

## Energy Report Summary for January 2012

Prepared for:



Natural Resources  
Canada

Ressources Naturelles  
Canada

Canada

Prepared by:



*Science Applications International Corporation  
(SAIC Canada)*

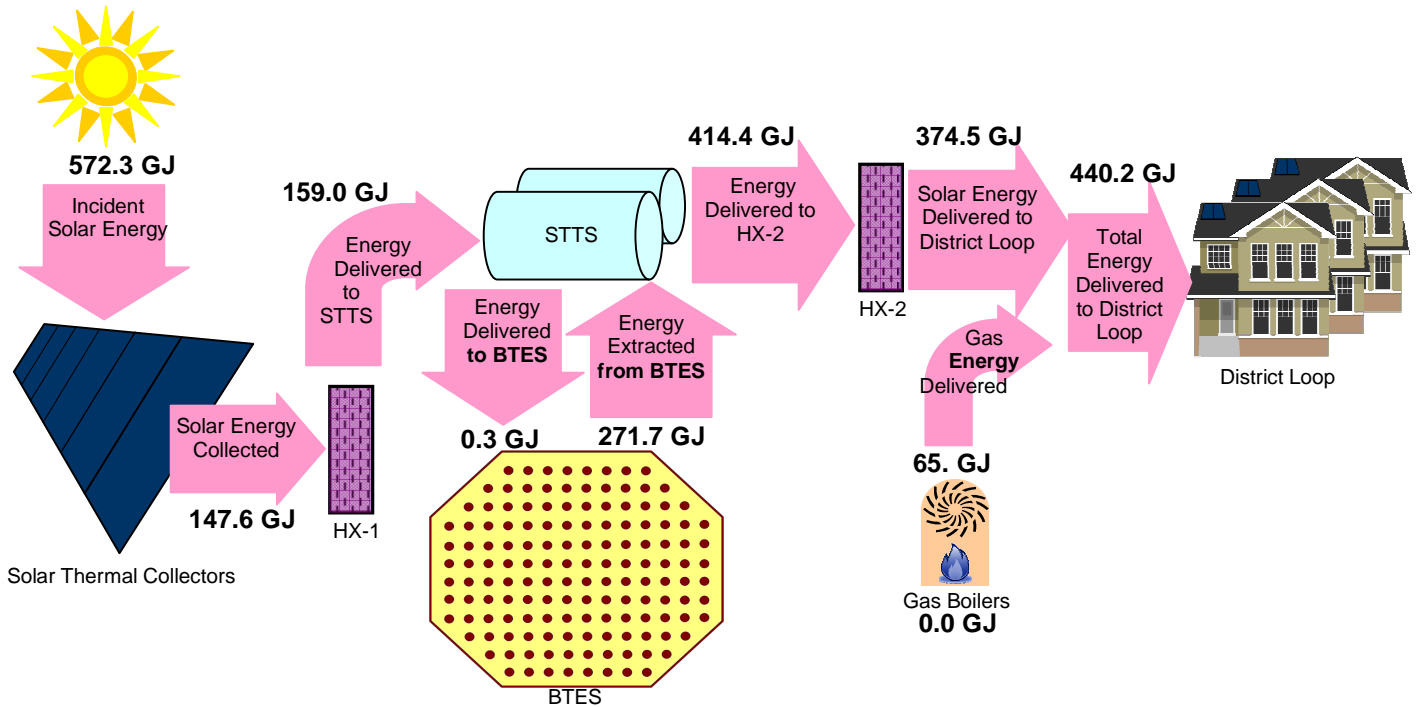
March 23, 2012  
Document Version 1.0  
CM002171

**PROPRIETARY**

## Drake Landing Solar Community Energy Overview for January 2012

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

<b>Table 0-1 Summary for January 2012</b>		
<b>Description</b>	<b>This Month</b>	<b>Since July 1, 2011</b>
Total Incident Solar Energy	572.3 GJ	7280.3 GJ
Total Solar Energy Collected	147.6 GJ	2454.2 GJ
Total Solar Energy Delivered to STTS	159.0 GJ	2485.4 GJ
Total Energy Delivered to BTES	0.3 GJ	1506.2 GJ
Total Energy Extracted from BTES	271.7 GJ	712.4 GJ
Total Energy Delivered from STTS to HX-2	414.4 GJ	1397.7 GJ
Total Solar Energy Delivered to District Loop	374.5 GJ	1217.8 GJ
Natural Gas Energy Used	0.0 GJ	0.0 GJ
Boiler Thermal Energy Delivered to the District Loop	65. GJ	65.0 GJ
Total Energy Delivered to District Loop	440.2 GJ	1283.5 GJ
Average Solar Collector Efficiency	26 %	34 %
Average Efficiency of HX-1	108 %	101 %
Average Efficiency of HX-2	90 %	87 %
Average BTES core temperature	52.4 °C	60.5 °C
Electrical energy used	0.0 GJ	3.1 <sup>1</sup> GJ
PV energy generated	0.4284 GJ	7.2 GJ
Net change in energy stored in STTS	-0.60 GJ	-28.3 GJ
Solar Fraction	85.1 %	94.9 %

<sup>1</sup> The electrical energy used values are based on data from EPM-1 which has produced unreliable and incomplete data. The numbers given do not represent actual electrical consumption.