STATE OF CALIFORNIA

State Energy Resources Conservation
and Development Commission

Athans Petition for Rulemaking to Delay Effective Date of the 2013 Nonresidential Building Standards, California Code of Regulations, title 24, parts 1 and 6	**Docket No. 13-BSTD-02** **Order No.**

[PROPOSED] ORDER OF THE CALIFORNIA ENERGY COMMISSION DENYING PETITION FOR RULEMAKING

I. INTRODUCTION

Mr. George Athans, Vice President of Athans Enterprises, Inc., has petitioned for a rulemaking proceeding to stay for three, or at least two, years the implementation of the 2013 Building Energy Efficiency Standards as they relate to new nonresidential buildings. For the reasons explained below, we deny the petition.

For additional information regarding this matter, please contact Mr. Pippin C. Brehler, at (916) 654-5056, or Pippin.Brehler@energy.ca.gov. Interested persons have a right to obtain a copy of the petition and other related documents from the Energy Commission.[1]

II. PROCEDURAL HISTORY

The Energy Commission is statutorily directed to adopt cost-effective building design and construction standards that increase energy and water conservation and efficiency.[2] After a lengthy and complex public process, the Energy Commission adopted the 2013 update to the Building Energy Efficiency Standards, located in parts 1 and 6 of title 24 of the California Code of Regulations ("Standards"). These regulations were subsequently approved by the Building Standards Commission, and will become effective on January 1, 2014.

On June 17, 2013, the Energy Commission received a request from Mr. George Athans, Vice President of Athans Enterprises, Inc., for a three-year moratorium on the 2013 Standards. On June 27, 2013, Energy Commission staff sent Mr. Athans a letter informing him that because these Standards are regulations that were duly adopted by the Commission, Mr. Athans' request is, in substance, for a petition for a rulemaking

[1] Gov. Code § 11340.7.

[2] Pub. Res, Code § 25402.

proceeding to amend the regulations to change their effective date. Mr. Athans confirmed he wanted to file such a petition, and on July 8, 2013, the Energy Commission received a petition from Mr. Athans, under section 1221 of title 20 of the California Code of Regulations. Mr. Athans submitted additional information on July 18, 2013 to complete his petition and to clarify that he sought a three-year, or at least a two-year, stay of the nonresidential portions of the Standards for new buildings, so that the Standards would not take effective until January 1, 2017, or, in the alternative, January 1, 2016. Mr. Athans supplemented this information on July 22, 2013 with a report from the Rand Corporation on new, nonresidential construction permit valuations in California for 2000-2010.

On July 25, 2013, the Executive Director certified Mr. Athans' petition as complete and scheduled the petition to be heard at the next Commission business meeting.[3]

III. ANALYSIS

Mr. Athans presents seven grounds for his request to change the effective date of the Standards which are adopted under the authority of Public Resources Code, Section 25402. In considering the merits of the petition, Energy Commission staff analyzed the information submitted by Mr. Athans, gathered additional information, and reviewed the record of the Standards.

A. Impact on the Construction Industry

The first three, and the last, of the grounds presented for a stay contend that the non-residential building industry, particularly for new construction, remains depressed and suffers from high unemployment following the recession of 2009. (See Athans Petition, §§ 3.1-3.3, 3.7.) According to Mr. Athans, the Standards will unduly hinder economic recovery and growth in this sector.

The Energy Commission considered the economy and the impact of the 2013 Building Energy Efficiency Standards on building construction during the rulemaking.[4] In response to stakeholder concerns, the Commission revised the proposed Standards to lessen the economic impact on builders while continuing to realize significant energy savings as compared to existing law and practices.[5] Moreover, the Commission analyzed the economic impact on the nonresidential building sector in its Economic and Fiscal Impact Statement and the accompanying Appendix.[6] That analysis explains that for a typical 15,000 square foot nonresidential building, the additional construction costs attributed to

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[3] Cal. Code Regs., tit. 20, § 1221.

[4] Cal. Code Regs., tit. 24, part 1, § 1-324(d).

[5] See Initial Statement of Reasons for the 2013 Building Energy Efficiency Standards, at pp. 39-42 (summarizing the changes made to the Standards even before they were initially proposed), available at: http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2012-02-24_ISOR_2013_Building_Efficiency_Standards.pdf.

[6] , Economic and Fiscal Impact Statement (Std. 399), Initial costs for a small business and initial costs for a typical business, Appendix pp. 1-2, available at: http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/final_rulemaking_documents/04_Signed_399.pdf.

the 2013 Standards is about $3 per square foot, or $45,000 for the entire building. Assuming nonresidential construction costs average $150 per square foot, the Commission determined that the additional costs from the proposed Standards would only increase the cost of the building by about 1.8%.

