Strategic Energy Management Plan

SEMP

The Strategic Energy Management Plan (SEMP) will promote the Huron Perth Healthcare Alliance's commitment to promote good stewardship of our environment and resources.

HURON PERTH HEALTHCARE ALLIANCE

46 General Hospital Drive,
Stratford, ON

Stratford General Hospital
Seaforth Community Hospital
St. Marys Memorial Hospital
Clinton Public Hospital

2014 - 2019

STRATEGIC ENERGY MANAGEMENT PLAN (SEMP) FOR THE HURON PERTH HEALTHCARE ALLIANCE FOR YEARS 2014 TO 2019

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- **INTRODUCTION:**

The purpose of the Huron Perth Healthcare Alliance (HPHA) energy management plan and policies is to promote good stewardship of our environment and community resources. In keeping with our core values of Efficiency and Financial Responsibility, HPHA's energy management program will reduce operating costs and enable us to provide compassionate service to a greater number of persons in the community. HPHA also supports the Government's initiatives for responsible energy management as demonstrated in regulations such as O'Reg 397/11.

- Utility and energy related costs are a significant part of overall operating costs
  - Utility costs in 2011 were $xxxxxxx
  - Facility related Operating and Maintenance costs are approximately $xxxx annually
  - Facility capital project costs are projected at $xxxxx over the next 5 years

- With energy management an integral part of business decisions, HPHA can expect the following;
  - 15% reduction in energy use over 5 years

- HPHA has been an active participant in energy conservation and management and has invested heavily in projects to reduce utility costs for more than 12 years. Some projects include;
  - Replacement of boilers in Stratford and Clinton hospitals with new, low water volume models
  - Elimination of steam production in Clinton hospital
  - Exterior insulated finish systems (EIFS) on the Seaforth and Clinton hospitals
  - Elimination of once-though water cooled refrigeration systems in Stratford, St. Marys, Seaforth and Clinton
  - Use of a heat recovery, condensing tower at Stratford
  - Maximize use of recovered hot water as a pre-heat treatment for other hot water requirements
  - Increased insulation value on all new roofs in Stratford, St. Marys, Seaforth and Clinton hospitals
  - Continued development of automated building controls to monitor building operating functions and maximize efficiencies
  - On-going reviews and development of efficiencies for existing equipment, such as heating boilers to maximize use of new technologies

- Changing dated T12 fluorescent light fixtures with energy efficient T8 fixtures in Stratford, Seaforth and St. Marys hospitals.
- Installation of power factor correction devices at Stratford.
- Provision of Variable Speed Drives (VFD's) on air handling equipment and pumps that operate equipment at peak efficiency.
- Investments in employee education and engagement across the HPHA with programs like the "CHESTER Network", and our annual Energy Challenge.
- Annual energy surveys to gauge equipment efficiency such as Steam Trap Surveys

o Other activities include;
  - Continuing education for managers and building operators
  - Negotiated purchases of natural gas and electricity to minimize purchase costs
  - Use of retro-commissioning reports to identify operational savings
  - Reliance on experts in the field of energy use and reduction
  - Review of efficiencies of new equipment prior to purchase
  - Support of Senior Management and the Board of Directors as it relates to energy conservation
  - Assessments of existing systems that enable the HPHA to compare our efficiencies against peer hospitals
  - Investments in employee education and engagement across the HPHA with programs like the "CHESTER Network" and our annual Energy Challenge.
  - Annual energy surveys to gauge equipment efficiency such as Steam Trap Surveys

o To further strengthen and obtain full value from energy management activities, a strategic approach will be taken: the organization will integrate energy management into its business decision-making, policies, and operating procedures.

o Active management of energy related costs and risks in this manner will provide a significant economic return to the organization and will support other key organizational objectives.

- **ENERGY MANAGEMENT VISION:**

The St. Charles Medical Center, in Bend Oregon, USA states, “We consider our facilities a primary source of giving care, an integral part of the healing environment, and key to this equation is the ability to use our facilities efficiently and effectively.”
The four hospitals of the Alliance consider it our mission to improve the health of the communities we serve and we will limit adverse impacts upon the environment resulting from the operation of our health care facilities.

