


5-15-2012

Energy Ratings Hit Commercial Real Estate - California Lights the Way

Jonathan Cahill

Follow this and additional works at: <http://digitalcommons.pepperdine.edu/jbel>

 Part of the [Energy Law Commons](#), [Environmental Law Commons](#), [Foreign Law Commons](#), and the [Legislation Commons](#)

Recommended Citation

Jonathan Cahill, *Energy Ratings Hit Commercial Real Estate - California Lights the Way*, 5 J. Bus. Entrepreneurship & L. Iss. 2 (2012)
Available at: <http://digitalcommons.pepperdine.edu/jbel/vol5/iss2/3>

This Article is brought to you for free and open access by the School of Law at Pepperdine Digital Commons. It has been accepted for inclusion in The Journal of Business, Entrepreneurship & the Law by an authorized administrator of Pepperdine Digital Commons. For more information, please contact Kevin.Miller3@pepperdine.edu.

ENERGY RATINGS HIT COMMERCIAL REAL ESTATE - CALIFORNIA LIGHTS THE WAY

*Jonathan Cahill**

Abstract.....	273
I. Introduction	274
II. California’s AB 1103	275
III. Mandatory Energy Rating and Disclosure—An International Trend.....	278
A. International Response	279
1. Australia	279
2. Denmark.....	280
3. Europe	281
B. Mandatory Energy Rating and Disclosure in the United States.....	282
1. Washington, D.C.	283
2. Austin, TX.....	283
3. Washington State	284
4. Seattle, Washington.....	285
5. New York City, New York	285
IV. Analysis	286
A. Comparison of Existing Energy Disclosure Legislation	286
1. Emerging Trends in Energy Rating and Disclosure Legislation	286
2. Energy Disclosure Legislation as a Market Force.....	288
B. Blueprint for Effective Energy Disclosure Legislation	289
C. Comparison of AB 1103 to the Blueprint.....	292
V. Impact	296
A. The Real Estate Industry’s Response to Energy Disclosure Law.....	296
B. Economic Impact.....	297
VI. Conclusion	299

ABSTRACT

The Energy Star Program has been extremely successful for consumer appliances and electronics, but can this success translate to commercial real estate? In the United States, commercial buildings account for nearly nineteen percent of energy-related carbon dioxide emissions. Consequently, energy rating of buildings has become an increasingly attractive way to combat pollution and lower energy consumption. Despite this, the United States does not yet have a federal policy requiring energy usage disclosure for buildings. This has left state and local governments to lead the way in innovative and effective reporting regimes. California’s response to this regulatory vacuum is Assembly Bill 1103 (AB 1103),

which requires commercial buildings to be rated using the Environmental Protection Agency's Energy Star Program. While AB 1103 has yet to go into effect, its success can be predicted by the advances and setbacks experienced by similar legislation internationally. This article contrasts existing commercial energy rating systems against AB 1103 in an attempt to project its potential successes and pitfalls.

I. INTRODUCTION

Walk into any store and products will boast features and gimmicks aimed at capturing the imagination and dollars of the consumer. Advertising promises the sharpest resolutions, the fastest speeds, and the most powerful processing. Yet one small sticker has found its way onto appliances of all types: the Energy Star label. Not so much a product of marketing finesse as of legislative fiat, this symbol has developed a caché that the cleverest corporate agencies could never hope to match. Energy Star has shown great promise for consumer appliances, but can the elements that worked at the electronics store be carried over to the real estate market?

Internationally, buildings account for nearly forty percent of global energy demand and a comparable share of global greenhouse gas emissions.¹ In the United States, commercial buildings alone account for nearly nineteen percent of energy-related carbon dioxide emissions.² Consequently, energy rating of buildings has become an increasingly attractive way to combat carbon emissions and lower energy consumption. The goal of such ratings is to create a competitive and informed marketplace which values energy efficiency, as well as to encourage building owners to retrofit their buildings to be more efficient.³ Despite this, the United States does not yet have a federal policy requiring energy usage disclosure for buildings.⁴ As such, state and local governments have led the way in innovative and effective reporting regimes.

California's response to this regulatory vacuum is Assembly Bill 1103 (AB 1103),⁵ which requires commercial buildings to be rated using the Environmental Protection Agency's (EPA) Energy Star Program.⁶ This article examines the reach and impact of California's AB 1103 and its place in the global movement for mandatory energy rating and disclosure systems for commercial buildings. Part II

* J.D. Candidate, 2012, Pepperdine University School of Law; Certificate Candidate, 2012, Straus Institute for Dispute Resolution; B.A. in Psychology, 2009, University of California, Santa Barbara. I would like to thank my family for their love and support throughout my education.

¹ Andrew Burr, Cliff Majersik, David Goldstein & Nick Zigelbaum, *The Future of Building Energy Rating and Disclosure Mandates: What Europe Can Learn from the United States*, INSTITUTE for MARKET TRANSFORMATION, available at <http://www.imt.org/files/FileUpload/files/Benchmark/IEECBPaper33.pdf> (last visited Apr. 6, 2012).

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ 2007 Cal. Legis. Serv. 533 (West) (also referred to as AB 1103). The provisions of AB 1103 were codified in CAL. PUB. RES. CODE § 25402.10 (West 2011).

⁶ *Id.*

examines AB 1103 itself, and the requirements it sets forth. Part III examines similar legislation from around the world and within the United States. Part IV discusses the emerging trends in energy disclosure law, and compares AB 1103 with aspects of policies that have proven effective. Part V discusses the reaction of the real estate industry to AB 1103, along with its possible market impact. Part VI concludes this article.

II. CALIFORNIA'S AB 1103

In California, commercial buildings account for a staggering thirty-six percent of electricity used in the state.⁷ Not surprisingly, California has led the charge in improving energy efficiency of commercial buildings throughout the United States. In an executive order, Governor Arnold Schwarzenegger called for reductions in energy use in government buildings, pursued government leases of Energy Star rated buildings, and directed the California Energy Commission to propose an energy-benchmarking scheme for government and private commercial buildings by July 2005.⁸ In 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act into law.⁹ The Act calls for reducing greenhouse emissions in California to 1990 levels by 2020, a reduction of over twenty-five percent.¹⁰ It sought to achieve this end by authorizing the California Air Resource Board to adopt rules and regulations, as well as monitoring and enforcing compliance.¹¹ It is with these goals in mind that the California legislature passed AB 1103 in 2007, a bill that mandates the reporting of a commercial building's energy usage to the EPA's Energy Star Program.¹² Based on its energy usage, each building is issued a rating from one to one hundred from the EPA.¹³ If a building receives a score of seventy-five or above, the owner may apply for an Energy Star label.¹⁴ This bill further directs electric and gas utilities to maintain records of energy consumption for all nonresidential buildings as of January 1, 2009, for at least the most recent twelve months.¹⁵ This data must be created in a format that is compatible for uploading to the EPA's Energy Star Portfolio

⁷ Cal. Exec. Order No. S-20-04 (2004).

⁸ *Id.*

⁹ Codified as CAL. HEALTH & SAFETY § 38561 (West 2006).

¹⁰ *Id.*

¹¹ *Id.*

¹² 2007 Cal. Legis. Serv. 533 (West). The Energy Star Program compares a building's energy efficiency when compared to similar buildings in the same industry or sector. Chuck Colgan, *Getting Ready for AB 1103*, CALIFORNIA CENTER FOR SUSTAINABLE ENERGY (May 11, 2010, 1:37 PM), <https://energycenter.org/index.php/news-a-media/latest-news/2137-getting-ready-for-ab-1103>. The result is a rating from one to one hundred, with a rating of fifty signifying that a building is performing at an average efficiency when compared to its peers. *Id.*

¹³ Joe Derhake, *California Getting Real Energy*, PARTNER ESI (Mar. 9, 2009), <http://www.partneresi.com/news/california-getting-real-energy.pdf>.

¹⁴ *Id.*

¹⁵ CAL. PUB. RES. CODE § 25402.10(a) (West 2011) ("On and after January 1, 2009, electric and gas utilities shall maintain records of the energy consumption data of all nonresidential buildings to which they provide service. This data shall be maintained, in a format compatible for uploading to the United States Environmental Protection Agency's Energy Star Portfolio Manager, for at least the most recent 12 months.").

Manager.¹⁶ Upon authorization from the building owner, the utility company is to upload this information to the Energy Star Portfolio Manager in such a way as to preserve the confidentiality of the utility's customers.¹⁷ The exact method of collecting and reporting this information is not mandated, but utility companies are encouraged to work with the EPA to maximize efficiency and minimize the cost of implementation.¹⁸ The code mandates the disclosure of the most recent twelve-month period of data to any prospective buyer, lessee, or lender of the commercial building.¹⁹ Beyond this, the current owner or operator of the building would not need to disclose anything further about the energy efficiency or rating of the building.²⁰ The aim of this legislation is to allow building owners and operators to compare their building's performance with similar buildings, better manage their energy costs, and help justify financial investments in energy efficiency.²¹

¹⁶ *Id.* Portfolio Manager is:

[A]n interactive energy management tool that allows [users] to track and assess energy and water consumption across [their] entire portfolio of buildings in a secure online environment . . . Portfolio Manager can help . . . set investment priorities, identify under-performing buildings, verify efficiency improvements, and receive EPA recognition for superior energy performance.

