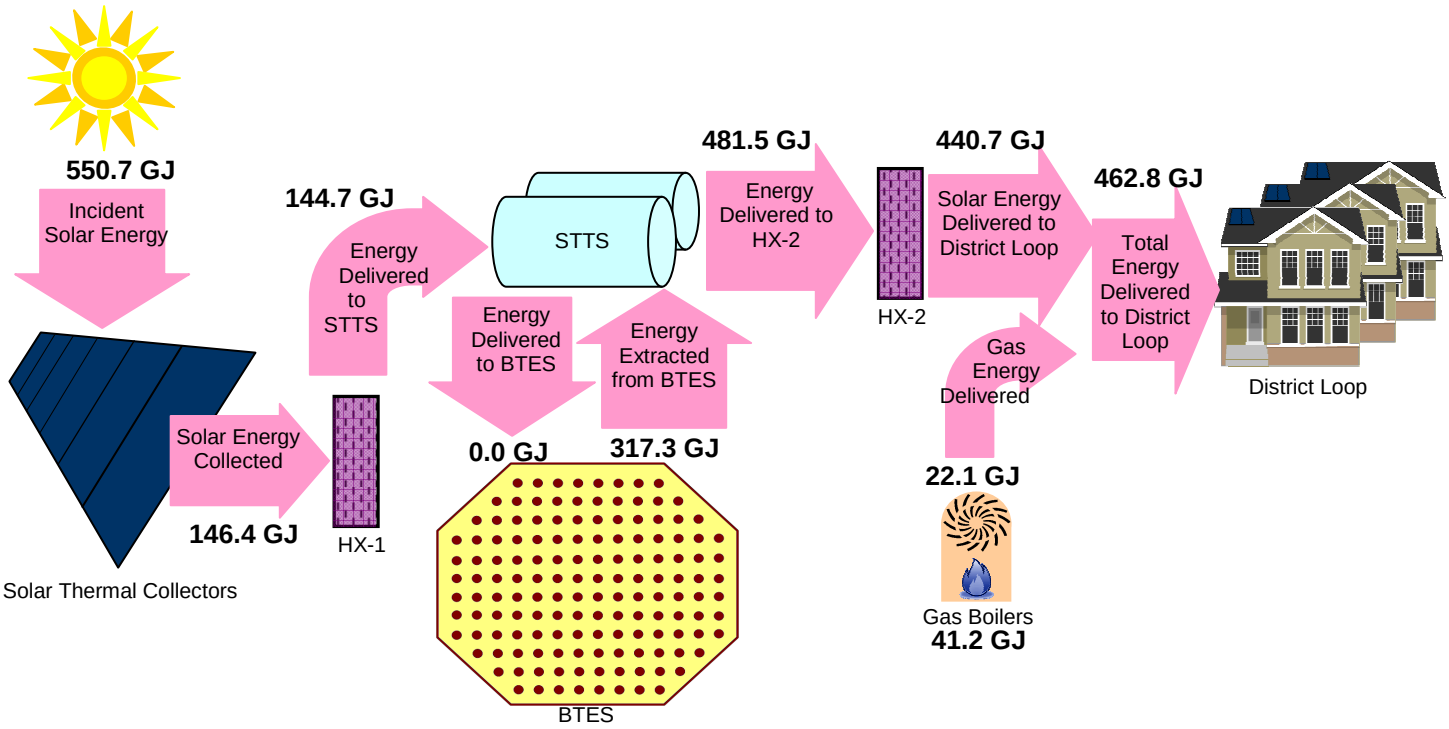
Drake Landing Solar Community Energy Overview for December 2010

This document summarizes the energy generated and used within the Drake Landing Solar Community at Okotoks Alberta.

Additional Information may be found here: http://www.dlsc.ca



System Energy Diagram

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Table 0-1 Summary for December 2010

Description	This Month		Since July 1, 2010	
Total Incident Solar Energy	550.7	GJ	5993.8	GJ
Total Solar Energy Collected	146.4	GJ	1928.2	GJ
Total Solar Energy Delivered to STTS	144.7	GJ	1852.8	GJ
Total Energy Delivered to BTES	0.0	GJ	1241.2	GJ
Total Energy Extracted from BTES	317.3	GJ	625.5	GJ
Total Energy Delivered from STTS to HX-2	481.5	GJ	1147.2	GJ
Total Solar Energy Delivered to District Loop	440.7	GJ	1034.0	GJ
Natural Gas Energy Used	41.2	GJ	72.2	GJ
Boiler Thermal Energy Delivered to the District Loop	22.1	GJ	50.1	GJ
Total Energy Delivered to District Loop	462.8	GJ	1084.1	GJ
Average Solar Collector Efficiency	27	%	32	%
Average Efficiency of HX-1	99	%	96	%
Average Efficiency of HX-2	92	%	90	%
Average BTES core temperature	53.5	℃	58.6	℃
Electrical energy used	14.4	GJ	47.5	GJ
PV energy generated	0.4828	GJ	5.9	GJ
Net change in energy stored in STTS	-6.89	GJ	-38.3	GJ
Solar Fraction	95	%	95	%