

Energy Audits – New Legal Requirements and Consensus Standard

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In February 2011, ASTM International released a new standard for the collection of data used in energy audits in buildings involved in real estate transactions. Also this year, several states and municipalities are requiring disclosure and/or reporting of buildings' energy audit data. These new legal requirements and consensus standards demonstrate that energy audits are fast becoming common and expected practice for building managers and those intending to buy, sell or lease real estate. Therefore, it is important to review the scope and accuracy of energy audit disclosures and be prepared for conducting and analyzing energy audits in the near future.

Background on Energy Audits

An energy audit studies a facility's energy use, performance and cost. In the real estate industry there currently is no required scope for energy audits, although government and industry energy audit programs are commonly used. For example, the U.S. Environmental Protection Agency ("EPA")/Department of Energy ("DOE") Energy Star

program's Portfolio Manager provides an accepted approach for compiling energy audit data and benchmarking a building's energy performance against similar buildings nationwide. Portfolio Manager is an online tool that allows owners and operators of buildings (and those who may be acquiring them) to: (a) track energy use in a single building or a portfolio of buildings; (b) compare a building's energy performance to others nationally; (c) estimate the building's "carbon footprint," *i.e.*, greenhouse gas ("GHG") emissions from on-site fuel combustion and purchased energy; (d) track energy conservation improvement projects; and (e) apply for national Energy Star recognition by EPA. The benchmarking data allow buildings and certain industrial plants to obtain Energy Star recognition if their energy efficiency is in the upper quartile nationally. Another energy audit tool provided by the federal government is EPA's "Lean and Energy Toolkit," which provides techniques and strategies for energy efficiency and reducing energy costs as part of the Lean methodology for identifying waste in production processes. EPA

provides examples in its "toolkit" of actions consistent with the Lean approach, including conducting energy audits, using Six Sigma to identify and eliminate energy waste, and applying a kaizen event to implement energy use improvements.

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers ("ASHRAE") provides a choice of standards for the depth, detail, and scope of an energy audit. ASHRAE Level 1 requires only a walk-through and preliminary energy analysis, meant to detect the "low-hanging fruit" of energy efficiency initiatives that are available for the building. ASHRAE Levels 2 and 3 provide increasing sophisticated, detailed, and comprehensive analyses of energy use, efficiency engineering, and return on investment. An ASHRAE Level 1 energy audit is a prerequisite for the U.S. Green Building Counsel's Leadership in Energy and Environmental Design ("LEED") certification for Existing Building-Operations and Maintenance. Additional LEED points can be obtained for conducting the ASHRAE Level 2 audit.

The New ASTM Energy Audit Standard

To counteract criticism that energy audit data have been collected in an inconsistent and non-comparable manner and could be unreliable in a transactional context, on February 10, 2011, ASTM issued its Standard Practice for Building Energy Performance Assessment ("BEPA") for a Building Involved in a Real Estate Transaction (ASTM E2797). The new BEPA standard establishes a consistent practice for identifying a building's energy performance. As stated by ASTM, the BEPA standard provides a "methodology ... for the collection, compilation, analysis, and reporting of building energy performance information" and can "enhance the integrity of the benchmarking process for all transactional stakeholders in a standardized, uniform and consistent manner." Like many other ASTM standards, the BEPA standard is expected to become commonly used in real estate transactions and, therefore, for building design and operations.

ASTM's standard requires certain components for every energy audit:

- Building visit
- Collection of documents
- Analysis of documents and data from site visits
- Interviews of knowledgeable personnel
- Report preparation, including reporting energy use and cost data and ranges

The BEPA standard provides a consistent approach for determining key variables in an energy audit, such as: (a) building energy metrics to be used; (b) time frame and calculation of time

periods; (c) normalization of data; and (d) identification and use of statistically sound weather data. An appendix demonstrates the calculations that can be generated through a BEPA-standard energy audit.

The BEPA standard took more than two years to develop. ASTM's Task Group relied on the input of building owners and managers, architects, engineers, manufacturers, finance experts, government representatives and others in the real estate and energy field. The standard does not limit the programs for which the energy audit data can be used. Thus, the BEPA-generated data can be used for a variety of audit approaches, including Energy Star, ASHRAE and LEED programs.

