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INITIAL STATEMENT OF REASONS

Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609
California Energy Commission
Commercial and Industrial Air Compressors
Docket No. 18-AAER-05
Notice Published on November 16, 2018

INTRODUCTION

The California Energy Commission (Energy Commission) proposes to adopt regulations for commercial and industrial air compressors (air compressors) after considering all comments, objections, and recommendations regarding the proposed action.

PROBLEM STATEMENT

The Warren-Alquist Act establishes the Energy Commission as California's primary energy policy and planning agency. Sections 25213, 25218(e), and 25402(c) of the Public Resources Code mandate that the Energy Commission adopt rules and regulations, as necessary, to reduce the inefficient consumption of energy and water by prescribing efficiency standards and other cost-effective measures for appliances whose use requires a significant amount of energy or water statewide.

One of the ways the Energy Commission satisfies this requirement is through the Appliance Efficiency Regulations (California Code of Regulations, title 20, sections 1601-1609), which contain definitions, test procedures, efficiency standards, and marking and certification requirements for state and federally regulated appliances. Further, the regulations require that appliance manufacturers certify to the Energy Commission that their products meet all applicable state and federal appliance efficiency regulations before their products can be included in the Energy Commission's database of appliances approved to be sold or offered for sale within California.

Appliance energy efficiency is identified as a key to achieving the greenhouse gas emission reduction goals of Assembly Bill 32 (Nunez, Chapter 488, Statutes of 2006). Senate Bill 350 (de León, Chapter 547, Statutes of 2015), established the Clean Energy and Pollution Reduction Act of 2015, requiring the Energy Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a doubling of energy savings from buildings and retail end uses by 2030.

Therefore, in compliance with statute, the Energy Commission has prepared the proposed regulations to provide definitions, test procedures, reporting requirements,

and efficiency standards for air compressors manufactured on or after January 1, 2022, and sold or offered for sale in California.
Air compressors are used in a variety of industries and applications, have an assortment of sizes and types, and can be found at most industrial facilities. While electricity consumption for air compressors is less than other systems found in buildings, such as lighting or heating, ventilation, and air-conditioning (HVAC), it still represents a significant opportunity to increase efficiency and reduce electricity consumption. This is especially true since there are currently no federal or state efficiency standards for air compressors.

No federal standards currently exist for air compressors. The United States Department of Energy (DOE) considered energy conservation standards for air compressors in a rulemaking in 2016, but to date has not published a final rule in the Federal Register. However, the DOE did publish a final test procedure for air compressors in the Federal Register that became effective January 4, 2017, and required for compliance on July 3, 2017, making it the applicable test procedure for all air compressors manufactured in or imported into the United States. The Energy Commission incorporated this test procedure into its regulations as part of a previous rulemaking (docket #18-AAER-10).

The Energy Commission used information from the DOE rulemaking to support the proposed regulation.

PURPOSE

The purpose of the regulations is to carry out the Energy Commission's statutory mandate by providing statewide standards for air compressors in the Appliance Efficiency Regulations. The proposed regulations for air compressors establish a new efficiency standard for rotary, lubricated air compressors that operate at a fixed or variable speed and that use air or liquid as a cooling agent. The regulations would affect rotary air compressors driven by a brushless electric motor greater than or equal to 10 horsepower but less than or equal to 200 horsepower with a full-load operating pressure greater than or equal to 75 pounds per square inch gauge and less than 200 pounds per square inch gauge.

Federally regulated air compressors were added under the scope of the Appliance Efficiency Regulations in a previous rulemaking along with definitions and the federal test method. These regulations are proposing to modify the scope to include state-regulated compressors (as there are no federally regulated air compressors), and to provide additional definitions and state efficiency standards. The new regulations also introduce new certification and reporting requirements to the California Energy Commission's Modernized Appliance Efficiency Database System (MAEDbS) and will require air compressors to be marked with the manufacturer name, model number, and date of manufacture.

BENEFITS

The overall benefit of this rulemaking is to increase energy efficiency savings in the state by establishing statewide energy efficiency standards for air compressors. The specific benefits of the proposed regulations would be cost savings to the consumer, lower statewide energy use, and lower greenhouse gas and criteria pollutant emissions from power plants as a result of lower energy use. Under the proposed regulation, Californians will have a first year energy savings of around 25 GWh with an approximate energy savings after full stock turnover (14 years) of 322 GWh/yr. The energy savings is equivalent to a monetary statewide benefit of around $4 million in savings for the first year and an estimated $49 million annually after full stock turnover.

The proposed regulations will also have a significant positive impact on the environment through avoided greenhouse gas emissions from reduced electric power demand primarily from natural gas power plants. Therefore, the Energy Commission could not identify any adverse environmental impacts associated with the proposed efficiency standards.

STATEMENT OF SPECIFIC PURPOSE AND NECESSITY

SECTION 1601. SCOPE
SPECIFIC PURPOSE

The specific purpose is to add state-regulated compressors (as defined) under the scope of the Energy Commission's Appliance Efficiency Regulations, and to remove a reference to federally regulated air compressors.

