

The Energy Tax Aspects of California's 3 "T" Economic Recovery

By Charles Goulding and Spencer Marr

Charles Goulding and Spencer Marr discuss opportunities for California building owners with facilities devoted to trade, technology and tourism to save on energy expenses and benefit from state and federal tax incentives.

Introduction

The California economy has been rebounding surprisingly well with strong growth in the three leading California "T" business sectors, namely trade, tech and tourism. The building facilities in these three categories have some facility-specific, large energy cost and energy tax savings opportunities. California property owners are particularly well situated for larger Energy Policy Act (EPAAct)¹ tax deductions because of the state's longstanding commitment to more rigorous building energy codes and expanding, mandatory building energy benchmarking requirements. This article is intended to help tax advisers with California facilities clientele identify both the related building categories and the applicable energy tax opportunities.

Code Sec. 179D Tax Opportunities

Pursuant to Code Sec. 179D, as enacted by EPAAct, commercial property owners in California making qualifying energy-reducing investments in their new

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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, HVAC (heating, ventilating, and air conditioning) 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.

Alternative Energy Tax Credits and Grants

Owners of California property that falls within one of the three "T" building categories may benefit from 30-percent and 10-percent tax credits for a variety of alternative energy measures with varying credit termination dates. For example, the 30-percent solar tax and fuel tax credits expire January 1, 2017. The 10-percent combined power tax credit also expires January 1, 2017. The 30-percent closed-loop and open-loop biomass credit expires January 1, 2014.

All alternative measures that are eligible for the 30-percent and 10-percent tax credits are also eligible for equivalent cash grants for the three years starting January 1, 2009, and ending December 31, 2011.

Unique 2011 Opportunity: Enhanced Bonus Tax Depreciation

The credits described above are ordinarily eligible for a five-year modified accelerated cost recovery system MACRS depreciation, but building owners who install these renewable energy systems after September 8, 2010, and before December 31, 2011, can take a 100-percent depreciation tax bonus immediately. Even if building owners missed this 2011 window, they can enjoy a 50-percent tax depreciation bonus on alternative energy equipment placed in service from January 1, 2011, to December 31, 2012.

California's Building Energy Code

The 2008 Building Energy Efficiency Standards² is mandatory statewide. Effective January 1, 2010, the California Code of Regulations is more stringent than the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) 90.1 2007, thereby making California properties ideally situated to achieve EAct tax deductions. By making their buildings incrementally more efficient than what is minimally required by the state building code, owners of properties used for one of the three T's should be poised for large tax incentives.

CALGreen, as the code has come to be known, sets a threshold of a 20-percent reduction in indoor water and energy use and includes voluntary goals for reductions of 30 percent, 35 percent and 40 percent. Additionally, it mandates inspections of energy systems—such as heating, air conditioning and mechanical equipment—for commercial buildings that are larger than 10,000 square feet to “ensure that all are working at their maximum capacity according to design efficiencies.” Thus, California's policy aims and guidelines mirror the federal requirements mandated by Code Sec. 179D, while simultaneously integrating a LEED-style approach towards building design. LEED certification is the widely renowned marquee standard for recognizing sustainable buildings and has become an essential criteria for claiming Class A building status.³ LEED buildings have a distinct tax advantage because, due to their already documented energy reduction achievements, many LEED buildings will qualify for a \$1.80 EAct tax deduction with the right building designs.

Benchmarking Laws

In previous articles, the authors have analyzed the impact of mandatory energy benchmarking and disclosure on the commercial real estate market in

New York City.⁴ San Francisco's Board of Supervisors, responsible for overseeing the energy performance of commercial buildings within the city, recently unveiled a benchmarking plan on par with New York City's. The newly adopted “Existing Commercial Building Energy Performance Ordinance” requires commercial property owners to measure and rate, or “benchmark,” the energy performance of their buildings and make energy ratings available to the public.⁵ The ordinance also requires owners to conduct energy audits every five years.

San Francisco is not the only major California city that requires benchmarking audits. The entire state has adopted a mandatory benchmarking policy for commercial properties. Benchmarking is an effective first step towards creating an energy-efficient commercial property sector, because it requires property owners to maintain a highly efficient building in order to attract potential tenants or purchasers. It also allows building owners to identify cost-effective energy-efficient solutions as compared to similar properties, which can be monitored and adjusted in real time. Against the backdrop of required energy benchmarking, building owners should invest in the necessary energy-efficient upgrades to achieve energy reduction targets eligible for Code Sec. 179D tax incentives.

