

Welcome to our Jefferson Currents Newsletter. This newsletter will highlight our energy conservation efforts throughout the enterprise.

The total energy spend for Jefferson is now more than \$40 Million per year. The challenge – how do we manage this for maximum savings. The good news – we have a solid proven plan for doing this, as described in this newsletter. But we need your help.

Every employee in every Department can help to reduce our energy costs.

**Please learn more...
and take action!**

Jefferson Begins Major Enterprise-Wide Energy Savings Project

Jefferson works hard to reduce energy costs. The Enterprise took an important step in this direction in April 2018. Jefferson contacted several experienced Energy Service Companies (ESCO) to ask for a Bid to conduct a major Enterprise-wide energy cost reduction project.

This is not the first time that Jefferson will be doing this kind of project. Past projects resulted in the savings of millions of dollars in energy costs. But these were only for the Center City facilities. This 2018 project will include all major buildings in the Jefferson Health Enterprise.

The selected company for this new energy project was AECOM (www.aecom.com). AECOM met Jefferson's rigorous selection criteria for experience and price. Jefferson awarded the work contract in July of 2018.

The following list identifies the work activities for this new energy-saving project. A general timeline for the work is also shown.

Project Work Activity	General Timeline
Conduct energy audits for major buildings in the entire Jefferson Enterprise	Fall 2018
Identify a long list of energy saving projects and cost saving solutions.	November 2018
Selection of the final list of energy saving projects to be presented to the Jefferson Board of Directors.	December 2018
Approval of selected projects by the Jefferson Board of Directors.	January 2019
Start construction of the projects.	Starting July 2019, for FY 2019-2020



Frank Mirarchi, Facilities Services Supervisor, checks steam equipment in Jeff Hall.

Major Enterprise-Wide Energy Savings Project (cont.)

Initial site visits to all Jefferson buildings throughout the Enterprise occurred during August of 2018. AECOM representatives received a building tour and information from building Facilities personnel. Jefferson Energy Director, Mr. Randy Haines, also participated in these tours.

The following photos show some of these visits to Jefferson facilities. Local Jefferson Facilities personnel for the building are listed.



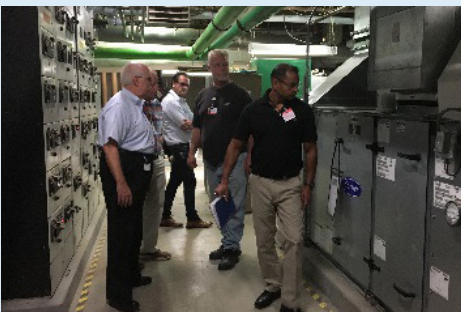
Jefferson Bucks Hospital Randy Haines, Director of Energy Management, Keith Jellyman, Supervisor, Damee Choi, AECOM



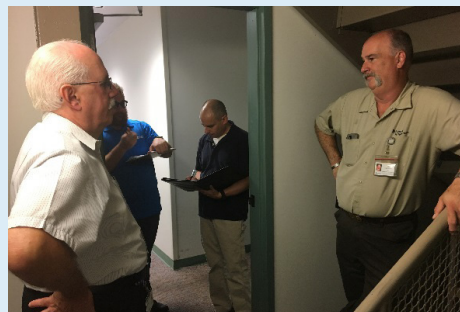
Jefferson Cherry Hill Hospital Ed Carns, Lead Mechanic, Randy Haines, Director of Energy Management, Jonathan Thompson, AECOM



Jefferson Stratford Hospital Kevin Whitten, AECOM, Frank Marshall, Lead Mechanic, Ken Mallette, Boiler Operator, Randy Haines, Director of Energy Management



Jefferson Methodist Hospital Randy Haines, Director of Energy Management, John Gummel, AECOM, John Cassidy, Electrician, Joe Burke, API, Vipin Goel, AECOM



Abington Hospital Randy Haines, Director of Energy Management, Kevin Whitten, AECOM, Jeff Ottaviano, AECOM, Donald Tucker, Operations Manager



Jefferson Torresdale Hospital Damee Choi, AECOM, Randy Haines, Director of Energy Management, Jim Creighton, AECOM, Jim Zernhelt, Project Manager, Alex Martinez, Martinez CX, Kevin Whitten, AECOM



