Tax Aspects of New York City's Building Energy Benchmarking Project

By Charles R. Goulding, Andrea Albanese and Charles G. Goulding

Charles R. Goulding, Andrea Albanese and Charles G. Goulding discuss the 2010 NYC Benchmarking Report, which concluded that targeting the office building sector for energy reduction makes the most sense "because so much energy is used in relatively few buildings."

In the largest building energy bench marking measuring process ever to occur, New York City commercial property owners are learning how their building stacks up against comparable buildings on a standard one to 100 percentile basis. Those scoring less than 75 will normally seek to improve their grade by upgrading to more energy-efficient equipment. Landlords with less than 75-percent grades will be at a competitive disadvantage compared to higher performing buildings. After all, one cannot charge a fair-market rent for a below-market performing building. Large EPAct tax savings are available to the large buildings, subject to the mandatory energy benchmarking.

Code Sec. 179D EPAct Opportunities

Pursuant to Code Sec. 179D, as enacted by the Energy Policy Act of 2005 (EPAct),[1] commercial property owners or primary designers in government projects making qualifying energy-reducing investments in their new or existing locations can obtain immediate tax deductions of up to $1.80 per square foot.

If the building project does not qualify for the maximum $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.

The Tax Opportunity

The resounding success of the Code Sec. 179D government building designer incentive[2] is an encouraging and supporting extension of the current law, along with interest in a proposed "deep retrofit government building designer tax provision." On September 21, 2012, Senators Snowe, Cardin, Bingham and Feinstein introduced a new law. With this proposal, the tax benefits under current law along with Code Sec. 179D will increase from $1.80 to $3.00 per square

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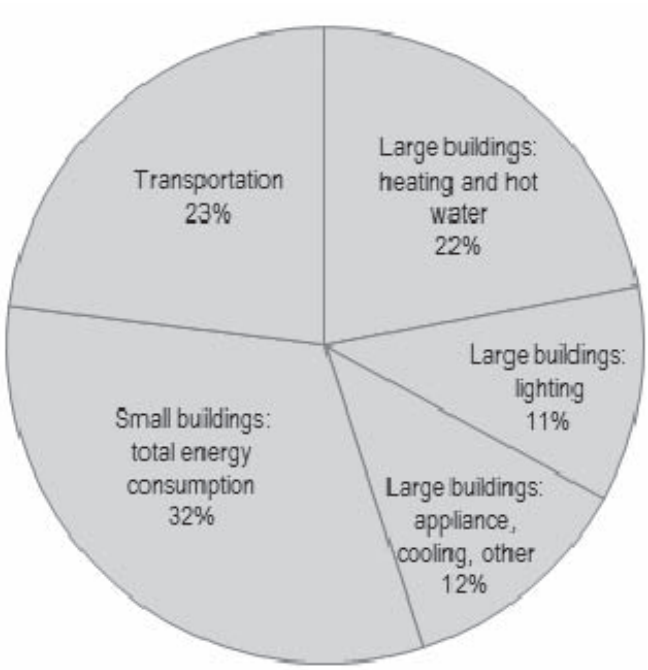
Exhibit 1.



Source: NYC Mayor's Office

foot. This is coupled with a new Code Sec. 179F, providing deep retrofit tax incentives of $4.00 per square foot.

Big Data Analysis

Big data refers to the concept of large amounts of information being used to analyze trends and create future strategies. The massive amounts of new comparable data from energy benchmarking jurisdictions are enabling some very innovative ways to analyze and present the building energy benchmarking results. An organization called Honest Buildings[3] has amassed a large collection of building-related data including energy-consumption-related data. In fact the federal government has designated big data related to energy usage as one of the top big data opportunities.[4]

Large buildings account for 45 percent of New York City's (NYC) total energy use, which is presented in Exhibit 1.

Presented in Exhibit 2 are the potential EPAct benefits for the total 2.6 billion square feet of NYC buildings subject to benchmarking law.

Exhibit 2.