Opportunities for the 3 “Ts”

California's Trade Sector

California's trade warehouse facilities and distribution sector combine for millions of property square footage that can drive huge EAct tax deductions. For instance, the Inland Empire in Southern California consists of over 324 million square feet of industrial and warehousing space, distributing merchandise from the Los Angeles and Long Beach seaports to the rest of the country. The managers of the Inland Empire have recently embarked on a mission to reduce their energy consumption in recognition of the heavy strain the distribution corridor and that region places on local energy infrastructure. The following chart illustrates the EAct tax savings potential of the Inland Empire project:

From an energy management standpoint, warehouses are generally categorized as “unconditioned,” meaning no HVAC, or “conditioned,” meaning the facility has HVAC. Conditioned warehouses may have cooling capability, indicating refrigeration or freezer equipment. From a building energy perspective, the distinction between unconditioned and conditioned is crucial, as conditioned buildings are required by building code to

Location	Total Square Footage	Lighting Maximum Deduction	HVAC Maximum Deduction	Building Envelope Maximum Deduction	Total
Inland Empire Warehouses	324,000,000	\$194,400,000	\$194,400,000	\$194,400,000	\$583,200,000

have more energy-efficient building envelopes (including roofs) and higher levels of insulation.⁶

With unconditioned warehouses, building lighting comprises the primary building energy use. Most warehouses that have not upgraded to energy-efficient lighting in the last seven or eight years use prior-generation metal halide or T-12 fluorescent lighting. It is important to realize that effective January 1, 2009, most probe-start metal halide lighting can no longer be manufactured or imported into the United States; effective July 1, 2010, most T-12 lighting may no longer be manufactured or imported into the United States. This means warehouses that still have this lighting technology will soon be subject to large price increases for replacement lamps and bulbs.⁷

With conditioned warehouses, energy management includes the lighting cost-reduction opportunities described above, plus the ability to obtain substantial energy cost reduction through building envelope and HVAC improvements. Energy managers who are building new construction or retrofitting existing conditioned warehouses should strongly consider engaging tax and engineering firms with computer energy simulation modeling capability. With an IRS-approved model, the engineering firm can help the warehouse owner optimize the utilization of energy-efficient equipment to reduce energy operating costs and maximize EAct tax deductions and utility rebates, particularly in local jurisdictions that provide utility rebates for highly energy-efficient HVAC, roofs, insulation, refrigeration and freezer equipment.

California's Technology Sector

As a result of their multiple buildings, large square footages and central energy systems, many technology companies—ranging from Internet and computer hardware firms to biotech manufacturers and consumer electronics—have facilities that are eligible for special tax savings opportunities. Virtually every “tech campus” should be able to use the existing attributes of their central plant systems, whether upgrading office space, research and development facilities or manufacturing facilities, to easily capture large energy-related tax savings.

Typical technology campuses are located in densely populated, expensive energy-cost areas since the engi-

neers, scientists and laboratory technicians are highly skilled workers who need to be in areas with strong university and other research resources. To begin the energy tax planning process, tax departments should first obtain a list of campus facilities organized by square footage and building type. Smaller buildings supported by the central plant at less than 150,000 square feet and less than 75,000 square feet more easily qualify for EAct tax deductions.⁸ The buildings at many California tech campuses are primarily used as laboratories and offices, since product manufacturing is often subcontracted out to contract manufacturers and other low-cost jurisdiction facilities.

Northern California's “Silicon Valley” has produced several notable biotech, computer and consumer technology firms, many of which have large research and/or office facilities in the region. Environmental and energy watchdogs like the Sierra Club and Greenpeace shine a particularly strong spotlight on these firms. Recently, Greenpeace attacked Apple for its lack of energy-efficiency measures at one of its data processing centers, labeling it a “dirty data” center. In the same report, Greenpeace noted that some tech companies, like Google, Yahoo and Amazon, have effectively mitigated their contributions to global warming by utilizing energy-efficient design techniques and cleaner burning alternative energy sources at their facilities.

Greenpeace has spoken out on the need to disclose each company's energy consumption, especially with their “cloud computing” centers, a topic the authors have previously addressed.⁹ Greenpeace argues that increased energy transparency will facilitate a race toward efficiency in the face of burgeoning consumer concerns about their energy consumption and cites estimates that data center energy demand already accounts for 1.5 to two percent of world electricity consumption, set to quadruple over the next 10 years, as reason for all tech companies to act now. Not only can these companies take advantage of EAct tax deductions, but they can use alternative tax credits to support large investments in alternative energy.