- **GUIDING PRINCIPLES FOR STRATEGIC ENERGY MANAGEMENT:**

The HPHA’s energy management will be guided by these principles;

  - **Taking a Strategic Approach:** While the HPHA actively manages energy costs by implementing opportunities as they are identified, by acting strategically, HPHA can significantly improve its energy related performance. Internalizing energy management into our organization’s every day decision making, policies and operating procedures will help assure substantial and long-lasting reductions in energy use throughout the four hospitals of the Alliance.
  - **Supporting Mission-critical Goals:** Strategic energy management will directly support HPHA’s mission-critical goals of caring for the environment and the community, optimizing the healing and working environment, improving the hospital’s financial bottom line by reducing unnecessary energy costs, optimizing the capacity of existing energy systems to meet current and expanding operational needs. The impacts of HPHA’s energy management efforts on those goals will be tracked and reported wherever possible.
  - **Pursuing Long-term change to Core Business Practices:** The core of a strategic approach is the consistent incorporation of energy management into our organization’s core practices and decision making such as the strategic planning and budgeting processes. Change in energy related business practice will cover all application of energy management – new construction and major renovation, existing facility operations and upgrades, and the economic analysis and procurement practices underlying these practices.
  - **Fostering Organizational Commitment and Involvement:** Executive and organizational commitment and involvement is critical to successful strategic energy management. Senior management at HPHA will work with Facilities Management and other key staff to ensure that adequate organizational support and resources are provided to maximize the benefits of energy management to HPHA. Energy Management will be integrated into the strategic planning and capital budgeting processes.
  - **Obtaining Solid Economic Returns:** Energy management investments will yield solid economic returns that meet HPHA’s expectations. HPHA will apply

consistent financial analysis methods that consider life cycle to reduce total cost of facility ownership and operation.

- **Using Available Resources and Assistance:** HPHA will use provincial, regional and local sources of professional and financial assistance to help achieve our energy management goals. These include utilities and government for rebates and incentives.

- **BUSINESS PROPOSITION:**

Performance will typically be compared using performance indicators rather than strictly financial measurements. For example, HPHA may indicate a target of XX% improvement rather than a specific number stated in dollars. The reasons for using a performance indicator relate to the complexity of the hospital model. Equipment that use energy is consistently being added or changed. Medical technology is continually advancing and changing. Building operating requirements change regularly. Building area used for patient care may increase or decrease. These all add to the complexity of measuring energy use and then comparing to previous years. Energy Management becomes easier to gauge when specific projects forecast projected savings in dollars with an overall improvement stated as a percentage. For example: *Replacing an old piece of outdated equipment with new is projected to save $20,000.00 annually in operating costs, contributing to our annual projected reduction of 3% energy savings.*

If energy management considerations are integral to relevant business practices, policies, procedures, and decision-making process, then HPHA's energy use can be reduced by an additional 15% over a 5-year period. This overall reduction in energy use may not translate directly into a reduction in energy costs. For example, if HPHA is successful at reducing our energy use by 15% in the next 5 years and the cost of energy increases by 20%, our total cost of less energy used increases. It is the goal of HPHA to stay ahead of that curve and reduce energy use faster than the cost of energy increases, thereby contributing to the bottom line. This business proposition requires;

- an increase in the amount of capital spending dedicated to energy conservation
- the wise investment of capital spending to modernize and maximize the efficiency of all building systems
- energy procurement through proven networks
- continued education of building operators and managers
- changing the way building occupants use energy
- maximizing building management software use
- investing in building envelope technology
- continuing development of relationships with our local energy providers to maximize incentive plans and rebate
- staff dedicated to monitoring, reporting and managing energy use

- **ENERGY MANAGEMENT GOALS AND OBJECTIVES:**

To accomplish the stated objective of reducing energy consumption by 15% over 5 years, certain goals must be achieved.