U.S. ENVIRONMENTAL PROTECTION AGENCY, Portfolio Manager Overview, http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager#rate (last visited Apr. 6, 2012) (For energy ratings, Portfolio Manager uses "statistically representative models . . . to compare [a user's] building against similar buildings from a national survey conducted by the Department of Energy's Energy Information Administration. This national survey, known as the Commercial Building Energy Consumption Survey (CBECS), is conducted every four years, and gathers data on building characteristics and energy use from thousands of buildings across the United States. [A user's] building's peer group of comparison is those buildings in the CBECS survey that have similar building and operating characteristics. A rating of 50 indicates that the building, from an energy consumption standpoint, performs better than 50% of all similar buildings nationwide, while a rating of 75 indicates that the building performs better than 75% of all similar buildings nationwide.").

¹⁷ See *supra* note 16 and accompanying text for an explanation of Portfolio Manager; CAL. PUB. RES. CODE § 25402.10(b) (West 2011) ("On and after January 1, 2009, upon the written authorization or secure electronic authorization of a nonresidential building owner or operator, an electric or gas utility shall upload all of the energy consumption data for the account specified for a building to the United States Environmental Protection Agency's Energy Star Portfolio Manager in a manner that preserves the confidentiality of the customer.").

¹⁸ CAL. PUB. RES. CODE § 25402.10(c) (West 2011) ("In carrying out this section, an electric or gas utility may use any method for providing the specified data in order to maximize efficiency and minimize overall program cost, and is encouraged to work with the United States Environmental Protection Agency and customers in developing reasonable reporting options.").

¹⁹ CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011) ("Based on a schedule developed by the commission pursuant to paragraph (2), an owner or operator of a nonresidential building shall disclose the United States Environmental Protection Agency's Energy Star Portfolio Manager benchmarking data and ratings for the most recent 12-month period to a prospective buyer, lessee of the entire building, or lender that would finance the entire building. If the data is delivered to a prospective buyer, lessee, or lender, a property owner, operator, or his or her agent is not required to provide additional information, and the information shall be deemed to be adequate to inform the prospective buyer, lessee, or lender regarding the United States Environmental Protection Agency's Energy Star Portfolio Manager benchmarking data and ratings for the most recent 12-month period for the building that is being sold, leased, financed, or refinanced.").

²⁰ CAL. PUB. RES. CODE § 25402.10(e) (West 2011) ("Notwithstanding subdivision (d), this section does not

increase or decrease the duties, if any, of a property owner, operator, or his or her broker or agent under this chapter or alter the duty of a seller, agent, or broker to disclose the existence of a material fact affecting the real property.").

²¹ 2007 Cal. Legis. Serv. 533 (West).

Assembly Bill 531 (AB 531), passed in 2009, amended California Public Resource Code section 25402.10 such that the implementation schedule of the code is to be set forth by the State Energy Resources Conservation and Development Commission, as well as made it explicit that the reporting of energy usage and ratings only applies when a whole building is to be rented, sold, or financed.²² AB 531 also called for the California Energy Commission to create a timetable for the implementation of AB 1103.²³

AB 1103 has a phase-in period of three years.²⁴ As of January 1, 2012,²⁵ owner-occupied commercial buildings greater than 50,000 square feet are required to comply with AB 1103's disclosure mandates.²⁶ Starting January 1, 2013, commercial buildings between 10,000 and 50,000 square feet are required to comply.²⁷ Finally, as of January 1, 2014, all non-residential commercial buildings between 5,000 and 10,000 square feet are required to comply with the disclosure requirements.²⁸ Buildings that are ineligible for an Energy Star rating, usually due to a use or class of buildings unsupported by the EPA's Portfolio Manager, must disclose the energy use intensity level of their buildings.²⁹

This EPA's Portfolio Manager is a free, web-based utility that building owners may use to report energy usage.³⁰ The Portfolio Manager uses two sources of information.³¹ The first is the energy usage data that is provided directly from the utility.³² The second source is a list of variables that the building owner must provide, as there is no automated system to collect such data.³³ For example, this data for an office building includes, *inter alia*, gross square footage of floor area, weekly operating hours, number of workers during main shift, number of

²² *Id.*

²³ *Id.*; Greg Kane, *Benchmarking Coming Soon to Commercial Buildings*, CAL. REAL ESTATE J., May 18, 2009, at 14, available at <http://virtualonlineeditions.com/publication/?i=16715&p=14>.

²⁴ See Mark Jewell, *Benchmarking with EPA's Energy Star® Portfolio Manager*, CONTRA COSTA COUNTY CLIMATE LEADERS 1, 2 (2010), http://www.ccclimateleaders.org/text/November_10/San%20Ramon_PM%20Training_19Oct10_4CL.pdf.

²⁵ *AB 1303 Commercial Building Energy Use Disclosure Program*, CALIFORNIA ENERGY COMMISSION, <http://www.energy.ca.gov/ab1103/> (last visited Apr. 6, 2012). "The revised draft regulations required the initial compliance to begin on July 1, 2012. However, new proposed regulations will postpone the initial compliance date until January 1, 2013. Initial compliance will not be required on July 1, 2012." *Id.*; see also, *Nonresidential Building Energy Use Disclosure Program*, CALIFORNIA ENERGY COMMISSION (Aug., 2011), <http://www.energy.ca.gov/2010publications/CEC-400-2010-004/CEC-400-2010-004-SD2.pdf> (for the current proposed draft regulations with the most recent implementation timetable).

²⁶ See Jewell, *supra* note 24, at 3.

²⁷ *Id.*

²⁸ *Id.* However, this timetable has been altered by the California Energy Commission, which has yet to finalize compliance deadlines. See *AB 1303 Commercial Building Energy Use Disclosure Program*, *supra* note 25.

²⁹ See Jewell, *supra* note 24, at 3. This energy use intensity is expressed in kBtu/sf-yr. *Id.*

³⁰ *Id.* at 6.

³¹ Steven L. Hoch, *Commercial Building Energy Rating Disclosures and Its Impact on Real Estate Transactions*, BROWNSTEIN HYATT FARBER SCHRECK (July 6, 2009), <http://www.bhfs.com/pilotresource/lookup/wosid/contentpilot-core-2301-11202/pdfCopy.pdf>.

³² *Id.*

³³ *Id.*

computers, and percentage of the floor area that is air conditioned.³⁴

Each building will receive a rating of one to one hundred based on its energy usage, and its comparative efficiency to similar buildings.³⁵ If a building achieves a score of seventy-five points or higher, it can apply for an Energy Star plaque and can advertise to consumers that it is Energy Star certified.³⁶ However, buildings applying for an Energy Star label must have its energy usage data certified by a licensed professional engineer.³⁷

AB 1103's adoption of the Energy Star system for its ratings represents a marked departure from more common and well-established systems.³⁸ In the past, California's sustainable building arena has been dominated by the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) system.³⁹ However, there have been recent efforts to make the two systems compatible, and thus encourage building owners to strive for certification in both programs.⁴⁰ Now, due to recent changes to the guidelines of the Existing Buildings Operations and Maintenance (EBOM) ratings in 2009, the Energy Star ratings system and the LEED system are much more compatible.⁴¹ The new guidelines account for thirty-five out of 110 energy related items on the new LEED system, and provides for up to eighteen points based on the Energy Star rating a building receives.⁴² It is hoped that the integration and interconnection between these two systems will encourage building owners to strive to obtain certification in both systems.⁴³ One main advantage of the two systems working in tandem is that once a building is given an Energy Star rating, a professional engineer can conduct an audit.⁴⁴ A licensed professional engineer then can help to create a list of easy energy improvements that the building owner can undertake to improve their rating.⁴⁵

III. MANDATORY ENERGY RATING AND DISCLOSURE—AN INTERNATIONAL TREND

While mandatory energy rating disclosure legislation is in its infancy in the United States, countries around the world have recognized the advantages of such an approach to energy conservation. Australia began a residential energy rating disclosure policy as early as 1995, and has recently expanded this policy to

³⁴ See Jewell, *supra* note 24, at 12.

³⁵ See Hoch, *supra* note 31.

³⁶ Jonathan Kroeker, *Energy Benchmarking Mandated by California AB 1103*, PRIORITY PRESS (Feb. 24, 2010), available at <http://web.archive.org/web/20100823010715/http://eorm.com/media/priority-press/energy-benchmarking-mandated-by-california-ab-1103/>.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *See id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

incorporate commercial buildings.⁴⁶ Denmark led Europe in such disclosure legislation, and became an important model for the European Union's Energy Performance of Buildings Directive (EPBD).⁴⁷ Some of the lessons learned from the more mature policies in these countries may act as a guide to future legislation in the United States, and can give useful insight into the potential impacts of California's AB 1103.

