

Responses from Other State Agencies
On
Development of an Energy Efficiency and Sustainable Design Policy
SHCC Facility Energy Efficiency & Sustainability Work Group
June 23, 2010

Background

At the May 20th meeting of the SHCC Facility Energy Efficiency & Sustainability Work Group, members asked that the CON Section report back to the work group at its June 23rd meeting on what energy efficiency and sustainable design policies have been developed by other state agencies.

Question asked of Other State Certificate of Need Agencies:

North Carolina Governor Beverly Purdue requested that the State Health Coordinating Council (SHCC) develop a policy and CON rule to address more energy efficient and sustainable building design and construction for certificate of need applicants proposing new or replacement health care facilities. Does your state agency already have such a policy/CON rule in place that you would be willing to share with us? Or, if your agency is in the process of developing such a policy/rule, would you share your progress to-date?

Responses to Question

Of the other 35 state and the District of Columbia agencies with a Certificate of Need program, a total of 29 state agencies responded back. To-date, the District of Columbia and 6 other state agencies have not responded. Of the state agencies that reported, the majority (23) responded that they do not have an energy efficiency or “*green policy*” policy and are not currently developing one. However, 3 state agencies (Massachusetts, Maryland and Maine) do have a green policy, which they provided to us. Also, 3 other state agencies (Georgia, Washington, and Vermont) do not have an energy efficiency policy, but nevertheless review a CON applicant’s proposed facility relative to energy efficiency goals or LEED certification points. See the summary table below.

State	Does your State Agency have an Energy Efficiency/Sustainable Design Policy in place, or are you currently developing one?			
	Yes	No	No Response	Other
Alabama		X		
Alaska			X	
Arkansas		X		
Connecticut		X		
DC			X	
Delaware		X		
Florida			X	
Georgia				X
Hawaii		X		
Illinois		X		
Iowa		X		
Kentucky		X		
Louisiana		X		
Maine	X			
Maryland	X			
Massachusetts	X			
Michigan		X		
Mississippi		X		
Missouri		X		
Montana		X		
Nebraska		X		
Nevada			X	
New Hampshire		X		
New Jersey		X		
New York		X		
Ohio		X		
Oklahoma		X		
Oregon			X	
Rhode Island			X	
South Carolina		X		
Tennessee		X		
Virginia		X		
Vermont				X
Washington				X
West Va.			X	
Wisconsin		X		

States with a Green Policy

Massachusetts:

Excerpt from “*The Department of Health (The Department), Determination of Need Guidelines for Environmental and Human Health Impact, September 2008,*” page 1:

“...The Department adopted the Leadership in Energy and Environmental Design-Health Care (LEED-HC), Green Guide for Healthcare (GGHC) or their equivalent, nationally accepted best practices standard as part of the Determination of Need (DoN) review process to ensure that Massachusetts health-related institutions are adopting and using nationally accepted best practices in designing, building, renovating and operating licensed facilities. The Guidelines incorporate by reference the LEED-HC, the Green Guide and any equivalent current nationally accepted best practice standard.

...

Pursuant to these DoN guidelines, applicants shall utilize the Leadership in Energy and Environmental Design-Health Care (LEED-HC), the Construction Section of the Green Guide for Healthcare (GGHC)...or with the approval of the Department, the equivalent current nationally accepted best practice standard in all DoN applications as one of their Factor 8 Environmental Impact requirements. To demonstrate their consideration of and commitment to such standards, applicants shall submit to the Department as part of their DoN application a provisional green and health building strategy assessment (as referenced in LEED-HC, GGHC or other Department approved equivalent current nationally accepted best practice standard) based on the most current plans for the project to indicate the likely strategies to be employed to meet the applicable percentage threshold. Applicants will then submit the completed certifiable green and healthy strategy credit point assessment as part of the plan review. DoN application approval will consider but not be contingent upon the information included in the provisional assessment, but plan review approval will be contingent on the final credit assessment meeting the applicable percentage threshold.

All new DoN applications filed on or after January 1, 2009 related to new construction or gut renovation projects in acute care hospitals, chronic disease hospitals, rehabilitation hospitals and ambulatory surgery clinics that exceed the DoN capital expenditure minimum, as recalculated annually, shall meet all of the Prerequisites and achieve at least 50% of the possible points for the Construction Section of the Leadership in Energy and Environmental Design-Health Care (LEED-HC), GGHC, or the Department’s approval the equivalent current nationally accepted best practice standard. This is the percentage needed to achieve a certifiable ‘silver level’ green building.*

All new DoN applications filed on or after July 1, 2009 related to new construction or gut renovation projects in nursing homes that exceed the DoN capital expenditure minimum, as recalculated annually, shall meet all of the Prerequisites, and achieve a least 50% of the possible points

Ancillary buildings such as health care facility water treatment plants or other building types seeking DoN approval shall meet all the Prerequisites, and achieve at 50% of the possible points...