- **GOAL: Implement Strategic Management Practices:**
  - Purchasing/Procurement Procedures and Specifications
  - Enhanced Design & Construction Practices
  - Enhanced Facility Operating Practices
  - Cost effective Facility upgrades
  - Active commodity management
  - Monitoring, tracking, reporting and improving performance

- **GOAL: Obtain Organizational Approval of SEMP and Commitment of Resources:**
  - Executive approval and commitment to required financial and human resources
  - Support from other key staff (Finance Dept., Material Management Dept., Facilities Management Dept., and Corporate Planning Dept.)
  - Creation of processes to make resources available
  - Clarification and communication of staff roles and responsibilities, statement of performance goals, and energy management & reporting

- **GOAL: Implement financial practices and decision making processes:**
  - Money spent to achieve energy efficiency is viewed as an investment in our future contributing to the bottom line, and not a ‘’cost’
  - Financial Decision makers consistently use life cycle cost analysis on all new construction, major renovations and equipment replacement over $50,000.00.
  - Capital investments demonstrating a simple payback of 2-years or less qualifies as “pre-approved.”
  - Train energy management staff on financial practices/requirements and the decision making process
  - Decisions regarding energy management investments will become part of the HPHA’s high-level, long range capital budgeting process.
  - HPHA will establish funding resources dedicated to energy efficiencies with expectations that money be invested wisely in appropriate projects and equipment annually.

- **GOAL: Establish Purchasing Specifications for Energy Efficient Equipment and Services:**
  - Develop and consistently use purchasing specifications that minimize life-cycle costs for energy efficient equipment and services.
  - Establish efficiency specifications for standard equipment routinely replaced (lights, motors, drives, HVAC equipment)
  - Develop engineering tender documents that favour energy efficient equipment rather than 'lowest bid price received.'
  - Develop efficiency guidelines that apply Life Cycle Costing Analysis for custom equipment purchases, such as chillers.
  - Establish efficiency standards for design and construction, and for building operations, and for maintenance services.

- **GOAL: Implement Enhanced Design & Construction (D&C) Practices:**
  - Implement improved new construction practices in all construction projects over $500,000.00 that require early team collaboration and integrated design. (*Integrated Design [I.D.] is represented by the early collaboration of a construction team that is key to success. The 'team' may include the hospital construction manager, contracted construction managers, architects, engineers, contractors, commissioning agent and stakeholders [facility operators and maintenance personnel])*
  - Tenders, RFP's, contract terms and fee structures will support I.D. and enhanced D&C practices
  - Engineering and design decisions will support I.D. and enhanced D&C practices
  - Purchasing procedures and specifications will support I.D. and enhanced D&C practices
  - Rebates, incentives and tax credits (when available) will be considered in I.D. and enhanced D&C practices
  - All I.D. Team Members will be educated in I.D. and enhanced D&C practices with 'roles and responsibilities' clearly stated along with expectations as they relate to design, construction, testing, commissioning and monitoring.
  - Establish clear energy performance targets for new buildings, major renovations or retro-fits of major equipment. Incorporate LEED type initiatives in building design whenever practical.
  - Establish a baseline for measuring performance goals, using ASHRAE standards when Canadian standards do not exist.
  - Measure energy performance and improve building performance over time using Kaizen-like processes or re-commissioning regularly using an approved commissioning agent.

- Specify commissioning as standard procedure in all new construction and major renovations
- 100 per cent of all building systems will be designed, installed, and calibrated to operate as designed, and building operators will be trained in their proper operation
- The Design Team, along with the commissioning agent and building operators will work closely throughout the design process and the hand-over process to ensure a smooth transition

- **GOAL: Improve Building Operating Performance:**
  - All building equipment will be properly maintained to achieve energy efficient results while supporting patient care, facility comfort and safety.
  - Building operators will achieve a balance of energy efficiency, accepted building operating practices and patient care/facility comfort while maintaining buildings to accepted CSA standards
  - Building operators will be encouraged to upgrade their abilities and knowledge through continuing education. Training in new technologies and knowledge of new equipment/processes are essential in the proper operation of an energy efficient building.