A. International Response

1. Australia

Australia unveiled its energy rating legislation in 1995, when it introduced a minimum energy performance standard for new homes.⁴⁸ New homes are required to score at least four stars out of a six star rating system that is based on energy modeling.⁴⁹ In 1999, Australia expanded this requirement, mandating all existing homes to be rated at time of sale.⁵⁰ Those homes that had obtained a rating via a sale or construction are required to have this rating disclosed to prospective renters as well.⁵¹ Enforcement of this policy constitutes a windfall to the buyer if the seller does not comply with the law.⁵² If the seller fails to disclose the energy rating at the time of sale, the buyer is entitled to financial compensation equal to 0.5% of the sale price.⁵³ However, an evaluation of the program in 2002 found some significant compliance and control issues.⁵⁴ Only thirty-nine percent of buyers received a rating disclosure at time of sale, fifty-two percent of homeowners did not find the rating useful, and about fifty percent of the ratings were conducted by assessors who had never visited the property.⁵⁵ About twenty-five percent of the sellers did not disclose the property's rating in advertising, and there was anecdotal evidence of sellers using false information to inflate ratings.⁵⁶ In 2008, the Australian government conducted a study to assess the impact of this energy disclosure policy.⁵⁷ The study analyzed all home sales in 2005 and 2006 (approximately 5,000) and found a premium of about three percent for each additional star a home acquired.⁵⁸ The study illustrated that energy improvements

⁴⁶ Phillipe Dunskey, Jeff Lindberg, Eminé Piyalé-Sheard & Richard Faesy, *Valuing Building Energy Efficiency Through Disclosure and Upgrade Policies- a Roadmap for the Northeast U.S.*, A DUNSKY ENERGY CONSULTING REPORT 1, 58 (Nov., 2009), http://www.neep.org/uploads/policy/NEEP_BER_Report_12.14.09.pdf.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.* In addition, this mandatory disclosure policy is augmented by a voluntary incentive program called ACT Energy Wise that subsidizes energy retrofits and audits. *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.* at 61.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.* at 60.

⁵⁷ *Id.*

⁵⁸ *Id.* at 90. This premium represents about \$110,000 Australia dollars, or roughly \$9,000 U.S.

can be very cost effective, with returns of up to 900% on retrofit costs upon sale.⁵⁹ However, the study did not attempt to discover if this theoretical return was actually impacting homeowner's decisions and prompting the use of energy upgrades.⁶⁰

Recently, Australia has expanded their energy disclosure legislation to regulate commercial buildings as well.⁶¹ Effective July 1, 2010, Australia's Building Energy Efficiency Disclosure Act requires commercial building owners to obtain a Building Energy Efficiency Certificate (BEEC) and disclose this certificate to potential buyers or lessees.⁶² The BEEC consists of an energy efficiency rating that is based on the National Australian Built Environment Rating System, an assessment of the efficiency of the building's lighting, and an assessment report that gives guidance as to how to improve the building's energy efficiency.⁶³

2. Denmark

Denmark was one of the first countries to adopt mandatory energy rating disclosure legislation.⁶⁴ Beginning January 1, 1997, all new and existing residential and commercial buildings were required to obtain an energy label that discloses the building's energy and water consumption as well as its carbon dioxide emissions.⁶⁵ The Danish model was instrumental in shaping the later European Union's EPBD in 2003.⁶⁶ In 2006, Denmark refined its law by incorporating successful elements of the EPBD.⁶⁷ The Danish policy distinguishes the various disclosure requirements for buildings based on their size.⁶⁸ Small buildings less than 16,000 square feet (primarily apartments, residential units, and small commercial buildings) are required to obtain an energy label at the time of sale, with the energy usage of the building calculated using energy modeling, standardized occupancy, and weather assumptions.⁶⁹ Large buildings over 16,000

dollars. *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ Ian Taylor, Jane Wild & Daniel Solomon, *New Energy Efficiency Disclosure Requirements*, DIBBSBARKER (July 6, 2010), http://www.dibbsbarker.com/publication/New_Energy_Efficiency_Disclosure_Requirements.aspx.

⁶² *Building Energy Efficiency Disclosure Act 2010* (Cth) s 23 (Austl.); Talor, *supra* note 61. A BEEC is valid for twelve months, must be provided to potential buyers or lessees upon request, and is registered in a database that is accessible online. Exceptions to the disclosure requirement include, *inter alia*, if a lease or sublease is for twelve months or less, if the building is used for police or security operations, or if the building's use or characteristics are such that rating its energy efficiency is impossible under the current system. *Id.*

⁶³ *Id.*

⁶⁴ See Dunsky, *supra* note 46, at 58.

⁶⁵ *Id.*

⁶⁶ *Id.*; Council Directive 2002/91, art. 3, 2002 O.J. (L 001) (Eur.).

⁶⁷ See Dunsky, *supra* note 46, at 58.

⁶⁸ *Id.*

⁶⁹ *Id.*

square feet must obtain an operational energy label every year.⁷⁰ The goal of the policy is to educate owners on their energy consumption, meaningfully compare similar buildings, and allow implementation of cost effective upgrades.⁷¹

Enforcement of the policy includes random building audits (one out of 500 buildings), as well as the review of labeling forms (one out of 100 forms).⁷² The Danish Energy Authority conducted a survey between June 2000 and February 2001 to evaluate the effectiveness of the policy.⁷³ For large buildings, the survey found low compliance at only forty-two percent of buildings being registered.⁷⁴ Furthermore, only fifty percent of the unregistered buildings' owners knew of the program's existence.⁷⁵ For small buildings, seventy percent of single-family dwellings were labeled at the time of sale.⁷⁶ Twenty percent of single-family houses were labeled within 6.5 years.⁷⁷ Only fifty to sixty percent of small buildings were registered under the scheme, with a wide variation between geographic areas.⁷⁸ Once again, less than half of the interviewed owners knew of the labeling scheme.⁷⁹

3. Europe

Pursuant to the Kyoto Protocol, the European Union agreed to reduce carbon dioxide emissions by eight percent below 1990 levels between 2008 and 2012.⁸⁰ To further this end, the European Climate Change Programme was launched in 2000 to identify a list of priority actions and measures that would help achieve this goal.⁸¹ As the building sector accounted for close to forty percent of the European Union's total energy consumption, a focus was given to the energy performance of buildings.⁸² The EPBD was adopted on December 16, 2002, and became effective January 4, 2003.⁸³ Member states were required to incorporate the EPBD's

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.* at 61.

⁷⁸ *Id.*

⁷⁹ *Id.* at 63.

⁸⁰ See Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998), available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf>. Signed by the Framework Convention on Climate Change in 1992, the Kyoto Protocol's stated goal is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." *Id.*

⁸¹ Georg Benke, *The European Green Building Programme Benchmarking*, END-USE EFFICIENCY RESEARCH GROUP, 1, 3, http://www.eerg.it/greenbuilding/doc/GB_Technical%20Module_Benchmarking.pdf (last visited Apr. 6, 2012).

⁸² *Id.*

⁸³ Council Directive 2002/91, art. 3, 2002 O.J. (L 001) at 65 (Eur.), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:001:0065:0071:EN:PDF>.

requirements into their respective nation's laws by January 4, 2009.⁸⁴ The EPBD encompasses both new and existing residential and commercial buildings.⁸⁵ Under the EPBD, member states are required to develop a method of calculating the energy performance of buildings.⁸⁶ They must also set forth minimum energy performance standards for new and existing buildings.⁸⁷ In addition, the building owner must furnish an Energy Performance Certificate (EPC) to any prospective buyer or lessee at the time of sale, construction, or rental.⁸⁸ Additionally, boilers and air conditioning units are to be inspected at regular intervals.⁸⁹ All of the inspections, certifications, and recommendations for energy improvements to buildings must be conducted by independent and qualified experts.⁹⁰

B. Mandatory Energy Rating and Disclosure in the United States

While California has led the charge in mandated energy disclosure for commercial buildings, other jurisdictions have followed suit.⁹¹ Washington State, along with New York City, Austin, Seattle, and Washington, D.C., have passed legislation requiring performance ratings and public disclosure for privately owned commercial buildings.⁹²

Thus far, all of these policies utilize the EPA's Energy Star software to generate ratings.⁹³ At the federal level, provisions requiring federal agencies to develop a building energy label were included in two bills introduced in 2009:

⁸⁴ *Id.*

⁸⁵ *Id.*; Dunsky, *supra* note 46, at 63. "The Directive covers both residential and non-residential buildings, for both new and existing constructions, but allows for certain exemptions such as buildings with historical or architectural merit, religious buildings, buildings with limited time of use, and buildings with a useful floor area of less than 50 [meters squared]." *Id.*

⁸⁶ Dunsky, *supra* note 46, at 63. "[A]ccording to a general framework that includes specific considerations such as the thermal characteristics of a building, HVAC installations, built-in lighting, passive solar, natural ventilation, local climatic conditions, etc." *Id.*

⁸⁷ *Id.* at 64 ("For existing buildings over 1000 m² undergoing major renovations, energy performance must be upgraded as far as is technically, functionally and economically feasible. For new buildings over 1000 m², in addition to applying MEPS [Minimum Energy Performance Standards], the feasibility of alternative energy sources must be taken into consideration. Member States must review their MEPS at regular intervals (max. 5 years) in order to reflect technological progress in the building sector.")

⁸⁸ *Id.* ("The EPC must include recommendations for a list of cost-effective improvements of the building's energy performance and should include reference values such as benchmarks to allow consumers and assess the energy performance of the building in comparison with other similar properties. Furthermore, buildings over 1000 m² occupied by public authorities and visited by the public must display an energy certificate in a clearly visible location.")

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ Andrew Burr, Cliff Majersik, David Goldstein & Nick Zigelbaum, *Empowering the Market: How Building Energy Performance Rating and Disclosure Policies Encourage U.S. Energy Efficiency*, in ACEEE SUMMER STUDY ON ENERGY EFFICIENCY IN BUILDINGS 8-42 (2010), available at <http://eec.ucdavis.edu/ACEEE/2010/data/papers/2182.pdf> [hereinafter *Empower the Market*].