The overall benefit of the Standards in expected energy savings over a 30-year design life for a nonresidential building is expected to be about 30% over the currently-effective 2008 Standards, and is expected to outweigh the costs by a ratio of at least 1.28 to 1. Accordingly, in adopting the Standards, the Energy Commission found them to be cost-effective. In addition, the 2013 Standards are not expected to eliminate jobs. The Standards may create new jobs to perform the compliance procedures required and save money through decreased energy costs.[7]

In support of his petition, Mr. Athans submitted data from the Rand Corporation of new, nonresidential construction permit valuations in all California cities and counties, for the decade 2000-2010. The data shows that total statewide permit nonresidential valuation, in millions, peaked at $22,544 in 2007, and fell to $11,196 in 2010. The Rand data shows that nonresidential construction activity fell from 2000 through 2003, rose from 2003 through 2007, then dipped in 2008 and fell in 2009 and 2010. In comparison, the 2001 Building Energy Efficiency Standards became effective June 1, 2001. The 2005 Standards became effective October 1, 2005, with revisions effective September 11, 2006. The next edition of the Standards, adopted in 2008, did not become effective until January 1, 2010. Given this, we are unable to discern any correlation, much less causation, between the Building Energy Efficiency Standards and an increase or decrease in nonresidential construction activity.

Further, the economy has improved since 2010, when California's unemployment rate hit a high of 12.4%. In contrast, the unemployment rate when the Energy Commission adopted the 2013 Standards was 10.7%, and in June 2013, the rate was 8.5%.[8]

The record of the 2013 Building Energy Efficiency Standards rulemaking proceeding, as well as the information submitted in support of this petition, does not lead us to conclude that an additional initial cost of 1.8%, which will be recouped through decreased energy costs, will significantly impact the rate of nonresidential building construction in this state. On the other hand, delaying the effective date of the Standards will forego the significant energy savings expected from buildings constructed in compliance with the Standards, and lead to increased energy consumption and associated environmental impacts that will continue over the lives of these buildings. Therefore, we decline to grant the petition on these grounds.

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[7] See also Notice of Proposed Action, February 7, 2012, pp. 27-28, available at: http://www.energy.ca.gov/title24/2013standards/rulemaking/notices/2012-02-07_NOPA_2013_Building_Efficiency_Standards.pdf.

[8] See Employment Development Department News Release No. 13-32, July 18, 2013, available at: http://www.edd.ca.gov/about_edd/News_Releases.htm.

B. Cost-Effectiveness of the Standards

In support of his petition for a moratorium, Mr. Athans also asserts that the Standards are not cost-effective because the Energy Commission's supporting analysis is based on manufacturers' representations and fails to consider "other related costs and requirements in implementing these proposed new standards." (Athans Petition, § 3.4.)

Contrary to Mr. Athans' assertion, manufacturers' representations are not the sole basis for the costs of measures in the Standards.[9] Additionally, it is unclear what "other related costs" were excluded from consideration.

Before it began preparing the text of the proposed Standards for the 2013 update, the Commission updated and published a "Life-Cycle Methodology" and a "Time Dependent Valuation of Energy for Developing Building Efficiency Standards."[10] The Life-Cycle Methodology uses a net-present-value approach to consider the time-dependent value of electricity and natural gas over the expected life of each proposed building energy efficiency measure (either 15 or 30 years, depending on the measure) in each of the sixteen designated California climate zones. Accepted discount rates are used to calculate the present worth of the future costs and benefits of each measure. The present value of the costs is compared against the present value of the benefits. For a measure to be adopted into the Standards, the present value of the savings (benefits) must outweigh the present value of the costs.

The following costs and savings were considered in the Life-Cycle Methodology for the 2013 Standards:

1. First cost of the measure, including labor and construction costs
2. Energy savings over the life of the measure
3. Operation and maintenance cost of the measure
4. Replacement costs of the measure

The Commission used a variety of techniques to obtain the first costs for a measure, including obtaining quotes from manufacturers, wholesalers, and distributors, reviewing published data from retailers' websites, and using the construction industry estimating resource RS Means Catalogue. The measure cost that is used in the life-cycle analysis is the "final" cost to the building owner, and includes all markups and profits that are expected to be applied to the product through the distribution chain.

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[9] See Cal. Code Regs., tit. 24, part 1, § 1-324(b).

[10] See http://www.energy.ca.gov/title24/2013standards/prerulemaking/documents/general_cec_documents/2011-01-14_LCC_Methodology_2013.pdf; http://www.energy.ca.gov/title24/2013standards/prerulemaking/documents/general_cec_documents/Title24_2013_TDV_Methodology_Report_23Feb2011.pdf.

The life-cycle costs were presented at public workshops held before the rulemaking proceeding, and were revised in response to public comment. The results of this research and discussions were presented in the Codes and Standards Enhancement Initiative (CASE) reports that were among the "documents relied upon" for the Standards.[11] For example, the "Nonresidential & High-Rise Residential Fenestration Requirements" CASE report lays out the cost basis for the fenestration improvements under the 2013 Standards.[12]

Mr. Athans has not presented any evidence or levied any criticism of these methodologies or costs, but merely asserts, without support, that the standards were not cost-effective. As explained above, the Standards were clearly cost-effective, based on a wide range of evidence. Nothing presented in the petition changes our conclusion that the Standards are cost-effective. Therefore, we decline to grant the petition on this ground.