NECESSITY

No federal standards currently exist for air compressors. The United States Department of Energy (DOE) considered energy conservation standards for air compressors in a rulemaking in 2016, but to date has not published a final rule in the Federal Register.

The Energy Commission finds it necessary to add regulations for air compressors because air compressors are responsible for roughly one percent of all commercial electricity consumption in California. Air compressors are used in a variety of industries and applications, have an assortment of sizes and types, and can be found at most industrial facilities. While electricity consumption for air compressors is less than other systems, such as lighting or heating, ventilation, and air-conditioning (HVAC), it still represents a significant opportunity to increase efficiency and reduce electricity

consumption. This is especially true since there are currently no federal or state efficiency standards for air compressors.

The scope previously covered air compressors that were federally regulated commercial and industrial equipment. Because such equipment must have both a federal test procedure and a federal standard to be "federally regulated," and because no such federal standard has been published, the term meant that air compressors were not subject to any testing or efficiency requirements until there was a federal standard. Changing the scope to "state regulated air compressors" will bring air compressors under the scope of the appliance efficiency regulations with a federal test procedure and a state efficiency standard.

The Energy Commission used information from the DOE rulemaking to support the proposed regulation.

SECTION 1602. DEFINITIONS
SPECIFIC PURPOSE

The specific purpose is to add definitions for terms used in the regulations related to air compressors.

NECESSITY

The Energy Commission is proposing to adopt DOE's definitions, contained in the Code of Federal Regulations (C.F.R), for air compressor related terms (10 C.F.R. 431.432) and definitions based on industry terminology and developed with input from manufacturers and energy efficiency advocates.

These definitions are necessary to ensure that the terms used within the regulations will have clear and unambiguous meaning to readers, including the public, and particularly to the persons and organizations affected by these regulations. The definitions support the test procedure requirements, labeling requirements, certification requirements, and efficiency standards.

It's necessary to strike the definition for a "Basic model" of a federally regulated compressor as there are no federal efficiency standards for compressors. This definition was added to the regulations in anticipation of the DOE rulemaking. However, to date the DOE has not published a final rule to establish efficiency standards in the Federal Register, making it necessary to remove the reference to a federal regulation and replace it with a state regulation.

It's necessary to add a definition for a "state-regulated compressor" to specify which air compressors fall under these regulations. The proposed regulations establish a new

efficiency standard for rotary, lubricated air compressors that operate at a fixed or variable speed and use air or liquid as a cooling agent. The regulations would affect rotary air compressors driven by a brushless electric motor greater than or equal to 10 horsepower but less than or equal to 200 horsepower with a full-load operating pressure greater than or equal to 75 pounds per square inch gauge and less than 200 pounds per square inch gauge. Other types of air compressors that fall outside of this definition would not have to comply with the test procedures or proposed efficiency standards.

It's necessary to delete "distributed in commerce" and replace with "sold or offered for sale in California" throughout the definitions to be clear and specific that these regulations apply to specific air compressors sold or offered for sale only in California. Distributed in commerce is federal language indicating DOE's jurisdiction over products distributed in commerce in the United States. The Energy Commission's jurisdiction is specific to appliances sold or offered for sale in California, not distributed more broadly in the United States. Therefore, language reflecting this jurisdictional limitation is necessary in the definitions applicable to state-regulated compressors.

SECTION 1604. TEST METHODS
SPECIFIC PURPOSE

The specific purpose is to clarify and make specific the testing method for state-regulated air compressors, and when and how to apply an alternative efficiency determination method (AEDM) in lieu of testing.

NECESSITY

While no federal efficiency standards currently exist for air compressors, a final test method for air compressors was published by the DOE in the Federal Register (10 C.F.R. section 431.344 and Appendix A to Subpart T of 10 C.F.R. Part 431) and became effective January 4, 2017, with compliance required on July 3,2017, making it the applicable test procedure for all air compressors manufactured in or imported into the United States.

The Energy Commission adopted the federal test method in a previous rulemaking. However, it's necessary to update the testing method to specify that it applies to state regulated compressors and to include provisions allowing for the use of an alternate efficiency determination method (AEDM) in lieu of testing. The AEDMs are mathematical calculations, or models, that manufacturers may use to predict the energy efficiency or energy consumption characteristics of a basic model. The use of AEDMs reduces the need for physical testing and reduces the overall testing burden for manufacturers, without sacrificing the accuracy of the efficiency information reported or disclosed. AEDMs are appropriate for appliances that can rely on extrapolations to determine their efficiency, such as air compressors. The DOE adopted provisions

allowing the use of an AEDM in lieu of testing. Reducing the costs of testing results in more cost-effective regulations. While AEDMs are allowable for reporting efficiency and compliance with the standards, manufacturers are still responsible to ensure that their products meet the efficiency standards.

It's necessary to add 10 C.F.R. section 429.63 and 429.70 as the required means of calculating an AEDM if one is to be applied for consistency with DOE and within the industry. These documents are also being added to the Federal Test Methods being incorporated by reference.