⁹² *Id.*

⁹³ *Id.* However, while this is the only rating system currently employed by such policies, alternative rating systems remain available to future policymakers. *Id.* Emerging rating systems include the American Society of Heating, Refrigerating and Air-Conditioning Engineers, and the STM International and Portland Energy Conservation, Inc.. *Id.*

H.R. 2454, better known as the American Clean Energy and Security Act, and S. 1462, the American Clean Energy Leadership Act.⁹⁴ The latter launched the National Building Rating Program in late 2009, a joint effort with the EPA to develop a standard building energy label and rating methodology for homes and commercial buildings.⁹⁵

1. *Washington, D.C.*

On July 15, 2008, Washington, D.C. passed the Clean and Affordable Energy Act, which was signed into law by Mayor Adrian Fenty on August 4, 2008.⁹⁶ The law mandates that nonresidential buildings are to be rated annually beginning in 2010, regardless of transaction activity, and ratings will be posted on a public web site administered by the District of Columbia.⁹⁷ The regulation affects buildings with at least 50,000 square feet and has a phase-in period over four years.⁹⁸ Buildings owned or operated by the District of Columbia that are greater than 10,000 square feet in size are required to begin rating in late 2009.⁹⁹ New construction over 50,000 square feet must estimate energy usage and publicly disclose energy performance by 2012.¹⁰⁰ This is the first mandatory energy rating disclosure law that was not tied to ‘triggering’ events such as a sale or lease, opting for an annual requirement instead.¹⁰¹ Washington, D.C. is also the first jurisdiction to require posting ratings to a public website, and is currently the only jurisdiction that requires such ratings for new commercial construction.¹⁰²

2. *Austin, TX*

Austin enacted the Energy Conservation Audit and Disclosure Ordinance in November 2008.¹⁰³ This ordinance requires disclosure of energy ratings for commercial buildings by mid-2011.¹⁰⁴ These disclosures are required to be made to all parties to the sale of the building.¹⁰⁵ However, new construction is exempted from such disclosures until it reaches ten years of age.¹⁰⁶ Smaller buildings are

⁹⁴ American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009); American Clean Energy Leadership Act of 2009, S. 1462, 111th Cong. (2009).

⁹⁵ See Dunsky, *supra* note 46, at 102.

⁹⁶ 2008 D.C. Legis. Serv. 17-250 (West).

⁹⁷ *Id.* Washington, D.C. was the first U.S. jurisdiction to require public disclosure of energy ratings to a public database. Pam Hunter, *More Cities, States Require Mandatory Benchmarking*, MCGRAW HILL CONSTRUCTION (Jan. 13, 2010), <http://www.imt.org/files/FileUpload/files/Benchmark/ENR-MoreCities,StatesRequireMandatoryBenchmarking.pdf>.

⁹⁸ 2008 D.C. Legis. Serv. 17-250 (West).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ See *Empowering the Market*, *supra* note 91, at 8-47.

¹⁰² *Id.*

¹⁰³ Austin, Tex., Ordinance 20081106-047 (2008).

¹⁰⁴ See *id.*; *Empowering the Market*, *supra* note 91, at 8-47.

¹⁰⁵ See Austin, Tex., Ordinance 20081106-047 (2008).

¹⁰⁶ See *id.*

required to create ratings via software provided by Austin Energy, a utility administered by the city.¹⁰⁷ The city also requires similar audits of single and multi-family homes.¹⁰⁸

The ordinance additionally requires energy rating disclosure of single-family homes at the time of sale.¹⁰⁹ All multi-family dwellings must complete an energy audit by mid-2011, the results of which must be disclosed to potential buyers or tenants as well as displayed inside the building itself.¹¹⁰ Those that consume 150% more energy than the average multi-family building are to be deemed “high energy-use” buildings.¹¹¹ Such buildings must implement energy efficient retrofits to bring the building within 110% of the average multi-family building’s energy usage within eighteen months.¹¹² The enforcement mechanism for the ordinance includes a fine of \$500 for noncompliance, and a fine of up to \$2,000 if the owner acts with criminal negligence.¹¹³

3. *Washington State*

Washington followed California’s lead in mid-2009, enacting its own energy disclosure legislation, Senate Bill 5854.¹¹⁴ The disclosure requirements of the legislation are nearly identical to that of California.¹¹⁵ It requires measuring of ratings by commercial building owners with the assistance of utilities, and the disclosure of such ratings at the time of sale, financing, or leasing of the building.¹¹⁶ The law impacts buildings of 10,000 square feet or greater, and fully phases in commercial buildings of all sizes over a two-year period.¹¹⁷ Washington has also taken proactive steps towards energy efficiency of government buildings. Public buildings with a poor Energy Star rating (defined as a score of fifty or less) must undergo a preliminary audit.¹¹⁸ If such an audit identifies retrofits that would be cost effective, an investment-grade audit is required to be executed by mid-

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ Austin, Tex., Ordinance 20081106-047 § 6-4-42 (2008).

¹¹⁴ 2009 Wash. Sess. Laws 2156. The Washington legislature cited several concerns that the bill is aimed at addressing, including combating the thirty percent of greenhouse emissions that buildings account for in the state. *Id.*

¹¹⁵ 2009 Wash. Sess. Laws 2162. Similar to California, this bill requires utilities to maintain records of energy consumption by nonresidential properties starting January 1, 2010. *Id.* Such data must be kept for at least the most recent twelve months and must be in a format that is compatible for uploading to the EPA’s Energy Star Portfolio Manager. *Id.* Upon written authorization from the building owner, the utility then shall upload such data to Portfolio Manager in such a way as to not disclose any personally identifying information. *Id.*

¹¹⁶ 2009 Wash. Sess. Laws 2163.

¹¹⁷ *Id.* The bill sets a timeline in which nonresidential buildings greater than 50,000 square feet are required to disclose by January 1, 2011, and buildings greater than 10,000 square feet by January 1, 2012. *Id.*

¹¹⁸ *Id.* at 2163–64.

2013, and the retrofits implemented by 2016.¹¹⁹ In addition, Washington has set minimum energy efficiency requirements for private buildings that are leased for government use.¹²⁰ Beginning in 2010, state agencies may not sign or renew a lease in a building that has received an Energy Star rating of less than seventy-five.¹²¹ However, there exists an exception whereby a privately owned building may be leased by a state agency if the owner agrees to implement an energy audit and cost-effective upgrades within the first few years of the lease.¹²²

4. *Seattle, Washington*

Seattle enacted Ordinance No. 123226 in 2010, which broadened the requirements of the above state law.¹²³ Beginning in 2011, the Seattle policy required annual energy ratings of commercial buildings regardless of transactional activity.¹²⁴ Within seven days of a request, building owners are required to disclose their energy rating to any current tenant, prospective tenant, potential buyers, or potential lenders.¹²⁵ The policy also mandates disclosure of such usage to the government starting in 2012, and extends the state rating requirements to multi-family dwellings.¹²⁶

5. *New York City, New York*

New York City is also one of the few U.S. cities that have enacted energy disclosure legislation. In 2009, New York City passed four such bills, collectively known as the Greener, Greater Building Plan.¹²⁷ This comprehensive plan incorporates periodic energy audits, lighting retrofits, water benchmarking, energy retrofits, as well as energy rating and disclosure for existing commercial

¹¹⁹ *Id.*

¹²⁰ 2009 Wash. Sess. Laws 2163.

¹²¹ *Id.*

¹²² *Id.*

¹²³ Seattle, Wash., Ordinance 123226 (2010). One of the stated goals of the bill is to work towards the city's goal of a twenty percent improvement in energy performance of existing buildings by 2020 when compared to 2005 levels. *Id.*

¹²⁴ Seattle, Wash., Ordinance 123226 § 22.920.060 (2010). Seattle's disclosure requirements are modeled after those enacted in California. *Id.* Starting January 1, 2010, utility companies must keep track of nonresidential or multi-family buildings' energy usage for the most recent twelve months in a format that is compatible with the EPA's Energy Star Portfolio Manager. *Id.* Within sixty days of authorization from the owner, the utility companies are required to upload this usage information to Portfolio Manager in such a way as to preserve the confidentiality of the customer. *Id.*

¹²⁵ Seattle, Wash., Ordinance 123226 § 22.920.080 (2010). Failure to provide an energy report to one of these parties who request it may result in a building owner being investigated by the Director. Seattle, Wash., Ordinance 123226 § 22.920.120 9(A), (B) (2010). Upon a finding of noncompliance, the director has authority to issue a citation for \$150 for the first violation and \$500 for any subsequent violation. *Id.* If an energy report is still not filed within fifteen days of the issuance of the citation, the owner may be fined \$150 per day for the first ten days and \$500 per day afterwards, until the owner complies. *Id.*

¹²⁶ Seattle, Wash., Ordinance 123226 § 22.920.060 (2010).

¹²⁷ N.Y.C., N.Y., ADMIN. CODE ch. 3, tit. 28. The Greener Greater Building Plan is comprised of New York Local Law 84, Local Law 85, Local Law 87, and Local Law 88. *Id.*

buildings.¹²⁸ For energy rating and disclosure, the plan mandates annual rating and disclosure on a public website provided by the city for any large commercial or multi-family dwelling starting in 2011.¹²⁹ In addition, any building wholly leased by the city must comply with this rating and disclosure scheme, with low rated buildings requiring an energy audit and cost-effective improvements.¹³⁰

IV. ANALYSIS

A. Comparison of Existing Energy Disclosure Legislation

While United States energy disclosure legislation is in its infancy, certain trends and schemes have emerged. These include strategies such as establishing minimum energy requirements for government-leased buildings, disclosure of ratings to current tenants and potential financiers, energy disclosure to the government, disclosure on public websites, reporting on regular intervals, and requiring efficiency improvements to buildings based on their energy ratings.