- **GOAL: Implement cost-effective Facility upgrades:**
  - Implement equipment and system upgrades where justified by life-cycle cost analysis
  - Expand the use of qualified service providers, either internal or external, as needed
  - Develop standard RFP documents and engineering standards
  - Expand the use of qualified building envelope professionals to ensure a functional relationship between building equipment and how it operates, and the ability of the physical building to support efficiency expectations.

- **GOAL: Actively manage Energy Commodity**
  - Minimize the cost of utilities and mitigate the risk to market volatility. Utility costs include natural gas, electricity, water and sewage.
  - Participate in programs with proven ability to purchase utilities at best price available, ie: HealthPRO

- **GOAL: Monitor, Track and Reward progress**
  - Dedicated staff will track progress against the SEMP and report
  - Publish Energy Reductions annually
  - Establish a reward/recognition program for successes

- **Conclusion:**

HPHA has a record of documented successes regarding progressive Energy Management. On-going operations, past projects and future considerations target efficiencies and conservation. Programs directed at changing the culture of all staff members have been successful, specifically the HPHA association with LHSC and the "CHESTER" program. Annually, HPHA runs the Annual Chester Challenge where we track reductions in Energy Use for the month of June and run it as a contest, awarding the CHESTER Challenge Cup to the hospital demonstrating the biggest reduction in utility use. In June of 2013, St. Marys Memorial Hospital was awarded the CHESTER Challenge Cup after reducing their energy use by 18%. Clinton Public Hospital was a repeat winner in previous years. Establishing a recognizable energy mascot such as CHESTER within the Alliance gives staff focus and represents a physical connection to a faceless entity such as energy conservation. Continual improvement processes aid in making something that is good, better. After the Stratford General Hospital installed new boilers for better efficiencies, continual improvement processes led to being documented as "one of the most efficient" plants in North America, exceeding 95% efficient. SGH has played host to international guests who came to see our progress in efficiencies first hand.

Through all we've done, and of our successes, HPHA recognizes that more can be done and more will be done. Energy conservation and efficiencies are a journey we've undertaken with a culture change we've embraced.

Clinton - Hydro

Read Date	Usage kWh	Total
Apr. 18, 2011	100115	10883

Read Date	Due Date	# Days	Usage	Adjusted Usage	Units	Power Factor	Adjust. Factor	Total Bill
June 1,2012	July 8, 2011	43	102870.00	108569.00	kWh	0.93	1.0554	$13,872.17
July 1, 2012	Aug. 4, 2011	30	70830.00	74754.00	kWh	0.93	1.0554	$10,592.48
August 1, 2012	Sept. 2, 2011	31	83880.00	88527.00	kWh	0.93	1.0554	$12,171.13
Sept. 1, 2012	Oct. 5, 2011	31	74790.00	78933.00	kWh	0.93	1.0554	$8,829.34
Oct, 1, 2012	Nov. 4, 2011	30	65430.00	69055.00	kWh	0.93	1.0554	$9,163.90
Nov. 1, 2012	Dec. 2, 2011	31	69840.00	73709.14	kWh	0.93	1.0554	$8,971.18
Dec. 1, 2012	Jan. 2, 2012	30	66240.00	69909.70	kWh	0.93	1.0554	$8,496.50
Jan. 1, 2013	Feb. 2, 2012	31	70710.00	74659.00	kWh	0.93	1.0554	$9,202.91
Feb. 1, 2013	Mar. 12, 2012	31	75510.00	79693.25	kWh	0.93	1.0554	$8,796.29
Mar, 1, 2013	Apr. 2, 2012	29	62820.00	66300.00	kWh	0.93	1.0554	$7,855.12