DPH recognizes the 50% reference benchmark is likely soon to be viewed as overly modest, due to rapid advances in environmental public health science, green and healthy building technology, green building standards and competition amongst providers. Therefore, DoN applicants are strongly encouraged to be aggressive in exceeding the above benchmarks.

**defined as construction within an existing building that requires complete demolition of all non-structural building components. After demolition, only the floor, deck above, outside walls and structural columns would remain.*

According to Joan Gorga, Director of Determination of Need (DoN), the agency can accept only a rough idea of the point totals for an applicant's project because much depends on the choice of materials and the final project plans that go through plan review. The engineers in plan review (part of licensure) are the ones who really decide if an applicant's project meets the Guidelines.

Maryland

2009 SHP Policy 3.2: *"All Maryland hospitals and health systems will consider smart and sustainable growth policies as well as green design principles in hospital siting decisions and facility design choices.*

...

CON regulation should also assure that facility designs reflect the state-of-the-art in facilitating safer patient care, improving patient outcomes, and minimizing negative environmental impacts."

Excerpt from the 2009 Maryland SHP, Project Review Standard, page 11:

"The standards in this section are intended to guide reviews of Certificate of Need applications and exemption requests involving acute care general hospital facilities and services. An applicant for a Certificate of Need must address, and its proposed project will be evaluated for compliance with, all applicable review standards. An applicant for a Certificate of Need exemption must address, and its proposed project will be evaluated for consistency with, all applicable review standards."

Standard (11):

Efficiency. *A hospital shall be designed to operate efficiently. Hospitals proposing to replace or expand diagnostic or treatment facilities and services shall:*

(a) Provide an analysis of each change in operational efficiency projected for each diagnostic or treatment facility and service being replaced or expanded, and document the manner in which the planning and design of the project took efficiency improvements into account; and (b) Demonstrate that the proposed project will improve operational efficiency when the proposed replacement or expanded diagnostic or treatment facilities and services are projected to experience increases in the volume of services delivered; or (c) Demonstrate why improvements in operational efficiency cannot be achieved."

According to Pamela Barclay, Director, Center for Hospital Services, Maryland Health Care Commission, the CON Division is beginning the process of developing CON standards regarding energy efficiency and sustainable design.

Maine

The Draft 2010-2012 Maine State Health Plan lists a total of 10 "attributes" an applicant needs to meet to be consistent with the goals of the SHP. Projects that meet more of these attributes will receive higher priority than projects that meet fewer of these attributes.

Specifically, Attribute #8 states:

"The project meets at least 'Gold Standard' certification by LEEDS by incorporating 'green' best practices in building construction, renovation and operating to minimize environmental impact both internally and externally."

According to Catherine Cobb, Director of Licensure & Regulatory Services, the “*Gold Standard*” is being added to the new SHP. There was previously a requirement that CON projects get priority for considering LEEDS, which meant that an applicant was working with a LEED certified architect. However, only one outpatient health care facility in Maine has achieved LEED Silver Standard, and none have met the Gold Standard.

States which evaluate CON facility energy efficiency and LEEDs certification, but without a written policy

Vermont

Efficiency Vermont, administered by Vermont Energy Investment Corporation (VEIC), is an independent non-profit energy services organization under contract to the Vermont Public Service Board. Efficiency Vermont provides technical assistance and financial incentives to Vermont households and businesses, to help them reduce their energy costs with energy-efficient equipment and lighting and with energy-efficient approaches to construction and renovation.

Although Vermont’s State Health Plan does not have an energy efficiency policy and related CON standards, the CON agency does require an applicant to meet with Efficiency Vermont to assist them in developing an energy saving plan or strategies. Efficiency Vermont provides a letter to the CON agency telling them that the CON applicant has met with them.

Georgia

They do not have a specific CON rule addressing energy efficiency and sustainable design for healthcare facilities. However, the Healthcare Facility Regulation Division which reviews a CON applicant’s facility plan, does so in accordance with the “*2010 Guidelines for Design and Construction of Health Care Facilities.*” Provided below are two energy efficiency regulations excerpted from the 2010 Guideline:

*“*1.2-6.2.1.4 Energy efficiency. Efficient mechanical and electrical systems shall be selected and sized to meet loads, efficiently utilize space, and consider climate characteristics, daylighting, and building orientation to significantly reduce overall energy demand and consumption.*

(1) Energy efficiency goals shall be considered in all phases of facility development or renovation. Architectural elements that reduce energy consumption shall be considered as part of facility design.

(2) The quality of the health care facility environment shall be supportive of the occupants and function served. Therefore, design for energy efficiency shall enhance and not adversely affect patient health, safety, or accepted personal comfort levels.

***A1.2-6.2.1.4 Energy efficiency.** Health care facilities should set energy efficiency goals (e.g., application of ASHRAE 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings; design to earn the EnergyStar or a number of LEED energy points) and consider energy efficiency strategies that include (but are not limited to) the following examples:*

1. On major new projects, consider the use of computer modeling early in schematic design to assist in developing and assessing energy efficiency strategies and opportunities.