1. Emerging Trends in Energy Rating and Disclosure Legislation

One such emerging trend is the adoption of regularly scheduled intervals for energy performance ratings instead of basing them on triggering events such as a lease, sale, construction, or financing of a building.¹³¹ Washington, D.C., New York City, and Seattle have all implemented such an approach.¹³² In Europe, countries such as Denmark have begun adopting this scheme outside of the EPBD, signaling that the method may be gaining international recognition.¹³³ Some of the benefits of this method over transactional triggers are that it captures more of the real estate market for rating and that it makes energy ratings more comparable. Ratings triggered by events such as transactions and construction only impact existing buildings immediately preceding these events.¹³⁴ As many buildings may go a long time without such a triggering event, data is sparse, and effectively exempts these buildings for a period of time.¹³⁵ Scheduled ratings increase the effectiveness of disclosure.¹³⁶ By creating a set time for buildings to be rated, it allows for more effective comparisons of energy usage under similar conditions.¹³⁷ Having all relevant data collected from around the same time, as opposed to staggered data, may also facilitate prompt and effective policy responses to the

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.* Similar to Washington's legislation, buildings owned or fully leased by the government that receive low ratings are required to undergo an energy audit and make cost-effective improvements. *Id.*

¹³¹ Burr, *supra* note 1.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.* at 8.

¹³⁷ *Id.*

results.¹³⁸

Another such trend is to require disclosure of energy ratings to current tenants as well as potential financiers.¹³⁹ California and Washington both require disclosure to a prospective lender.¹⁴⁰ This scheme is aimed to inform lenders of the efficiency of buildings before loans are executed, hopefully allowing for more favorable rates and terms for energy efficient buildings.¹⁴¹ This would incentivize owners to improve their ratings to gain a financial advantage. Currently, Seattle requires disclosure of energy ratings to existing tenants as well.¹⁴² The rationale is that allowing a current tenant to see the energy rating of the building may motivate him to improve his operational use of energy, or to encourage or pressure the landlord to make energy efficiency improvements to the building.

While most benchmarking legislation is simply aimed at measuring the energy efficiency of a building, a growing number of jurisdictions are requiring the owners of buildings with low ratings to install energy upgrades.¹⁴³ Washington and New York City, as well as foreign countries such as Denmark, all require some form of mandatory energy upgrades for buildings that obtain low energy ratings.¹⁴⁴ Another way policy makers have sought to encourage voluntary energy upgrades is to establish minimum energy standards for buildings leased by government entities.¹⁴⁵ Pursuant to the Energy Independence and Security Act of 2007, United States federal agencies are required to only sign leases in buildings that acquire an Energy Star rating of seventy-five or greater.¹⁴⁶ Washington followed suit, and currently requires that a building obtain an Energy Star rating of seventy-five or higher for it to be eligible to be leased by state government entities.¹⁴⁷

Still, other jurisdictions require that energy ratings be disclosed to government agencies. New York City, Washington D.C., and Seattle require energy ratings as well as disclosure of these ratings to the government, while Austin requires disclosure to a municipal utility company administered by the city.¹⁴⁸ Such disclosure is aimed at allowing local governments to 1) track energy efficiency progress; 2) better establish standards and programs on energy efficiency; 3) establish a baseline for energy efficiency for local buildings; 4) create an overall performance goal of all measured buildings; and 5) create future building policies based on reported data.¹⁴⁹ By disclosing this information to government entities, public agencies will be better able to track energy efficiency

¹³⁸ *Id.*

¹³⁹ See CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011); 2009 Wash. Sess. Laws 2162; Seattle, Wash., Ordinance 123.226 (2010).

¹⁴⁰ See CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011); 2009 Wash. Sess. Laws 2162; Seattle, Wash., Ordinance 123.226 (2010).

¹⁴¹ See Burr, *supra* note 1, at 9.

¹⁴² *Id.* at 10.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 (2007).

¹⁴⁷ 2009 Wash. Sess. Laws 2162.

¹⁴⁸ Burr, *supra* note 1.

¹⁴⁹ *Id.*

trends and develop future policies in response.¹⁵⁰

Yet another approach taken by some United States jurisdictions has been mandating that the energy usage of a building be disclosed on a public website. New York City and Washington, D.C. both administer public websites and require building owners to post their energy usage.¹⁵¹ While there is currently little data on the subject, it is hoped that disclosure of a building's energy usage on a public website will be more effective than physically posting the rating on the building.¹⁵² It can make the information more widely available to the public and may further stigmatize inefficient buildings and enhance the motivation to implement energy upgrades.¹⁵³

2. Energy Disclosure Legislation as a Market Force

One of the core goals of Assembly Bill 1103 and similar legislation is to create an informed marketplace in which energy-conscious tenants, prospective buyers, and financiers will demand more energy-efficient buildings.¹⁵⁴ With such ratings readily available, energy cost savings would be factored into leasing and buying commercial property, creating market pressure for building owners to implement energy retrofits, and to make their buildings more energy efficient.¹⁵⁵

As many of the policies in the United States are in their infancy or are not yet in effect, market data that would indicate that energy rating and disclosure legislation is effective is sparse.¹⁵⁶ However, market data from voluntary programs such as the EPA's Energy Star Program demonstrates that labeling can create a positive impact on the marketability of conforming products.¹⁵⁷ Given this, it is conceivable that a similar effect could be seen in the commercial real estate market. Some studies have shown that Energy Star rated buildings boast higher occupancy rates, rental rates, and sale prices than comparable, non Energy Star-rated buildings.¹⁵⁸ While this data is based on voluntary compliance, the fact that all current legislation within the United States uses the EPA's Energy Star

¹⁵⁰ *Id.* "The Concerted Action EPBD, in its Executive Summary Report on the Interim Conclusions of the CA EPBD (2007-2010), recommended that every MS (or region) should collect EPC data in a central register for many of the reasons stated above." *Id.* (internal quotation marks omitted).

¹⁵¹ See 2009 Wash. Sess. Laws 2162; N.Y.C., N.Y., ADMIN. CODE ch. 3, tit. 28; *Empowering the Market*, *supra* note 91, at 8-48.

¹⁵² Burr, *supra* note 1.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at 7.

¹⁵⁷ *Id.* The Energy Star program had rated more than 97,000 buildings totaling 14 million square feet of floor space as of fall 2009. *Id.* About 1,850 buildings earned the Energy Star label for 2009, signifying that they are some of the nation's most energy efficient buildings. *Id.*

¹⁵⁸ See, e.g., Piet Eichholtz, Nils Kok & John M. Quigley, *Doing Well by Doing Good? Green Office Buildings*, EUROPEAN CENTRE FOR CORPORATE ENGAGEMENT (Jan., 2009), available at <http://www.unpri.org/files/Article%20November.pdf>. This study found a premium for Energy Star rating buildings but not for LEED rated buildings. *Id.* at 4. For Energy Star buildings, there was a premium of three percent for rents and sixteen percent for sales prices at time of sale. *Id.* Furthermore, it found that, for every dollar invested in energy efficiency, owners could see a return of up to \$18 in rental and sales price premiums when energy performance is disclosed to buyers. *Id.* at 24.

Program makes such data probative to the future effectiveness of such policies.

As Assembly Bill 1103 was largely modeled after the European Union's EPBD, the success and effectiveness of this directive in Europe may shed light on the impact Assembly Bill 1103 will have in California.¹⁵⁹ Article seven of EPBD requires member countries to establish policies to measure energy usage and establish energy certification schemes for buildings.¹⁶⁰ The EPBD requires that at the time of construction, lease, or sale of the building, the owner must make an energy certification available.¹⁶¹ It further requires that a commercial building that is leased by a public entity that provides public services must publicly display its energy certification on the premises.¹⁶² These certificates are to have energy information on the building and energy efficiency improvement recommendations.¹⁶³ Pending revisions to the EPBD would require disclosure of these certificates on advertising for sale or lease of the building, as well as lower the building size threshold for publicly displaying the certificate on the premises.¹⁶⁴

B. Blueprint for Effective Energy Disclosure Legislation

While there is no agreed-upon model or framework for energy rating disclosure legislation, there are a few elements that have been shown to make policies effective.