Clinton

Invoice Date	Actual For	Western GJ	Western Base Fuel Price	Western Total	Eastern GJ	Eastern Base Price	Eastern Total	ECNG Fee	Utility Charges GJ	Utility Charges Price		Bill Total
Mar. 31, 2010	Feb. 2010	28	7.4632	$208.97	229	8.5931	$1,967.82	$21.11	$45.28			$2,243.18
Apr. 29, 2012	Mar. 2010	31	7.3081	$226.55	253	8.5436	$2,161.53	$23.34	$50.12			$2,461.54
31-May-10	Apr. 2010	30	7.1313	$213.94	245	8.4287	$2,065.03	$22.56	$48.51	123	4.1478	$510.18 $2,860.22
25-Jun-10	May-10	32	7.0094	$224.30	253	8.4175	$2,129.63	$23.40	$50.18			$2,427.51
28-Jul-10	Jun-10	31	7.0506	$218.57	245	8.4374	$2,067.16	$22.67	$48.57			$2,356.97
Aug.31, 2010	Jul-10	32	7.0269	$224.86	253	8.4719	$2,143.39	$23.39	$50.12			$2,441.76
Sept. 29, 2010	Aug. 2010	32	6.97	$223.04	253	8.4321	$2,133.32	$23.39	$56.15	-87	4.0955	-$356.31 $2,079.59
Oct. 29, 2010	Sept. 2010	31	6.9297	$214.82	245	8.3788	$2,052.81	$22.65	$48.72	-3	4.0433	-$12.13 $2,326.87
Nov. 30, 2010	Oct. 2010	32	6.9513	$222.44	253	8.4047	$2,126.39	$23.39	$50.12			$2,422.34
Dec. 23, 2010	Nov.2010	28	6.6089	$185.05	217	7.8384	$1,700.93	$20.42	$44.27			$1,950.67
Jan. 28, 2011	Dec. 2010	29	6.8228	$197.86	224	7.9776	$1,786.98	$21.11	$45.64			$2,051.59
Feb. 28, 2011	Jan. 2011	30	6.6897	$200.69	224	7.9871	$1,789.11	$21.16	$45.64			$2,056.60
Mar. 30, 201	Feb. 2011	27	6.8022	$183.66	203	7.964	$1,616.69	$19.09	$41.23	96	4.3394	$416.58 $2,277.25

St. Marys

82897

Billing Period	# Days	Current Read Date	Billing Date	Bill Total	Multiplier	Measured Consupmtion	Adjustment Factor	Adjusted Consumption	kW used	kVA Used	Power Factor	Billed kW
03/17/2010 - 04/17/2010	31	03/05/2010	17/04/2010	$6,606.83	240.0000	58809.00	1.0281000	60461	141.60	169.44	0.836	152.50
02/16/2010 - 03/17/2010	29	01/04/2010	17/03/2010	$6,152.79	240.0000	54415.00	1.0281000	55944	119.04	135.84	0.876	122.26
04/17/2010 - 05.16.2010	29	02/06/2010	16/05/2010	$6,591.65	240.0000	55267.00	1.0281000	56819	139.20	168.96	0.824	152.06
					240.0000		1.0307000					
06/16/201 - 07/16/2010	30	03/08/2010	16/07/2010	$10,035.34	240.0000	83641.00	1.0307000	86208	204.48	232.32	0.880	209.09
07/16/2010 - 08/17/2010	32	01/09/2010	17/08/2010	$10,715.55	240.0000	91571.00	1.0307000	94382	193.44	221.76	0.872	199.58
08/17/2010 - 09/16/2010	30	01/10/2010	16/09/2010	$7,321.43	240.0000	71434.00	1.0307000	73627	194.40	220.80	0.880	198.72
09/16/210 - 10/16/2010	30	02/11/2010	16/10/2010	$6,668.72	240.0000	58110.00	1.0307000	59874	153.12	175.68	0.872	158.11
10/16/2010 - 11/16/2010	31	01/12/2010	16/11/2010	$7,092.71	240.0000	56267.00	1.0307000	57994	124.32	141.60	0.878	127.44
11/16/2010 - 12/16/2010	30	04/01/2011	16/12/2010	$6,882.29	240.0000	53352.00	1.0307000	54990	104.16	116.64	0.893	104.98
12/16/2010 - 1/15/2011	30	03/02/2011	15/01/2011	$6,233.44	240.0000	52590.00	1.0307000	54204	102.24	114.24	0.895	102.82
1/15/2011 - 02/16/2011	32	03/03/2011	16/02/2011	$6,775.63	240.0000	55582.00	1.0307000	57288	102.72	112.80	0.911	102.72

