



Gifford Medical Center - Energy Action Plan (2014)

Purpose: To reduce operational cost savings, improve building comfort & performance, improve patient experience, be an effective steward of resources, and reduce our environmental impact.

Current: Annual energy costs (baseline): \$ 683,171

Annual energy use per square-foot: 203 kBtu

Goals: Reduce energy costs by X%: \$ 47,822

Reduce energy use per sq-ft by 7%: 189 kBtu



Signed:

Doug Pfohl, Director of Facilities

Signed:

Timothy Perrin, Senior Account Manager

Action Plan			Completed Efforts (2011-13)							
	Lead	Project Costs	Project Description	Date	Proj. Costs	Incentives	Annual Savings	kWh Reduce	gal Reduce	
1. Optimization of building HVAC systems ✓ Mar14 Balancing of air-side HVAC systems to ensure proper distribution & pressures Aug14 Conversion of MOB constant-volume systems to variable-air-volume Dec14 Study operation of run-around heat recovery to determine upgrade potential	D.Pfohl	\$ 79,000	Screw-base LED lighting	Feb11	\$ 6,944	\$ 6,550	\$ 7,388	50,232		
			Server virtualization	Apr11	\$ 7,920	\$ 1,200	\$ 2,309	23,347		
			Occupancy sensors	Aug11	\$ 5,501	\$ 3,000	\$ 3,240	29,332		
			Energy audit - LN Consulting	Jul12	\$ 35,500	\$ 21,983				
			MOB - 1st floor VAV conversion	Aug12	\$ 3,440	\$ 1,000	\$ 703	8,120		
2. Optimize lighting, IT systems, and plug loads across campus Jul14 Explore lighting audit for targeted applications across hospital Aug14 Pilot use of plug-load controllers to determine deployment opportunities	D.Pfohl	\$ 2,000	Kitchen exhaust fan controls	Dec13	\$ 54,483	\$ 6,000	\$ 27,807	81,467	6,866	
			LED parking lot lighting	Dec13	\$ 28,608	\$ 12,000	\$ 6,927	50,273		
			Totals:			\$ 142,396	\$ 51,733	\$ 48,374	242,771	6,866
			Total Energy Use per Square-Foot							
3. Upgrade of chilled water plant systems Sep14 Purchase and installation of new chiller Sep14 Installation of eGauge power submetering to monitor chilled water systems Oct14 Commissioning of chilled water systems for optimized performance	D.Pfohl	\$ 340,795								
4. Analyze use of waste heat to supplement hot water loads Flow monitoring of domestic hot water loads										
5. Build operations and maintenance practices to reduce energy use Build a cross-departmental Energy Team and kickoff regular meetings Hold an informational seminar for hospital employees Establish policies to reduce energy consumption for lighting systems Verify operational control strategies and scheduling for HVAC systems Establish purchasing specifications for energy efficient equipment										
Totals:		\$ 451,795								