

Energy Conservation in Health Care Facilities

Minnesota Health Care Engineers Association September 16, 2010

Entire presentation is posted at:

- <http://MHCEA.org> and
- www.health.state.mn.us/divs/fpc/engineering.html

Energy Benchmarking Resources

ENERGY STAR Portfolio Manager Program

www.energystar.gov/benchmark

1-888-STAR-YES (1-888-782-7937)

Minnesota B3 benchmarking - *For state and local government buildings*

<http://www.mnbenchmarking.com/> (click on “Contact Us”)

Financing

Public Buildings Enhanced Energy Efficiency Program

www.PBEEEP.org/

Federal Tax Credits for Energy Efficiency

<http://www.energysavers.gov/financial/70010.html>

Utility conservation goals

Minn. Stat. §216B.241 Subd. 1a

<https://www.revisor.mn.gov/statutes/?id=216B.241>

Other resources

U.S. Department of Energy Hospital Energy Alliance

http://www1.eere.energy.gov/buildings/alliances/hospital_energy_alliance.html

Minnesota Save Energy Now Industrial Energy Efficiency Workshop – Oct. 20

<http://www.mntap.umn.edu/>

Required Procedure

1. Energy Audit to identify opportunities
 - Must consider surgery suite HVAC requirements of the Minnesota Rules and ASHE compliance
 - Must provide drawings and specifications for as built and proposed changes
2. Submit to MDH for design and engineering computations review
3. Work cannot start until MDH approval letter is received

Presenter contacts

James P. Loveland, P.E.

Minnesota Department of Health
Engineering Services Section
(651) 201-3710
Jim.Loveland@state.mn.us

Bruce Nelson, P.E.

Minnesota Department of Commerce
Office of Energy Security
(651) 297-2313
Bruce.Nelson@state.mn.us

Val Munshi, P.E.

Gilbert Mechanical Contractors, Inc.
(952) 842-5917
VMunshi@Gilbertmech.com

Bob Johnson

Director of Engineering Services
North Memorial Health Care

Bob.Johnson@NorthMemorial.com

| Audit Levels: | Complexity | Approximate Cost | Outcomes |
|---------------------------------------|--|---|--|
| Walk-Through Audit | Basic – minimal time, detail, relative energy performance identified | \$0.01 to \$0.08 per Sq. Ft. | <ul style="list-style-type: none"> ✓ Identify major problem areas ✓ Find quick payback solutions ✓ Identify which buildings to do first |
| Site Audit | Moderate – energy measures specified and paybacks calculated | \$0.05 to \$0.15 per Sq. Ft. | <ul style="list-style-type: none"> ✓ Estimates of costs and savings for energy saving opportunities |
| Comprehensive Audit (Recommissioning) | High-complete documentation and equipment modifications | Most expensive but also the most benefits \$0.10 to \$0.30 per Sq. Ft. | <ul style="list-style-type: none"> ✓ Implement most cost effective priority projects ✓ Cost savings dividends realized |