Tax Aspects of Connecticut's Push for MUSH Energy Program

By Charles R. Goulding, Spencer Marr and Raymond Kumar

Charles Goulding, Spencer Marr and Raymond Kumar describe Connecticut's 2012 Conservation and Load Management Plan, which seeks to drive down energy costs in the state's government building sector.

The State of Connecticut is aggressively moving forward to drive down energy costs in the state's government building sector as part of the state's building categories initiative for municipal buildings, universities, schools and hospitals (MUSH). In late 2011, Connecticut's electric distribution companies came together to file the 2012 Conservation and Load Management Plan (2012 Plan) with the state's Department of Energy and Environmental Protection. The proliferation of this 2012 Plan, along with several other laws, technological advancements and macroeconomic developments are going to make it highly advantageous for government building in the MUSH categories to retrofit their buildings with energy-efficient lighting, HVAC and building envelope equipment.

This analysis:

- describes the tax benefits related to achieving energy-efficient government buildings design;
- describes the comprehensive approach taken by Connecticut; and
- defines the MUSH building categories and describes the tax incentives specifically available to them.

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Code Sec. 179D Tax Opportunities

Pursuant to Code Sec. 179D, as enacted by the Energy Policy Act of 2005 (EPAct),[1] designers of energy-efficient MUSH projects making qualifying energy-reducing investments at new or existing government properties can obtain immediate tax deductions of up to $1.80 per square foot. This federal tax incentive is available for catching the largest economic driver of a project, namely decreased energy costs, through their energy-efficient design techniques, which inures to the benefit of the Connecticut state government.

If a building project doesn't qualify for the maximum Code Sec. 179D $1.80-per-square-foot immediate tax deduction, there are tax deductions of up to $0.60 per square foot for each of the three major building subsystems: lighting, heating, ventilating and air conditioning (HVAC) and the building envelope. The building envelope is every item on the building's exterior perimeter that touches the outside world including roof, walls, insulation, doors, windows and foundation.

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Connecticut's MUSH Push for Increased Energy Efficiency

The Energy Efficiency Board of Connecticut, working in conjunction with the State Department of Energy & Environmental Protection (DEEP), the Public Utilities Regulatory Authority, and many utilities in the state, promulgated their 2012 Plan with the explicit goal of cutting costs and reducing energy use in the state. The programs created by the 2012 Plan will provide utility bill savings for customers and provide economic, environmental and jobs benefits to meet Connecticut's policy objectives. The electric and natural gas programs are aimed at capturing opportunities for reducing energy bills and providing other benefits through a wide range of strategies.[2] For instance, the 2012 Plan utilizes an "Increased Savings Scenario" that will help the state reach significantly higher energy savings and benefits. By some estimates, the Scenario will provide annual electric savings equivalent to 2.1 percent of retail sales, natural gas savings equivalent to 0.7 percent of retail sales, additional fuel oil and other fuel savings, plus over $800 million in benefits.

A touchstone of the 2012 Plan that will bear directly on energy efficiency is the $253 million in ratepayer funding that will support and leverage about $500 million of customer energy-efficiency projects in 2012 alone. Another goal outlined in the plan is for all state facilities to pay for and install benchmarking software that provides a dashboard for monitoring energy usage. The effect of benchmarking in jurisdictions that have previously passed similar requirements has been to simulate increased funding in energy efficiency.[3]

MUSH: Municipal Buildings, Universities, Schools and Hospitals

The MUSH categories of buildings that are eligible for major EPAct tax savings are outlined below.

Municipal Buildings

The typical buildings in this category include the following:

- city/town/village halls
- parking garages[4]
- police stations
- firehouses
- libraries
- transportation/highway/sanitation/maintenance departments along with other local government support structures

State Universities

This building category typically involves large central and regional campuses with a wide range of facilities, including academic, laboratories, libraries, athletic facilities, student unions, health care facilities, maintenance facilities, parking garages and other facilities. Of the buildings owned and operated by state governments, the largest percentage (by type) are state university and community college facilities, which, thus, provide the biggest *opportunity* for EPAct deductions for state governments.

Schools

Government-run K-12 Schools include high schools, middle schools, elementary schools and vocational schools. Taking into account *all* government-run facilities, whether federal, state or local, K-12 schools comprise the largest percentage of government buildings *eligible* for EPAct deductions, since virtually every community in the United States has at least one K-12 school, most being run by local governments.

Hospitals

Buildings in this category include state, county and city-owned facilities.[5] Because these facilities often require a large amount of energy to operate on a 24-hour basis and power sophisticated medical equipment, hospitals present a great opportunity for Connecticut's state and local governments to simultaneously realize large tax and energy-cost savings.[6]

Energy Savings Measures for MUSH Buildings

One of the easiest ways for the MUSH buildings to achieve energy savings is to upgrade to energy-efficient lighting (which is increasingly LED) particularly in certain building categories. For example, many of the municipal building categories are characterized by small spaces, including offices where LED lighting is advantageous. Long-life LEDs should also be considered in any difficult-to-reach space where ongoing replacement is expensive. It's important to replace all federally banned probe-start metal

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secretive research that it is conducting into the interconnectivity of all household appliances.[9] The moniker, "Internet of Things," conveys an emerging trend wherein consumers will no longer have to access the internet *via* their computer or handheld device to do things like order more groceries, because their smart refrigerator will sense when they are running low on various items and will automatically order more of what's needed. This trend is made possible because of smart sensor technology.