St. Marys

Invoice Date	Actual For	Western GJ	Western Base Fuel Price	Western Total	Eastern GJ	Eastern Base Price	Eastern Total	ECNG Fee	Utility Charges GJ	Utility Charges Price		Bill Total
Mar. 31, 2010	Feb. 2010	45	7.4176	$333.79	365	8.6113	$3,143.12	$33.69	$72.31			$3,582.92
Apr. 29, 2012	Mar. 2010	50	7.236	$361.80	405	8.5248	$3,452.54	$37.26	$80.05			$3,931.65
31-May-10	Apr. 2010	48	7.1198	$341.75	391	8.4358	$3,298.40	$36.03	$77.49	-654	4.139	-$2,706.91	$1,046.76
25-Jun-10	May-10	51	7.0249	$358.27	405	8.399	$3,401.60	$37.36	$80.14			$3,877.36
28-Jul-10	Jun-10	50	6.9828	$349.14	391	8.4444	$3,301.76	$36.19	$77.58			$3,764.67
Aug.31, 2010	Jul-10	51	7.0424	$359.16	405	8.4532	$3,423.55	$37.35	$80.05			$3,900.11
Sept. 29, 2010	Aug. 2010	51	6.9847	$356.22	405	8.4135	$3,407.47	$37.36	$89.68	-139	4.0944	-$569.12	$3,321.61
Oct. 29, 2010	Sept. 2010	49	7.0024	$343.12	391	8.3859	$3,278.89	$36.15	$77.81	-5	3.874	-$19.37	$3,716.59
Nov. 30, 2010	Oct. 2010	51	6.9667	$355.30	405	8.3861	$3,396.37	$37.36	$80.06			$3,869.09
Dec. 23, 2010	Nov.2010	46	6.5187	$299.86	352	7.8295	$2,755.98	$33.10	$71.73			$3,160.67
Jan. 28, 2011	Dec. 2010	47	6.8211	$320.59	363	7.9764	$2,895.43	$34.22	$73.95			$3,324.19
Feb. 28, 2011	Jan. 2011	48	6.775	$325.20	363	7.9858	$2,898.85	$34.30	$73.95			$3,332.30
Mar. 30, 201	Feb. 2011	43	6.9209	$297.60	328	7.9863	$2,619.51	$30.94	$66.81	155	4.3546	$674.96	$3,689.82

Seaforth

82963

Billing Period	# Days	urrent Read Dat	Billing Date	Bill Total	Multiplier	Measured Consupmtion	Adjustment Factor	Adjusted Consumption	kW used	kVA Used	Power Factor	Billed kW
03/17/2010 - 04/17/2	31	03/05/2010	17/04/2010	$7,709.96	300.0000	69990.00	1.0178000	71235	127.20	149.40	0.851	134.46
02/16/2010 - 03/17/2	29	01/04/2010	17/03/2010	$7,186.59	300.0000	66658.00	1.0178000	67844	132.00	154.20	0.856	138.78
04/17/2010 - 05.16.2(	29	02/06/2010	16/05/2010	$7,636.13	300.0000	63149.00	1.0178000	64273	124.80	142.80	0.874	128.52
					300.0000		1.0204000					
06/16/201 - 07/16/20	30	03/08/2010	16/07/2010	$10,755.42	300.0000	91576.00	1.0204000	93444	196.20	227.40	0.863	204.66
07/16/2010 - 08/17/2	32	01/09/2010	17/08/2010	$12,038.80	300.0000	108792.00	1.0204000	111011	201.60	232.80	0.866	209.52
08/17/2010 - 09/16/2	30	01/10/2010	16/09/2010	$7,869.93	300.0000	81380.00	1.0204000	83040	187.20	220.20	0.850	198.18
09/16/210 - 10/16/20	30	02/11/2010	16/10/2010	$7,712.94	300.0000	70092.00	1.0204000	71521	175.80	208.20	0.844	187.38
10/16/2010 - 11/16/2	31	01/12/2010	16/11/2010	$8,400.80	300.0000	70481.00	1.0204000	71918	129.00	150.00	0.860	135.00
11/16/2010 - 12/16/2	30	04/01/2011	16/12/2010	$8,855.69	300.0000	71945.00	1.0204000	73412	131.40	154.20	0.852	138.78
12/16/2010 - 1/15/20	30	03/02/2011	15/01/2011	$8,017.95	300.0000	70422.00	1.0204000	71858	130.80	153.60	0.852	138.24
1/15/2011 - 02/16/20	32	03/03/2011	16/02/2011	$8,967.07	300.0000	76883.00	1.0204000	78451	130.20	151.80	0.858	136.62