Legally Required Energy Audits

In some state, municipal, and non-U.S. jurisdictions, energy audits are required. The states of California and Washington, and New York City, Washington, D.C., San Francisco, Seattle, and Austin have all enacted laws requiring energy audits and/or disclosure of energy audit information. For example, California state law requires owners and operators of non-residential buildings to release the past 12 months of benchmark data and ratings generated by the Energy Star program's Portfolio Manager software to prospective buyers, lessees and lenders prior to the closing of a transaction involving the entire building.[2] The California Energy Commission is drafting regulations implementing the law, which are expected to go into effect in the second quarter of 2011.[3]

The state of Washington has a similar law, which requires owners

of non-residential buildings to rate their buildings using Portfolio Manager "or an equivalent tool" adopted by the state and disclose that information prior to the closing of a transaction.[4] In Washington, non-residential buildings greater than 50,000 square feet ("SF") are required to rate and disclose beginning January 1, 2011, and buildings greater than 10,000 SF are required to rate and disclose beginning January 1, 2012.

Some municipal laws require disclosure to the public or a government agency regardless of whether a transaction is about to occur. New York City now requires owners of all buildings that exceed 50,000 gross SF to conduct energy audits every ten years and submit results to the Department of Buildings, with the first audits for some buildings due in 2013.[5] The audits must be conducted using an approach at least as stringent as the ASHRAE Level 2 procedures and must identify all reasonable measures that would reduce energy use and/or the operating cost of the building and provide the costs and savings associated with any such measure. The audit report must also contain the building's benchmark score "consistent with the . . . [Energy Star] Portfolio Manager tool or as otherwise established by the [NYC Department of Buildings]."

In Washington, D.C., the Clean and Affordable Energy Act of 2008 requires reporting of Portfolio Manager benchmarks for commercial buildings to a public website of the District's Department of Environment.[6] Seattle requires owners of non-residential and multi-family buildings to annually measure

and submit energy efficiency benchmarks to the city.[7] Data must be disclosed upon request to existing tenants, but there is no requirement for disclosure in transactions. On February 10, 2011, San Francisco enacted an ordinance that requires building owners and managers to submit Portfolio Manager benchmarking data annually to the city and the results of a commercial energy audit every five years. The city will make the annual benchmarking data and audit results public.[8] In Austin, Texas, owners and managers of commercial buildings are required to rate their buildings using Portfolio Manager or the “Austin Energy Business Energy Analysis rating tool” for buildings that are not covered by Portfolio Manager and submit scores to the community-owned electric utility.[9]

Outside the U.S., energy audits are required by law in many countries. For example, under the European

Union’s Energy Performance of Buildings Directive, an Energy Performance Certificate (“EPC”) is required when a residential building in the EU is built, sold, or leased.[10] To obtain an EPC, the building owner must conduct an energy audit. There is a similar program for large public buildings, which are required to display their EPCs.[11] According to the World Energy Council, Algeria, Bulgaria, India, Czech Republic, New South Wales, Romania, Taiwan, Thailand, and Tunisia also require energy audits.[12]

Conclusion

As energy audits and energy efficiency information become standard in real estate transactions, the potential for liability arising from such disclosures naturally follows. In October 2010, individuals in the building design and construction industry filed

suit in New York federal court against the U.S. Green Building Council (“USGBC”), alleging that the USGBC had fraudulently misrepresented energy efficiency performance in its LEED certification system.[13] The case highlights the issues surrounding data uncertainty and the need for accepted standardization of information that is increasingly important to the business community, government agencies, and the public.

The prevalence of legal requirements for the collection and disclosure of energy audit data is expected to grow. The ASTM BEPA standard should go a long way towards resolving the issues of consistency, verifiability, and reporting of energy audit data. It will be important, however, for building owners and operators, and their counsel, to be aware of these new laws and best practice in the real estate industry.

Endnotes

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- [2] Cal. Pub. Res. Code § 25402.10 (West 2011).
- [3] California Energy Commission, AB 1103 Commercial Building Energy Use Disclosure Program, <http://www.energy.ca.gov/ab1103/>.

- [4] Wash. Rev. Code § 19.27A.140-190 (2011).
- [5] New York, N.Y. Local Law No. 87 (2009).
- [6] <http://www.dccouncil.washington.dc.us/images/00001/20080804150618.pdf>
- [7] Seattle Municipal Code 22.920 (2010).
- [8] San Francisco Env. Code §§ 2000-2008 (2011).
- [9] Austin Energy, Energy Conservation Audit and Disclosure (ECAD) Ordinance for Owners of Commercial Buildings, <http://www.austinenergy.com/about%20us/environmental%20initiatives/ordinance/commercial.htm>.

- [10] Directive number 31 of 2010, Official Journal of 18 June 2010, L 153, pages 16, 23.
- [11] *Id.* at page 24.
- [12] Table 3.2: Main features of mandatory audits in selected countries, *World Energy Council - Main features of mandatory audits in selected countries*.
- [13] *Gifford v. U.S. Green Building Council*, No. 10-cv-7747 LBS (U.S. Dist. Ct. S.D.N.Y.).

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