For example, Mountain View, California-based Google has made \$400 million in solar and wind investments along with geothermal and fuel cell installations in recognition of the fact that its data processing centers use huge amounts of power. Google is putting

Facebook EAct Tax Incentive Opportunity

Location	Total Square Footage	Lighting		HVAC Maximum Deduction	Building Envelope Maximum Deduction	Total
		Minimum Deduction	Maximum Deduction			
Facebook Menlo Park	1,000,000	\$300,000	\$600,000	\$600,000	\$600,000	\$1,800,000

\$55 million towards financing a wind farm in California's Tehachapi Mountains, from which they will be able to draw power, while also making ambitious investments to generate electricity across the country, including a \$168 million solar thermal energy project in the Mojave Desert. As far back as 2008, Google invested over \$10 million in cutting-edge enhanced geothermal cooling systems, and it continues to stay at the forefront of the energy market, as the company purchased fuel cells in early 2010.

The newest tech giant in California is Facebook. Below is an example of the EAct tax savings potentially available to Facebook, should the company decide to make its recently purchased facility located in Menlo Park energy efficient at or above EAct levels:

California's Tourist Sector

California is one of the most popular tourist destinations in the United States. Hotels get special privileged treatment under the EAct tax provisions.¹⁰ The underlying rule set to qualify for the Code Sec. 179D lighting tax deduction makes hotels and motels the most favored property category for the tax incentives for lighting.¹¹ The rule set requires at least a 25-percent watts-per-square-foot reduction as compared to the ASHRAE 2001 building energy code standard. Full tax deduction is achieved with a 40-percent watts-per-square-foot reduction compared to the ASHRAE 2001 standard. The ASHRAE 2004 hotel/motel building code standard requires 41-percent wattage reduction, which means that any hotel or motel lighting installation that meets that building code requirement will qualify for the maximum EAct lighting tax deduction.

Conclusion

California's rapid economic rebound is timed perfectly with the federal and state energy tax provisions and energy product developments, particularly for LED lighting and Solar P.V. Tax advisers with clients that own property in the 3 "T" property categories need to meet with their clients sooner rather than later to catch this California wave.

ENDNOTES

- ¹ Energy Policy Act of 2005 (P.L. 109-58).
- ² Cal. Code Regs. tit. 24, parts 1 and 6.
- ³ Charles Goulding, Taylor Goulding and Amelia Aboff, *How LEED 2009 Expands EAct Tax Savings Opportunities*, CORP. BUS. TAX'N MONTHLY, Sept. 2009, at 11.
- ⁴ Charles Goulding, Jacob Goldman and Joseph Most, *Using EAct Incentives to Enhance New Mandatory Building Energy Disclosure Requirement*, CORP. BUS. TAX'N MONTHLY, Oct. 2010, at 11-12.
- ⁵ Sustainablebusiness.com, *San Francisco Mandates Benchmarking for Commercial Buildings*, February 10, 2011, available online at www.sustainablebusiness.com/index.cfm/go/news.display/id/21860.
- ⁶ Charles Goulding, Jacob Goldman and Malcolm Thomas, *The Energy Tax Aspects of Warehouses and Distribution Centers*, CORP. BUS. TAX'N MONTHLY, Oct. 2009, at 16.
- ⁷ *Id.*
- ⁸ Charles Goulding, Amelia Aboff and Taylor Goulding, *Special Tax Savings Opportunities for Pharmaceutical and Biotech Campuses*, CORP. BUS. TAX'N MONTHLY, Oct. 2009, at 14.
- ⁹ Charles Goulding, Jacob Goldman and Cassandra Gengler, *The Tax Aspects of Cloud Computing and Data Centers*, CORP. BUS. TAX'N MONTHLY, (Dec. 2010).
- ¹⁰ Charles Goulding, Jacob Goldman and Raymond Kumar, *Advanced EAct Tax Planning for Hotel Chains*, CORP. BUS. TAX'N MONTHLY, June 2010, at 14.
- ¹¹ Charles Goulding, Jacob Goldman, and Taylor Goulding, *Hotels and Motels Most Favored Energy Policy Act Tax Properties*, CORPORATE BUSINESS TAXATION MONTHLY, March 2009, at 17.

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