First, the rating system employed by the legislation must be a trusted rating system.¹⁶⁵ The public must believe that the rating accurately reflects the actual efficiency of the building.¹⁶⁶ While no system is perfect, public perception must not view the rating system as inaccurate or easily gamed or sidestepped.¹⁶⁷ In addition, the burden of aggregating energy usage from individual meters on buildings and uploading it to the desired rating system should be allocated to utilities.¹⁶⁸ This would be helpful to multi-tenant building owners, and may improve reporting accuracy, and encourage compliance.¹⁶⁹ Furthermore, such a rating system needs to be trusted by owners and tenants alike. This entails assuring the confidentiality of those who provide energy-related information to the entity that implements the rating system.¹⁷⁰ To best protect the privacy of the owners

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ Dunsky, *supra* note 46.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ Burr, *supra* note 1. "This is particularly helpful to owners of multi-tenant buildings where the owner would otherwise have to manually aggregate utility data. It also preserves the privacy of tenant utility data." *Id.*

¹⁷⁰ MATTHEW STERN, PAUL FOLEY & JAVIER GARCIA-LOMAS GAGO, LEGAL BARRIERS TO THE ADOPTION OF THE MODEL BUILDING ENERGY PERFORMANCE AND DISCLOSURE ACT, INST. FOR

and tenants, Northeast Energy Efficiency Partnership (NEEP) suggests using a secure, web-based central registry administered by a state agency to compile the relevant information.¹⁷¹ A web-based registry allows for easy uploading of such information, and access to this information can be restricted to only those who provide essential energy performance tasks such as auditors and local energy code enforcement officials.¹⁷² This secure database may hold all of the information needed to compile and give a final rating to the building, while a publicly accessible database or website would be restricted to providing only the final rating of the building.¹⁷³

Second, there must be a clear and accessible message sent to the consumer.¹⁷⁴ Energy ratings and information disclosure should be easily accessible and understandable to the consumer.¹⁷⁵ Without such accessibility and transparency, the consumer no longer can play a role in the market forces that would drive compliance and voluntary energy upgrades.¹⁷⁶ One way to improve accessibility is to mandate posting of ratings to a publicly accessible website.¹⁷⁷

Third, there must be strong enforcement of the legislation's provisions.¹⁷⁸ Without strong incentives for compliance and penalties for noncompliance, a mandatory energy disclosure policy will prove ineffective.¹⁷⁹ The success of such policies depends on the ratings being ubiquitous, thus requiring a high level of participation from building owners.¹⁸⁰ Both the Australian and Danish disclosure laws illustrate the pitfalls of simply enacting educational campaigns and enforcing light penalties on those that do not comply.¹⁸¹ Effective enforcement mechanisms may include random audits of both the accuracy and compliance with energy ratings, third party verification, and fines for violations.¹⁸²

Fourth, such legislation should require timely and early disclosure.¹⁸³ The consumer must have the energy ratings early in the transaction to influence his or her decision making.¹⁸⁴ For buying or leasing a property, this means disclosure of the building's rating during stages that precede the final decision of the consumer,

ENERGY AND THE ENV'T, VT. LAW SCH., 1, 9 (Feb. 2010), <http://oregon.gov/ENERGY/CONS/EPS/docs/NEEPIIEEFinalReportOnModelLegLanguageFeb2010.pdf>.

¹⁷¹ *Id.* at 10–11.

¹⁷² *Id.* at 11.

¹⁷³ *See id.*

¹⁷⁴ *Empowering the Market*, *supra* note 91, at 8-42.

¹⁷⁵ *Id.* at 2–3.

¹⁷⁶ *See id.* at 3.

¹⁷⁷ *Id.* at 10. “Disclosure to a public web site provides maximum building energy transparency to the real estate marketplace and the general public. Ratings for multiple years should be posted, providing recognition for buildings that have demonstrated rating improvement.” *Id.*

¹⁷⁸ *Id.*; *see generally*, STERN, *supra* note 170, at 13–16.

¹⁷⁹ STERN, *supra* note 170, at 13.

¹⁸⁰ *Id.* at 14.

¹⁸¹ *Building Energy Efficiency Disclosure Act 2010* (Cth) s 23 (Austl.); *see Empowering the Market*, *supra* note 91, at 8–68.

¹⁸² *See Empowering the Market*, *supra* note 91, at 8–50.

¹⁸³ *Id.*

¹⁸⁴ *Id.*

for example during marketing and advertising of the property.¹⁸⁵ This allows for an informed consumer base that may compare shop buildings based on such ratings, thus rewarding those with higher ratings and creating a price premium for such buildings.¹⁸⁶ In addition, early disclosure of ratings may create a performance feedback loop between engineers, designers, architects, builders, and operators.¹⁸⁷

Fifth, such legislation should link ratings with active ways to improve energy efficiency.¹⁸⁸ While ratings and disclosure of an energy score is important, linking this information to specific ways owners may improve the efficiency of the building is essential.¹⁸⁹ Without specific recommendations tailored to the ratings of their building, owners may be hesitant to embark on what may be perceived as costly and dubiously-effective energy upgrades.¹⁹⁰ In addition, the government should only lease buildings that meet certain minimum efficiency requirements.¹⁹¹ In this way, the government may use its purchasing power as leverage to further incentivize owners to improve their energy rating via efficiency upgrades and retrofits.¹⁹² In addition, the government may impose further requirements on buildings it leases, such as conducting an energy audit and mandatory upgrades, if the efficiency of the building falls below a certain level.¹⁹³ This influence of the government may also spur private companies to follow suit, greatly increasing the pressure on private owners to improve their energy ratings.¹⁹⁴ Furthermore, any policy should be phased in over a period of years, based on building size.¹⁹⁵ This allows the market to adjust to the ratings, allows owners to make improvements to their buildings before being rated, and may reduce noncompliance issues.¹⁹⁶

Finally, energy ratings should be reported to local governments, so they may use efficiency ratings to craft future policy.¹⁹⁷ Reported ratings would create baseline data that would allow for future improvements via regulation.¹⁹⁸ In addition, reporting to local government may result in increased building code compliance and lower overhead for government enforcement of such codes.¹⁹⁹ Energy-related building codes could be enforced by simply looking at a building's energy rating, and only investigating those with ratings lower than what would be

¹⁸⁵ *Id.* "Disclosure in advertising material is critical for any transaction-based disclosures. Ratings will be more influential to the potential buyers, lessees and financiers of buildings if disclosed early in the process." *Id.*

¹⁸⁶ *Id.* at 2.

¹⁸⁷ *See id.* at 2, 4.

¹⁸⁸ *Id.* at 2, 5.

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ *Id.* at 11.

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ *Id.* at 2.

¹⁹⁹ *See id.* at 2.

expected if the owner was in compliance.²⁰⁰

C. Comparison of AB 1103 to the Blueprint

In accordance to the blueprint outlined above, any mandatory energy rating legislation such as AB 1103 should incorporate a few basic elements to insure its effectiveness.

First, the energy rating system employed by AB 1103 needs to be a trusted rating system.²⁰¹ AB 1103 utilizes the EPA's Energy Star and Portfolio Manager systems.²⁰² These systems are prevalent, recognizable, and administered by a federal agency.²⁰³ The Energy Star and Portfolio Manager systems are web-based, easily accessible, and the Energy Star logo is recognized by seventy-five percent of Americans.²⁰⁴ With over 140,000 buildings rated and over 10,000 marked with an Energy Star label, this rating system is prevalent and well established.²⁰⁵ In addition, using and reporting energy-related information to Portfolio Manager by owners is relatively simple.²⁰⁶

In addition, the burden for aggregating energy information from individual meters should be placed upon the utilities in order to reduce the burden on owners and to increase compliance.²⁰⁷ AB 1103 mandates that the energy utilities compile energy usage information of the building and upload it to Portfolio Manager upon authorization from the owner.²⁰⁸ However, there is additional information that is required under AB 1103 that cannot be automatically uploaded.²⁰⁹ For example, an office building owner would be required to disclose 1) gross square footage of floor area; 2) weekly operating hours; 3) number of workers during main shift; 4) number of computers; 5) percentage of the floor area that is air conditioned; and 6) percentage of floor area that is heated.²¹⁰ For the last two criteria, an owner may choose between above fifty percent of the floor space, below fifty percent of the floor space, or no floor space that is heated or air conditioned.²¹¹ However, reporting of these statistics for an owner of a large building may potentially be very onerous. Therefore, while AB 1103 may seem to correctly put the burden of disclosure on utility companies, commercial building owners may still be left expending a great deal of time and energy to comply with the law.

²⁰⁰ *Id.*

²⁰¹ *Id.* at 28.

²⁰² CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011).

²⁰³ See Jewell, *supra* note 24, at 6.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.* Steps for owners include: (1) create a Portfolio Manager account; (2) create a facility, building spaces, and meters; (3) select Automated Benchmarking Services link and pick your utility from the drop down list; (4) fill out authorization process for utility meters and input utility-specific required data; and (5) log back into account to see meter data and benchmarking results. *Id.*

²⁰⁷ See *Empowering the Market*, *supra* note 91, at 8-51.

²⁰⁸ CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011).

²⁰⁹ Jewell, *supra* note 24, at 12.

²¹⁰ *Id.*

²¹¹ *Id.*

Additionally, to establish a trustworthy system, customer and owner information must remain confidential.²¹² NEEP suggests a secure, web-based central registry administered by a state agency to tackle this problem.²¹³ AB 1103 uses Portfolio Manager to compile such relevant information.²¹⁴ This is a secure, password-protected, and web-based database that is administered by the EPA.²¹⁵ AB 1103 does not mandate publishing the energy rating of commercial buildings on a public website; therefore, there is little danger of sensitive or private information being disclosed to the public.²¹⁶

However, tenant privacy rights may still exist that could affect a building owner's liability. While the energy utility compiles a tenant's energy usage, it is the building owner's written authorization that allows for this information to be uploaded to the EPA's Portfolio Manager.²¹⁷ In a triple-net lease, wherein a tenant contracts directly with a utility for energy services, this authorization to disclose a tenant's energy usage may be a future legal pitfall for owners.²¹⁸ In addition, it requires gathering of certain data from the tenant, such as the number of employees on the main shift and the number of computers.²¹⁹ AB 1103 does not address this issue, thus owners should determine alternative methods to minimize future liability, such as tailoring leases to allow for this statutory disclosure and by seeking the cooperation of tenants.²²⁰

A mandatory energy rating disclosure law should provide for a clear and accessible message to the consumer, and ideally would post the ratings on a public website.²²¹ AB 1103 does not provide for publishing of energy ratings to a public website, as legislation from New York City and Washington, D.C. require.²²² Incorporating this requirement into future legislation would promote transparency, better inform the consumer, and heighten the market pressure for compliance and higher ratings for buildings.