Conclusion: Research and Development Opportunities Within the Smart Sensor Market

The challenges of creating new and improved smart sensors over the coming years present great opportunities for companies in the related industries. The common challenges when it comes to sensing data input, regardless of the industry, all boil down to improved accuracy, speed and responsiveness of the systems to rapidly changing stimuli.

ENDNOTES

1 Available online at *www.mckinsey.com/Insights/MGI/Research/Technology_and_Innovation/Big_data_The_next_frontier_for_innovation.*

2 Charles R. Goulding, Jacob Goldman and Taylor Goulding, *New Tax Incentives for Electricity Smart Meter and Smart Grid Investments,* CORP. BUS. TAX'N MONTHLY, Apr. 2009, at 29.

3 Code Sec. 41.

4 Available online at *www.academicleadership.org/article/an-overview-of-smart-sensor-technology.*

5 J. Sorribas, J. del Rio, Manuel A. Trullols, *A Smart Sensor Architecture for Marine Sensor Networks,* NETWORKING AND SERVICES, 2006, at 93.

6 Available online at *www.academicleadership.org/article/an-overview-of-smart-sensor-technology.*

7 *Supra* note 2, at 30.

8 John R. Vaughn, Chairperson, Over *the Horizon: Potential Impact of Emerging Trends in Information and Communication Technology on Disability Policy and Practice,* NAT'L COUNCIL ON DISABILITY, Washington DC, at 1–55 (Dec. 19, 2006). Available online at *www.ncd.gov/publications/2006/Dec262006.*

9 Charles R. Goulding, Spencer Marr and Charles G. Goulding, *Rapid Robot Technology Advancements Supported by R&D Tax Credits,* CORP. BUS. TAX'N MONTHLY, Jun. 2012, at 9.

Push for MUSH Energy Program

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halide lighting typically found in parking garages, maintenance buildings, vehicle garages, gyms[7] and athletic facilities. In sum, new low wattage LEDs fit perfectly into Connecticut's plans for the state's energy reduction.

One of the largest costs for human-occupied government buildings is HVAC. Many government buildings were originally constructed on first-cost bid basis, meaning the lower bidders who used lower-cost, less energy-efficient equipment got the job. As a result, new, more rigorous building energy codes, technology improvements and more energy-efficient HVAC are now available and often mandated. Many of these new HVAC technologies will qualify for EPAct deductions.[8]

Conclusion

The following quote is taken directly from the language of the 2012 Plan: "A stated goal of the Malloy administration is to make Connecticut the leading state in energy efficiency. To achieve this ambitious outcome, the current program offerings will need to be expanded significantly. In addition, private capital will need to be leveraged to deliver savings of the scale required to put Connecticut in the lead. This chapter builds upon the base plan detailed in previous chapters with a framework of modifications needed to begin the process of accelerating savings to achieve the stated policy objectives." Fortunately, Connecticut's objectives align neatly with the federal government's EPAct government building designer tax incentives.

ENDNOTES

1 Energy Policy Act of 2005 (P.L. 109-58).

2 Available online at *www.ctenergyinfo.com/111019%202012Plan%20EEB%20Letter%20of%20Support%20F.pdf.*

3 Charles Goulding and Daniel Penza, *New York City Hotels Energy Benchmarking Related Legal and Tax Compliance,* Jun. 18, 2011, available online at *http://energytaxsavers.wordpress.com/article/new-york-city-hotels-energy-1xedf26uc9hpj-33/.*

4 Charles Goulding, Jacob Goldman and D. Malcolm Thomas, *Multiple Lighting Technologies Driver Large EPAct Tax Deductions for Parking Garages,* INT'L PARKING INST., Aug. 2010.

5 Charles Goulding, Jacob Goldman and Malcolm Thomas, *For-Profit and Government Hospitals Can Earn Tax Deductions for New Construction and Renovation,* BUILDING OPERATING MGMT., Mar. 2010.

6 Charles Goulding, Robert Goulding, and Raymond Kumar, *The Energy Tax Aspects of Hospitals,* CORP. BUS. TAX'N MONTHLY, Nov. 2009, at 15.

7 Charles Goulding and Andrea Albanese, *EPAct Tax Incentives for Energy Efficient Fitness Center,* Jun. 30, 2011, available online at *http://energytaxsavers.wordpress.com/article/epact-tax-incentives-for-energy-1xedf26uc9hpj-40/.*

8 Charles Goulding, Jacob Goldman and Kenneth Wood, *Tax Deductions for HVAC Efficiency,* BUILDING OPERATING MGMT., Apr. 2010.

Sales and Use Tax Nexus

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on instate businesses. Even the burden of monitoring these types of legislative changes can be overwhelming to most businesses.