Abington Hospital Chuck Kluge, Director of Facilities, Jim Creighton, AECOM, Kevin Whitten, AECOM, Randy Haines, Director of Energy Management, Damee Choi, AECOM



Jefferson Frankford Hospital Jim Creighton, AECOM, Damee Choi, AECOM, Alpeh Dharia, AECOM, Randy Haines, Director of Energy Management, Tim Mang, Supervisor



Abington Health Center-Warminster Charles McClinton, Supervisor, Randy Haines, Director of Energy Management, Damee Choi, AECOM

Jefferson's Facilities Controls System

Delivering a World Class Health Care Experience to Patients at the Lowest Possible Costs

The Facilities Services Department at Jefferson manages thousands of pieces of equipment. These can include:

- The temperature in a room.
- Whether the outside lights are on or off.
- Whether a necessary piece of equipment is available for use

How is this done? With a sophisticated, state-of-the-art controls system.

Mr. Bruce Henderson is the Jefferson Controls System Administrator. Bruce has been doing this job since 1992, but Bruce has been here at Jefferson since 1978.

The Jefferson Controls Group is in the Facilities Department. It includes five technicians in the Control shop and five Control Room operators. They maintain and operate over two dozen important systems for the campus buildings.

A partial list of these includes:

- Operating room temperature and humidity control and monitoring
- Monitoring and control of Isolation Rooms, Bio-Safety Rooms, Clean Rooms, Pharmacy Operations, and more
- Patient room environmental controls, e.g. temperature, shade and lighting
- Chillers and Chilled Water Systems throughout the campus
- Vivarium temperature and humidity control
- Medical gas alarms
- Interior and exterior lighting
- Heat and water pumps throughout the campus
- The over 150 air handlers on campus
- Monitoring and control of building generators

This group also works with Jefferson's heating and air conditioning systems vendor. This vendor is Siemens. Siemens is one of the largest operations control companies in the world. The Jefferson Controls Group and Siemens manage indoor conditions for all campus buildings.

The photo of the Jefferson control room below implies a level of "calm" that rarely exists. The screens in the control room often show alarms. These alarms could be for anything from the temperature in a room, to the humidity in an animal research lab. But they could also be for the functioning of a major building cooling system.

The control room staff must assess each alarm and decide on an action to take. This action could be simple, further monitoring. The alarm could, though, be for a piece of equipment that will need to an inspection and possible repair.

Every part of Jefferson's advanced facilities system is important. This is because it helps Jefferson deliver a world class health care experience to every Jefferson patient... at the lowest cost possible.



Tom McHugh at work in the Facilities Control Room.

As we move into Winter, here's some things that you can do to stay comfortable and save money on your energy costs.

Bundle up to stay warm and save money. A winter sweater and warm socks will keep you warm and save energy and costs. Also, keep a warm blanket on your couch and add an area rug to insulate the floor.

Use ceiling fans, even in the winter. Ceiling fans give you airflow. Turn your ceiling fan on with a low speed to gently push hot air that rises to the ceiling back down to your living space.

Adjust the thermostat at night. According to the U.S. Department of Energy, you can save about 10 percent per year on your heating bills by turning your thermostat down 10 to 15 degrees for eight hours. An adjustable thermostat will help you do this.

Get free heat from the sun. Open the curtains on your south-facing windows during winter days to bring free heat into your home. Close your window coverings when the sun goes down to keep the heat inside.

Only heat the rooms you use. You can close vents or registers in rooms you don't use. This, along with setting your thermostat to 62 degrees can help you save winter energy costs. But don't forget that sweater.

Invest in insulation and weather stripping. Stop wasting heat you pay for by letting it leak from your house. Insulate all areas where heat can escape, like attics, doors and windows. It's "Do-It-Yourself" and low cost.

Decorate with LED lights for the holidays. LED holiday lights can use up to 75% less energy and will last longer too. And think about unplugging your holiday lights before going to bed or leaving the house for extra savings.



Caulk or close all openings that let air in.



Keep your thermostat set to 68 degrees, and invest in a programmable thermostat, if possible.



Use energy saving LED bulbs where possible.

Have an Energy Saving Idea? We want to hear about it.

Please send your idea to Randolph.Haines@jefferson.edu



Look for the EPA's Energy Star label on products that use less energy, save money on your utility bills and help protect the environment.