Seaforth

Invoice Date	Actual For	Western			Eastern			ECNG Fee	Utility Charges				Bill Total
		GJ	Base Fuel Price	Total	GJ	Base Price	Total			GJ	Price		
Mar. 31, 2010	Feb. 2010	53	7.3458	$389.33	426	8.6062	$3,666.24	$39.30	$84.35				$4,179.22
Apr. 29, 2012	Mar. 2010	58	7.2766	$422.04	472	8.532	$4,027.10	$43.45	$93.37				$4,585.97
31-May-10	Apr. 2010	56	7.117	$398.55	457	8.4186	$3,847.30	$42.02	$90.40	-357	4.1435	-$1,479.23	$2,899.04
25-Jun-10	May-10	60	6.9563	$417.38	472	8.4061	$3,967.68	$43.57	$93.48				$4,522.11
28-Jul-10	Jun-10	58	7.0219	$407.27	457	8.4272	$3,851.23	$42.20	$90.50				$4,391.20
Aug.31, 2010	Jul-10	59	7.101	$418.96	472	8.4604	$3,993.31	$43.56	$93.37				$4,549.20
Sept. 29, 2010	Aug. 2010	60	6.9253	$415.52	472	8.4207	$3,974.57	$43.56	$14.60	-163	4.0726	-$663.83	$3,784.41
Oct. 29, 2010	Sept. 2010	58	6.9003	$400.22	457	8.3688	$3,824.54	$42.16	$90.77	-5	4.52	-$22.60	$4,335.09
Nov. 30, 2010	Oct. 2010	60	6.907	$414.42	472	8.3933	$3,961.64	$43.58	$93.38				$4,513.02
Dec. 23, 2010	Nov.2010	58	6.5341	$378.98	444	7.8456	$3,483.45	$41.81	$90.66				$3,994.89
Jan. 28, 2011	Dec. 2010	60	6.7533	$405.20	459	7.9731	$3,659.65	$43.26	$93.47				$4,201.58
Feb. 28, 2011	Jan. 2011	61	6.7379	$411.01	459	7.9825	$3,663.97	$43.35	$93.47				$4,211.80
Mar. 30, 201	Feb. 2011	54	6.9656	$376.14	415	7.9781	$3,310.91	$39.10	$84.43	196	4.3527	$853.13	$4,663.71