Next, there must be strong enforcement of the legislation's provisions.²²³ However, this may be one of the largest pitfalls of AB 1103. Nowhere in the legislation does it provide for penalties, fees, or any other method of

²¹² STERN, *supra* note 170, at 2.

²¹³ *Id.* at 10.

²¹⁴ CAL. PUB. RES. CODE § 25402.10(d)(1) (West 2011).

²¹⁵ See *Portfolio Manager Overview*, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager (last visited Apr. 6, 2012).

²¹⁶ CAL. PUB. RES. CODE § 25402.10 (West 2011).

²¹⁷ CAL. PUB. RES. CODE § 25402.10(c) (West 2011).

²¹⁸ Joe Derhake, *Energy Disclosure for Commercial Properties*, CAL. LAWYER (Oct., 2010), <http://www.callawyer.com/common/CLprint.cfm?eid=911885&evid=1>; Kane, *supra* note 23, at 14 (owners with sub-metered multi-tenant buildings may not legally demand access to monthly utility bills).

²¹⁹ Gina Elliott, *Energy Reporting; It Was Only a Matter of Time*, AUTOMATEDBUILDINGS.COM (Nov., 2009), <http://www.automatedbuildings.com/news/nov09/articles/smartbldgs/091029124404smartbldgs.htm>.

²²⁰ See Derhake, *supra* note 218.

²²¹ Dunsky, *supra* note 46, at 28.

²²² See N.Y.C., ADMIN. CODE ch. 3, title 28; 2008 D.C. Legis. Serv. 17-250 (West).

²²³ Burr, *supra* note 1.

enforcement.²²⁴ Without proper enforcement, AB 1103 relies solely on market forces and the good will of owners to comply with its requirements.²²⁵ In the absence of enforcement measures, compliance among commercial property owners may drop, and the rating systems may become unfamiliar to consumers and soften its potential impact on the market.

Moreover, such legislation should require timely and early disclosure.²²⁶ Disclosure must occur before or during the early stages of a transaction in order for the consumer to be properly informed of the building's energy performance and allow comparison shopping based on this factor.²²⁷ While AB 1103 mandates disclosure of the energy rating of a building when the whole building is sold, financed, or leased, it is silent on the timing of such disclosure.²²⁸ Early disclosure in the transactional process would allow for a well-informed consumer that could easily demand higher efficiency buildings.²²⁹ A consumer may also opt to learn of the energy efficiency of a building early in the transaction, as the availability of "green" financing becomes increasingly common.²³⁰ On the other hand, early disclosure may impede commitment to the transaction and may negatively impact the marketability of the building.²³¹ In addition, AB 1103 is silent on how the energy rating is disclosed to a prospective buyer, lessee, or financier.²³²

The market impact of these energy ratings is uncertain at this time.²³³ Additionally, it remains unclear if there is any liability on the owner's part if such disclosures are not made.²³⁴ While AB 1103 sets out disclosure as an affirmative obligation of the owner and/or his agent, it also states that it does not otherwise increase or decrease the legal responsibilities of the owner.²³⁵

Additionally, energy rating disclosure legislation should link ratings with active ways to improve energy efficiency.²³⁶ However, the Energy Star rating system does not itself produce suggested energy upgrades or retrofits to commercial property owners based on their rating.²³⁷ Despite these issues, owners have some alternatives. Moreover, they may hire an energy engineer to do an energy audit of their property to identify possible areas of improvement;²³⁸ however, this would come at the owner's expense and initiative. Alternatively, an owner may implement the existing LEED rating system in tandem with the Energy

²²⁴ CAL. PUB. RES. CODE § 25402.10 (West 2011).

²²⁵ See 2007 Cal. Legis. Serv. 533 § 1(b) (West).

²²⁶ Burr, *supra* note 1.

²²⁷ *Id.*

²²⁸ See Hoch, *supra* note 31, at 1.

²²⁹ *Id.*

²³⁰ *Id.*

²³¹ *Id.*

²³² *Id.*

²³³ *Id.*

²³⁴ *Id.*

²³⁵ CAL. PUB. RES. CODE § 25402.10(e) (West 2011).

²³⁶ Burr, *supra* note 1.

²³⁷ *The ENERGY STAR for Buildings & Manufacturing Plants*, ENERGY STAR, http://www.energystar.gov/index.cfm?c=business.bus_bldgs (last visited Apr. 6, 2012).

²³⁸ See Kroecker, *supra* note 36.

Star rating.²³⁹ The new EBOM rating system for LEED incorporates Energy Star data, and also produces a list of suggested and cost-effective energy upgrades.²⁴⁰ However, this ability to suggest methods of energy efficiency improvement should be incorporated into the Energy Star system to allow for owners complying with AB 1103 to easily identify ways to improve their score. Furthermore, AB 1103 makes no provision for the government to only lease buildings with a minimum energy rating, nor does it mandate audits or upgrades for government leased buildings, so it will not leverage government power to realize its objectives.²⁴¹ In this sense, the California legislature may have missed an opportunity to create a greater demand for more efficient buildings, thereby accelerating market pressure on owners to increase their building's efficiency.

Furthermore, mandated energy rating disclosure should be phased in over a number of years to allow the market to adjust to ratings, to allow owners to make improvements to their buildings, and to reduce compliance issues.²⁴² AB 531 did just that, allowing the California Energy Commission to set a timetable for implementation of AB 1103.²⁴³ Starting July 1, 2012, and ending July 1, 2013, buildings will be required to disclose energy ratings, starting with the largest buildings first.²⁴⁴ As of July 1, 2012,²⁴⁵ commercial buildings greater than 50,000 square feet are required to comply with AB 1103's disclosure mandates.²⁴⁶ Starting January 1, 2013, commercial buildings between 5,000 and 10,000 square feet are required to comply.²⁴⁷ As of July 1, 2013, all commercial buildings between 5,000 and 10,000 square feet are required to comply with the disclosure requirements.²⁴⁸

Finally, an effective energy rating program should report the results to local government.²⁴⁹ This allows governments to tailor future energy policies in reaction to emerging trends in reported energy ratings.²⁵⁰ It would also allow for easy enforcement of energy related building codes.²⁵¹ However, AB 1103 makes no express provision for the reporting of the energy ratings of commercial buildings to local or state governments.²⁵² Future legislation could simply make the ratings data from Portfolio Manager accessible to the government, allowing them to quickly access the information and spot energy usage trends. In addition,

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ CAL. PUB. RES. CODE § 25402.10 (West 2011).

²⁴² See *Empowering the Market*, *supra* note 91, at 8-50.

²⁴³ See 2009 Cal. Legis. Serv. 323 § 1 (West).

²⁴⁴ *Id.*

²⁴⁵ THE CAL. ENERGY COMM'N, <http://www.energy.ca.gov/ab1103/> (last visited Apr. 6, 2012). "The revised draft regulations required the initial compliance to begin on July 1, 2012. However, new proposed regulations will postpone the initial compliance date until January 1, 2013." *Id.*

²⁴⁶ See *id.* at 3.

²⁴⁷ See *id.*

²⁴⁸ See *id.*

²⁴⁹ See Burr, *supra* note 1, at 5.

²⁵⁰ See *id.*

²⁵¹ See *id.*

²⁵² CAL. PUB. RES. CODE § 25402.10 (West 2011).

should reporting of ratings to a publicly accessible website be mandated in the future, the government would not need any express authorization to access this public information in order to inform its policy making decisions.

AB 1103 addresses many of the hallmark elements that an effective mandatory energy rating bill should encompass. This legislation employs a proven, recognizable, and trustworthy rating system. Issues of privacy are minimized, yet not eliminated, by the use of a secure, online database administered by the EPA. However, many issues remain unaddressed. The lack of disclosure to the public, as well as government agencies, may diminish the transparency of the program and hamper the crafting of future legislation. Moreover, the fact that owners are required to manually gather some information, and that they are not compelled to action by stringent enforcement mechanisms, may hinder compliance with the legislation.

V. IMPACT

A. The Real Estate Industry's Response to Energy Disclosure Law

The emergence of energy disclosure throughout the nation has caused commercial property owners, and others involved in the industry, to take notice of issues involving energy usage.²⁵³ From a regulatory perspective, understanding these issues would allow owners to comply with the often complex regulations imposed upon them.²⁵⁴ From a business perspective, such mandated energy disclosures may have a profound impact on the commercial real estate market.²⁵⁵ These impacts include: 1) the possibility that buildings with lower energy ratings may decrease in value as an informed tenant pool and potential purchasers seek “greener” buildings; 2) buildings with lower ratings may see a diminished tenant pool and lower rents as tenants factor in energy costs in their triple-net leases; 3) with pro forma cash flow required for financing, less efficient buildings with potentially lower rents from tenants may have a more difficult time obtaining loans; and 4) new legislation may require capital improvements to the property such as energy retrofits.²⁵⁶

In response to such a trend in legislation, commercial purchasers have begun to demand a pre-purchase property condition assessment to assess the building's energy efficiency.²⁵⁷ However, as the industry lacks a defined standard for such reporting, such diligence is still problematic.²⁵⁸ Partly in response to this concern, the industry has recently started to push for an industry standard for energy

²⁵³ Anthony J. Buonicore & Andrew Burr, *Emerging Building Energy Performance Regulations and Industry's Response*, BUILDING ENERGY PERFORMANCE NEWS (Dec. 20, 2010), http://srsweb.ei3.com/uploads/Whitepaper_BEPN_Bldg_Energy_Regs_FINAL_12-17-10.pdf.