Total EPAct Potential Benefit From NYC Benchmarking Buildings

Provision	Rate Per Sq. Ft.	Maximum Lighting Tax Deduction	Maximum HVAC Tax Deduction	Maximum Building Envelope Tax Deduction	Total
Current 179D	$1.80	$1,560,000,000	$1,560,000,000	$1,560,000,000	$4,680,000,000
Proposed Extension	$3.00	$2,600,000,000	$2,600,000,000	$2,600,000,000	$7,800,000,000

Provision	Rate Per Sq. Ft.	Maximum Tax Deduction
Proposed 179F	$4.00	$10,400,000,000

Exhibit 3.

Property	Total Square Footage	Lighting		HVAC Maximum Deduction	Building Envelope Maximum Deduction	Total
		Minimum Deduction	Maximum Deduction			
Multifamily	897,219,864	$ 269,165,959	$ 538,331,918	$ 538,331,918	$ 538,331,918	$ 1,614,995,755
Office	340,688,576	$ 102,206,573	$ 204,413,146	$ 204,413,146	$ 204,413,146	$ 613,239,437
Other	177,508,208	$ 53,252,462	$ 106,504,925	$ 106,504,925	$ 106,504,925	$ 319,514,774
Total:	1,415,416,648	$ 424,624,994	$ 849,249,989	$ 849,249,989	$ 849,249,989	$ 2,547,749,966

Median New York Building Has Failed Energy Rating

Even using a low passing rate of 65, the median New York City building has a failed rating of 64. Using the normal 75 rating to achieve Energy Star status, the median NYC building performs 15 percent below the Energy Star level. The New York City Local Law 84 Benchmarking report[5] (*see* Exhibit 2), which summarizes the data, found that if all comparatively inefficient large buildings were brought up to the median EUI in their category, the energy consumption in the city's large buildings could be reduced by roughly 18 percent and greenhouse gas emissions could be reduced by 20 percent. Large buildings are responsible for 45 percent of New York City's carbon emissions, the report said. Larger office buildings were found to use more energy per square foot than larger ones.[6]

The first 1.415 billion square feet of NYC buildings have been benchmarked and include the building sectors and retain EPAct tax deductions under current law as shown in Exhibit 3.

Improving Benchmarking Results

The most common building upgrades that will markedly improve benchmarking results are energy-efficient lighting and energy-efficient HVAC.

Lighting

Energy-efficient lighting is normally considered the investment that will yield the best economic payback meaning that the investment will pay for itself in the shortest time period.

Many New York City buildings particularly offices, retail, hotels, restaurants and apartments are installing long-life, low-wattage, energy-efficient LED lighting to reduce operating costs and improve benchmarking results.[7]

HVAC

With air conditioned buildings, the largest building energy-cost-related equipment is air conditioning. Installing energy-efficient air conditioning will typically result in the largest benchmarking percentage rating improvement.

Conclusion

The 2010 NYC Benchmarking Report concludes that targeting the office building sector for energy reduction makes the most sense "because so much energy is used in relatively few buildings." These office buildings can use large EPAct tax incentives to improve their existing building energy benchmarking results.

Endnotes

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

2 Charles R. Goulding, Charles G. Goulding and Jacob Goldman, *Strategic Thinking: Seven Years of Code Sec. 179D EPAct,* Corp. Bus. Tax'n Monthly, Sep. 2012, at 13.

3 *See http://gigaom.com/cleantech/honest-buildings-raises-first-venture-round-for-green-building-data/.*

4 The Washington Post, *Commission recommends federal government take action on 'big data'*. Oct 3, 2012, *available online at www.washingtonpost.com/business/capitalbusiness/commission-recommends-federal-government-take-action-on-big-data/2012/10/02/846c2714-08ec-11e2-afff-d6c7f20a83bf_story.html.*

5 PlaNYC: New York City Local Law 84 Benchmarking Report, Aug. 2012, *available online at www.nyc.gov/html/gbee/downloads/pdf/nyc_ll84_benchmarking_report_2012.pdf.*

6 Environmental Leader LLC, *New York is First City to Publish Energy Data for Private Buildings,* Sep. 12, 2012, *available online at http://www.environmentalleader.com/2012/09/12/new-york-is-first-city-to-publish-energy-data-for-private-buildings/.*

7 Charles R. Goulding, Raymond Kumar and Jennifer Pariante, *LED Lighting Can Play a Key Role in Securing EPAct Tax Benefits.* Imark Now, Feb. 2012.