2. Reduce overall energy demand. Sample strategies for this purpose include using a high-efficiency building envelope; passive and low-energy sources of lighting (including daylighting); advanced lighting controls integrated with daylighting strategies; high-efficiency equipment, both as part of building mechanical and electrical systems (e.g., chillers, air handlers) and for plug loads (e.g., EnergyStar copiers, computers, medical equipment, and appliances); and heat recovery and natural ventilation.

3. Optimize energy efficiency. Mechanical/electrical control systems should optimize consumption to the minimum actual needs of the building. Consider using multiple modular HVAC equipment units or variable-speed drives for variable loads. Consider co-generation systems for converting natural gas to both heat (or cooling) and electricity. Select equipment with improved energy efficiency ratings.

4. *Reduce environmental impacts associated with combustion of fossil fuels and refrigerant selection. Consider various renewable sources of energy generation, including purchase of green power, solar and wind energy, or geothermal/ground source heat pumps.*”

According to Erik Hotton, Architect, Department of Community Health, Division of Health Planning, there will be a committee that will work on more standards for the 2014 edition of Georgia’s SHP.

The Georgia Department of Community Affairs publishes Georgia’s Standard codes and amendments which can be found at <http://www.dca.ga.gov/development/constructioncodes/programs/codes2.asp>

Washington

According to Washington’s Facility Certification Program Manager, Janis Sigman, the state’s rules regarding energy efficiency are very sparse, and the agency does not go into much depth in reviewing the reasonableness of an applicant’s proposed methods of construction and energy conservation.

However, she said “...we currently have an application in house that is proposing its construction meet the LEED Silver Certification and Green Guide to Health Care. This is the first application that’s been submitted proposing to meet these standards. We are in the very early stages of the review and the application is competing with two other hospitals. I’ve included a couple of links that might be of help. If you have any other questions, please let me know.”

<http://www.gghc.org/>

<http://www.nrdc.org/buildinggreen/leed.asp>

Lessons from Wisconsin

According to C. David Lund, Chief, Resource Allocation Program, Wisconsin does not have an energy policy or CON standard by which to regulate health care facilities construction. Further, the state only regulates nursing homes and ICF/MR healthcare facilities.

However, Jennifer Bumgarner, Policy Advisor, Office of the Governor (North Carolina), provided us with a Wisconsin contact, Jeff Rich, Executive Director-Major Projects & Efficiency Improvement, Gundersen Lutheran Medical Center, LaCrosse, WI, who serves with her on the National Governors Association’s Center for Best Practices Policy Academy on State Building Efficiency Retrofit Programs, a nine month project intended to create and implement exemplary policies and programs for building efficiency retrofits.

Mr. Rich provided us with a draft copy of “*Wisconsin Health System’s Energy Retrofit Program Proposal*” which addresses common barriers to implementing energy efficiency projects in the state, although “*the number, size and energy intensity of the state’s healthcare facilities provides a unique opportunity to significantly reduce fossil fuel emissions and improve focus on energy consumption.*” (see handout)

Further, he provided a presentation Gundersen Lutheran’s Vision for Energy and Environmental Stewardship. (see handout). Also, he shared with us the following:

“At Gundersen Lutheran, we have been working hard on new facility design practices to assist us with minimizing our energy consumption as we build new space. Each of our new facilities will be LEED certified. Although LEED certification is a standard that we believe adds great value, it is not enough to guarantee that a building’s energy performance will be good. So, in addition to LEED certification we have also set energy intensity goals for our new facilities & existing facilities. Energy Intensity is the measure of energy consumed per square foot of space. This is the standard tool by which experts measure the energy efficiency of a facility and there are

benchmarks available. There are multiple factors that affect Energy Intensity (climate, building use, etc.) so an appropriate benchmarking tool can assist you with understanding what your facility should consume. For instance, we are in a northern climate and consume more energy in the form of heat than in cooling / lighting....I'd expect North Carolina to be somewhat different in its profile. Also, a tertiary medical center will be more energy intensive than an outpatient clinic or office building due to its hours of use and equipment needed. We've used a couple of benchmarking tools that have correlated quite well...the Grumman Butkus Inc. survey of upper midwestern hospitals and the Energy Star "Target Finder" on the Energy Star website. Our current hospital consumes 250,000 Btu / Sq. Ft. (50th %tile) and a new addition that we are planning will be designed to consume less than 115,000 Btu / Sq. Ft.

Having this baseline understanding of where you are at and what you want to achieve is key to driving the right decisions on energy choices. We have also quantified the annual energy expense savings associated with the new design vs. our former standard...on 400,000 square feet we estimate \$750,000 of annual energy savings vs. the old.

The details involving design are many and complicated but an excellent reference is the 'Advanced Energy Design Guide for Small Hospitals and Healthcare Facilities' by the American Society for Heating, Refrigeration, and Air-Conditioning Engineers..."