²⁵⁴ *See id.* at 4.

²⁵⁵ *See id.*

²⁵⁶ *See id.*

²⁵⁷ *See id.*

²⁵⁸ *See id.*

ratings.²⁵⁹ The American Society for Testing and Materials International (ASTM) established a Building Energy Performance Assessment Task Group comprised of over 200 industry professionals.²⁶⁰ The result of this task group was the Building Energy Performance Assessment Standard (ASTM E2797-11).²⁶¹ This has standardized such factors as the specific time frame over which usage is measured, how it is compiled, how the upper and lower ranges for a building should be defined, what energy metric should be employed, how normalization parameters are to be implemented, and how the most representative usage value for a building should be defined.²⁶²

Due to the wide variety of “green” entities that exist throughout the United States that employ their own standards, such as the EPA, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Capital Markets Partnership, and United States Green Building Council, it was decided that the task force would not create a standard rating solely aimed at benchmarking.²⁶³ However, the standard has been designed such that it can easily be integrated into benchmarking standards such as the EPA’s Energy Star Program.²⁶⁴ This standard is expected to become the preferred methodology for building owners to ensure compliance with energy disclosure legislation, as well as the preferred vehicle for due diligence of prospective purchasers seeking to establish the energy efficiency of a target building.²⁶⁵

B. Economic Impact

Due to the fact that most mandatory energy rating disclosure policies are in their infancy, there exists little reliable statistical data that can attest to their market impact. However, the impact of the of the EPA’s Energy Star Program, the program implemented by AB 1103 as well as the vast majority of similar legislation, has been studied. While these studies have only been able to examine the voluntary implementation of this rating system, it is hoped that these results will hold true for mandatory programs.

²⁵⁹ *See id.*

²⁶⁰ *See id.*

²⁶¹ *See id.* at 4. The stated objectives of ASTM E2797-11 are to:

(1) define a commercially useful practice for collecting, compiling, and analyzing building energy performance information associated with a building involved in commercial real estate transaction; (2) facilitate consistency in the collection, compilation, analysis, and reporting of building energy performance information as may be required under building labeling, disclosure, or mandatory auditing regulations; (3) supplement as needed a property condition assessment conducted in accordance with Guide E2018 or an environmental site assessment conducted in accordance with Practice E1527; (4) provide that the process for building energy performance data collection, compilation, analysis, and reporting is consistent, transparent, practical, and reasonable; and (5) provide an industry standard.

ASTM INTERNATIONAL, <http://www.astm.org/Standards/E2797.htm> (last visited Apr. 6, 2012).

²⁶² Buonicore, *supra* note 253, at 5.

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ *Id.*

While there have been a number of studies on the impact of the Energy Star Program, the most predominant of these is a study conducted by Fuerst and McAllister in 2009.²⁶⁶ It not only studied the economic impact of Energy Star rated buildings, but also compared the results to that of a highly regarded and implemented energy rating system—LEED.²⁶⁷ Using a sample of 834 Energy Star certified buildings, 197 LEED buildings, and nearly 15,000 buildings in the control group, Fuerst and McAllister identified a six percent rental premium for Energy Star and LEED certified buildings.²⁶⁸ Going further, it used a sample of 559 Energy Star and 127 LEED certified buildings to study trends in prices associated with certification.²⁶⁹ It found a seventeen percent price premium for Energy Star certified buildings, and no significant price premium for LEED certified buildings when compared to a control group with no certification.²⁷⁰ It also concluded that, for existing buildings, the Energy Star Program provides a more widespread scheme for eco-certification, because Energy Star certified buildings greatly outnumber those certified under the LEED program for existing buildings.²⁷¹ However, the study also found that office properties tend to dominate both the LEED and Energy Star programs in terms of number of buildings and square footage.²⁷² Because the study examined these programs while they were voluntary, this makeup of property types may change with mandatory reporting, which may, in turn, affect results.

The study concludes that, regardless of the energy rating program, there is a range of benefits for owners and occupiers of such certified buildings.²⁷³ There may be reduced costs of operating certified buildings such as energy and other utility savings, improved productivity, and other advantages linked to marketing and image benefits.²⁷⁴ Investors may also benefit from reduced holding costs due to lower vacancy rates and higher tenant retention, reduced operational costs because of utility savings, reduced depreciation due to capital improvements, and reduced regulatory risks.²⁷⁵ Furthermore, surveys of “willingness-to-pay” have found that tenants are prepared to compensate owners for the costs of certified buildings via higher rents.²⁷⁶

²⁶⁶ See Franz Fuerst, Pat McAllister & Karen Smith, *Eco-Labeling, Rents, Sales Prices and Occupancy Rates: Do LEED and Energy Star Labeled Offices Obtain Multiple Premiums?* 3, 1 (Henley Bus. Sch., Reading Univ., Working Paper No. 2010-01, 2010). They employed a hedonic model that measured price differences between Energy Star certified buildings and randomly selected non-certified buildings in the same submarket areas. *Id.* at 1. They did this while controlling for differences in lease contract, age, height, quality, and sub-market. *Id.* at 8.

²⁶⁷ *Id.* at 3.

²⁶⁸ *Id.* at 3–4.

²⁶⁹ *Id.*

²⁷⁰ *Id.* at 3.

²⁷¹ *Id.* at 6; see also EICHHOLTZ, *supra* note 158. Their study found a price and rental premium for Energy Star rated buildings, but no such premium for LEED rated buildings. *Id.* at 18.

²⁷² *Id.* at 15.

²⁷³ *Id.* at 8–9.

²⁷⁴ *Id.* at 6–7. Increased productivity is hypothesized to be due to reduced staff turnover and absenteeism. *Id.*

²⁷⁵ *Id.* at 6–7.

²⁷⁶ See GVA GRIMLEY, *Research Sustainability Towards Sustainable Offices*, GVA GRIMLEY

While studies may show that there is both a rent and sales premium for buildings that comply with the Energy Star Program, the cost of compliance will be a concern of both building owners and developers. There have been a number of studies of the construction cost premium associated with achieving certification.²⁷⁷ These studies suggest small construction cost premiums of around two percent on average to comply with energy rating programs.²⁷⁸

VI. CONCLUSION

While Europe and other foreign countries have pioneered the use of rating and disclosure laws to curb energy consumption, California has emerged as a leader in such policies in the United States. However, there are still many issues that California has yet to address. While the full impact of such laws in the United States is largely unknown, lessons learned from more mature policies should be adopted into future legislation. California's implementation of the trusted and well-recognized Energy Star Program will allow consumers to easily compare the energy efficiency of similar buildings.²⁷⁹ However, the lack of disclosure of energy data to a public website may hamper widespread knowledge of such a program.

Many potential issues still remain in California's AB 1103. First, there is a potential legal issue with owners collecting and authorizing the release of their tenants' data.²⁸⁰ Second, the policy is silent on methods of enforcement, which has been shown to contribute to a lack of compliance.²⁸¹ The policy is also silent on the timing of the disclosure of a building's energy rating to a party to the transaction, and what kind of liability is incurred if the owner fails to disclose such information.²⁸² Third, the policy does not require reporting of ratings to local government, which may make formulation of future energy efficiency policy less responsive to the realities of the commercial building market.²⁸³

Despite these problems, the commercial building community appears to have embraced the need for an energy rating system.²⁸⁴ Going forward, the California legislature should integrate lessons learned from previous energy disclosure laws,

(Spring, 2007) http://www.gvagrimsley.co.uk/PreBuilt/Research%20web/Occasional%20Bulletins/Towards_Sustainable_Offices_Apr07.pdf.

²⁷⁷ See, e.g., Lisa Matthiessen & Peter Morris, *The Cost of Green Revisited, Reexamining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption*, DAVIS LANGDON (July, 2007), <http://www.davislangdon.com/upload/images/publications/USA/The%20Cost%20of%20Green%20Revisited.pdf>.

²⁷⁸ *Id.* Investigating the cost premium in more depth, Matthiessen and Morris studied 83 building projects with a primary goal of LEED certification and 138 similar building projects without such a goal. *Id.* Confirming the findings of earlier studies, they found no significant difference in average costs for building projects with a primary goal of LEED certification as compared to non-certified buildings. *Id.*

²⁷⁹ See, e.g., *supra* notes 12–21 and accompanying text.

²⁸⁰ See *supra* notes 217–20 and accompanying text.

²⁸¹ See *supra* notes 223–25 and accompanying text.

²⁸² See *supra* notes 226–31 and accompanying text.

²⁸³ See *supra* notes 249–52 and accompanying text.

²⁸⁴ See *supra* notes 253–65 and accompanying text.

as well as remain sensitive to feedback from owners as to liability pitfalls, vagueness in requirements, and difficulties in practical application.