46 General Hospital Drive
82554

Billing Period	# Days	Current Read Date	Billing Date	Bill Total	Multiplier	Measured Consupmtion	Adjustment Factor	Adjusted Consumption	kW used	kVA Used	Power Factor	Billed kW
03/17/2010 - 04	31	03/05/2010	17/04/2010	$65,955.87	4800.0000	628092.00	1.0178000	639271	1065.60	1180.80	0.902	1065.60
02/16/2010 - 03	29	01/04/2010	17/03/2010	$61,681.58	4800.0000	607174.00	1.0178000	617981	1065.60	1180.80	0.902	1065.60
04/17/2010 - 05	29	02/06/2010	16/05/2010	$77,688.11	4800.0000	661615.00	1.0178000	673391	1603.20	1795.20	0.893	1615.68
					4800.0000		1.0204000					
06/16/201 - 07/	30	03/08/2010	16/07/2010	$114,206.05	4800.0000	1022059.00	1.0204000	1042908	2064.00	2294.40	0.900	2064.96
07/16/2010 - 08	32	01/09/2010	17/08/2010	$10,715.55	4800.0000	91571.00	1.0204000	94382	193.40	221.76	0.872	199.58
08/17/2010 - 09	30	01/10/2010	16/09/2010	$81,192.19	4800.0000	905976.00	1.0204000	924457	1872.00	2083.00	0.899	1874.88
09/16/210 - 10/	30	02/11/2010	16/10/2010	$78,963.15	4800.0000	775627.00	1.0204000	791449	1699.20	1891.20	0.898	1702.05
10/16/2010 - 11	31	01/12/2010	16/11/2010	$87,393.05	4800.0000	763378.00	1.0204000	778950	1468.80	1641.60	0.895	1477.44
11/16/2010 - 12	30	04/01/2011	16/12/2010	$83,023.82	4800.0000	700450.00	1.0204000	714739	1180.80	1305.60	0.904	1180.80
12/16/2010 - 1/	30	03/02/2011	15/01/2011	$76,799.32	4800.0000	708634.00	1.0204000	723090	1190.40	1324.80	0.899	1192.32
1/15/2011 - 02/	32	03/03/2011	16/02/2011	$85,864.64	4800.0000	763574.00	1.0204000	779151	1209.60	1324.80	0.913	1209.60

Stratford

Invoice Date	Actual For	Western Base Fuel GJ	Western Base Fuel Price	Western Base Fuel Total	Eastern Base GJ	Eastern Base Price	Eastern Base Total	ECNG Fee	Utility Charges	Volume Balancing GJ	Volume Balancing Price	Volume Balancing	Bill Total
Mar. 31, 2010	Feb. 2010	571	7.3514	$4,197.65	4595	8.6022	$39,527.11	$423.75	$909.41				$45,057.92
Apr. 29, 2012	Mar. 2010	627	7.257	$4,550.14	5087	8.535	$43,417.55	$468.58	$1,006.67				$49,442.93
31-May-12	Apr. 2010	601	7.1505	$4,297.45	4923	8.4256	$41,479.23	$452.97	$974.47	-12,155	4.1398	-$50,319.27	-$3,115.15
25-Jun-10	May-10	643	7.0072	$4,505.63	5087	8.4091	$42,777.09	$469.91	$1,007.85				$48,760.48
28-Jul-10	Jun-10	625	7.025	$4,390.63	4923	8.4343	$41,522.06	$454.97	$975.58				$47,343.23
Aug.31, 2010	Jul-10	641	7.0466	$4,516.87	5087	8.4635	$43,053.82	$469.70	$1,006.67				$49,047.07
Sept. 29, 2010	Aug. 2010	642	6.9779	$4,479.81	5087	8.4237	$42,851.36	$469.81	$1,127.76	-1,754	4.0804	-$7,157.02	$41,771.72
Oct. 29, 2010	Sept. 2010	621	6.9482	$4,314.83	4923	8.3757	$41,233.57	$454.64	$978.47	-58	4.2002	-$243.61	$46,737.90
Nov. 30, 2010	Oct. 2010	642	6.9599	$4,468.26	5088	8.3946	$42,711.72	$469.87	$1,006.76				$48,656.61
Dec. 23, 2010	Nov.2010	686	6.5748	$4,510.31	5289	7.8379	$41,454.65	$497.78	$1,078.89				$47,541.64
Jan. 28, 2011	Dec. 2010	712	6.7725	$4,822.02	5465	7.9693	$43,552.22	$514.87	$1,112.25				$50,001.36
Feb. 28, 2011	Jan. 2011	722	6.7746	$4,891.26	5465	7.9787	$43,603.60	$515.97	$1,112.25				$50,123.08
Mar. 30, 201	Feb. 2011	647	6.9185	$4,476.27	4936	7.9825	$39,401.62	$465.37	$1,004.87	2,331	4.3555	$10,152.67	$55,500.80