C. Construction Industry's Awareness

Mr. Athans' fifth contention is that the building construction industry is not fully aware of the additional costs and time necessary to design and construct new buildings that comply with the Standards. (Athans Petition, § 3.5.)

We recognize that with each update, the Building Energy Efficiency Standards take a significant step forward in sophistication. The Commission has taken steps to help ensure that training is made available to building owners, developers, contractors, and architects to help these groups to understand the 2013 Standards. In cooperation with the Commission, the investor-owned utilities, such as Southern California Edison, and organizations such as the California Building Officials and the International Code Council, provide training throughout California on the 2013 Standards. The Energy Commission provides a free service known as the Energy Standards Hotline to answer questions on the current and upcoming Standards. The Commission is also developing informational materials to help explain the 2013 Standards.

Therefore, as the Commission believes the construction industry to be aware of the Standards and has taken several steps to ensure that the industry is able to comply with them, we decline to grant the petition on this ground.

D. Effects on Building Design

Mr. Athans' sixth contention is that the Standards will increase building space requirements, thereby increasing construction costs and making building design more difficult. (Athans Petition, § 3.6.) This contention presumes that the 2013 Standards will

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[11] See: http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/ISOR_Documents_Relied_Upon.pdf.

[12] See: http://www.energy.ca.gov/title24/2013standards/prerulemaking/documents/current/Reports/Nonresidential/Envelope/2013_CASE_NR_Fenestration_Reqs_Sept_2011.pdf.

require additional equipment in buildings that would not have been required before, or alternatively, that energy-efficient products take up more space than less-efficient equipment. The petition does not, however, elaborate upon what equipment may fall into these categories or what provisions in the 2013 Standards would require additional space.

The 2013 Standards do not require additional equipment that would not otherwise be required in a building, and the Standards do not significantly impact the conditioned volume of the building. Additionally, nothing in the rulemaking record for the 2013 Standards suggests that energy-efficient equipment requires more space than standard equipment. For example, efficient lighting equipment is the same shape and size as conventional equipment. The same is true for energy-saving controls for lighting and heating, ventilating, and air-conditioning systems, fenestration products, chillers, water heating equipment, and other products. At most, improved insulation requirements may increase the thickness of the walls, which may cause a slight reduction in the conditioned volume of a building relative to a building of the same external dimensions built to the requirements of the 2008 Standards. But no evidence has been presented that this will necessarily occur, or that the impact will be significant. Therefore, we find no evidence to suggest that the 2013 Standards will increase building space requirements, that increasing building space requirements would significantly increase costs, or that the Standards are not cost-effective. We decline to grant the petition on this ground.

IV. CONCLUSION

The 2013 Building Energy Efficiency Standards fulfill the Energy Commission's statutory mandate to adopt cost-effective energy and water efficiency standards for buildings. They are a foundational element in implementing California's energy policies, including having a reliable, economic, and environmentally-sound energy supply, and zero net energy new nonresidential buildings by 2030.[13] These Standards protect consumers from unnecessary energy costs, conserve natural resources, minimize environmental degradation, and ensure a safe, reliable, and affordable energy supply. Their importance is brought into even greater relief by the onset of climate change.

Delaying implementation of these Standards would result in greater energy use and environmental degradation than necessary, at significant cost to consumers, natural resources, and the reliability of our energy supply, over the entire lives of the buildings that will be constructed to these standards over the next two or three years. Delaying them would compromise the Energy Commission's ability to fulfill its statutory mandate to adopt these standards and establish sound energy policy.[14] The Standards are cost-effective and have not been shown to hinder economic growth. The evidence presented does not change these conclusions; indeed, independent inquiry affirms them.

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[13] Pub. Res. Code §§ 25001, 25300(a)-(b); see also Notice of Proposed Action, pp. 4-5, citing 2008 Energy Action Plan; 2007 California Energy Commission Integrated Energy Policy Report; 2008 California Public Utilities Commission Long-Term Energy Efficiency Strategic Plan.

[14] See Cal. Code Regs., tit. 24, part 1, § 1-324(e).

To ensure that our state's policy goals are met, and given the lack of evidence to support delaying the effective date of the Standards, we deny the petition.

The California Energy Commission directs the Executive Director to take, on behalf of the Commission, all actions reasonably necessary to perfect this decision, including but not limited to preparing and filing this Order and all appropriate documents with the Building Standards Commission and the Office of Administrative Law for publication in the California Regulatory Notice Register per Government Code section 11340.7.

Date: August 27, 2013

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on August 27, 2013.

AYE:
NAY:
ABSENT:
ABSTAIN:

Harriet Kallemeyn,
Secretariat