Appendix A to Subpart T of 10 C.F.R, Section 431 is being added to the Federal Test Methods incorporated by reference for consistency with the language in subsection (s)(3) above where it is provided but was not added into this section.

SECTION 1605.1. FEDERAL AND STATE STANDARDS FOR FEDERALLY REGULATED APPLICANCES
SPECIFIC PURPOSE

The specific purpose is to delete the statement that "there are no standards for federally regulated compressors" and to identify the location where standards related to state-regulated air compressors can be found.

NECESSITY

The Appliance Efficiency Regulations contain mandatory requirements for both federally regulated and state-regulated appliances to provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location. Section 1605.1 contains all of the federal efficiency standards for federally regulated appliances. Section 1605.1 contains cross references to either section 1605.2 or 1605.3 if there are state standards for the appliance.

It's necessary to amend subsection (s)(7) to clarify and make specific that compressors are not federally regulated; however, there are energy efficiency standards for state-regulated air compressors and to identify where the standards can be found.

SECTION 1605.2 STATE STANDARDS FOR FEDERALLY REGULATED APPLICANCES
SPECIFIC PURPOSE

The specific purpose is to delete the statement that "there are no standards for federally regulated compressors" and to identify the location where standards related to state-regulated air compressors can be found.

NECESSITY

The Appliance Efficiency Regulations contain mandatory requirements for both federally regulated and state-regulated appliances to provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location.

It's necessary to amend subsection (s)(2) to clarify and make specific that compressors are not federally regulated; however, there are energy efficiency standards for state-regulated air compressors and to identify where the state standards can be found.

SECTION 1605.3. STATE STANDARDS FOR NON-FEDERALLY REGULATED APPLIANCES
SPECIFIC PURPOSE

The specific purpose is to delete the statement that "there are no energy efficiency standards for federally regulated compressors," and to clarify and make specific the efficiency standard criteria that must be met for state-regulated air compressors manufactured on or after January 1, 2022.

NECESSITY

The Appliance Efficiency Regulations contain mandatory requirements for both federally regulated and state-regulated appliances to provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location.

It's necessary to amend subsection (s)(2) to add the state energy efficiency standards for state-regulated air compressors and to specify when they become effective.

It's necessary to add Table S-5 to provide the energy efficiency standards for state-regulated air compressors. These equations are the DOE-recommended equations for an efficiency standard for air compressors and align with DOE's published test method to measure product efficiency in terms of package isentropic efficiency. Package isentropic efficiency is the ratio of the theoretical isentropic power required for a compression process to the actual power required for the same process. The efficiency levels resulting from these equations are cost-effective and technically feasible, and will achieve significant energy savings in the state. Higher efficiency levels may not yield as many cost savings to consumers, while lower efficiency levels would not generate sufficient energy savings to justify the costs of compliance or to meet the state's energy efficiency and greenhouse gas reduction goals.

SECTION 1606. FILING BY MANUFACTURERS; LISTING OF APPLIANCES IN

DATABASE
SPECIFIC PURPOSE

The specific purpose is remove air compressors from the list of appliances that are not required to have energy efficiency or design standards, to provide an exception for the filing of statements that are based on AEDMs, and to provide the data reporting requirements a manufacturer needs to report to the Energy Commission's Modernized Appliance Efficiency Database System (MAEDbs) to certify compliance of an air compressor.

NECESSITY

State law (Public Resources Code § 25402(c)(1)) requires manufacturers to report to the Energy Commission that their appliances comply with the applicable energy efficiency standards before they are sold or offered for sale in the state. The Appliance Efficiency Regulations require manufacturers to provide specified information for this purpose to the MAEDbS. MAEDbS is used by manufacturers and maintained by the Energy Commission to list the appliances authorized to be sold or offered for sale in California. This helps the Energy Commission and consumers verify compliance with applicable federal and state efficiency standards.

In subsection (a), compressors have been struck from the exceptions of this Article. It is necessary to strike out air compressors because this rulemaking proposes to add certification requirements for air compressors.

It is necessary to strike out portable air conditioners because there is a separate rulemaking expected to be completed in a similar timeframe that proposes to add certification requirements for portable air conditioners.

It's necessary to add Exception 1 under subsection (a)(3)(A) to clarify that the manufacturer must submit a statement specifying that the air compressor met the required test method or was rated according to the AEDM. Current regulations otherwise allow only tested data into MAEDbS, so this exception is necessary to allow the calculated efficiency from an AEDM so that all models, regardless of whether the efficiencies were tested or calculated, will appear in MAEDbS and be eligible for sale in California.

Air compressors have been added to Section S of Table X: The addition of air compressors to Table X is necessary to provide the reporting requirements for manufacturers of air compressors. It's necessary that manufacturers know the reporting requirements to certify air compressor models to the Energy Commission's appliance efficiency database to comply with regulation and be able to sell their product in California. The proposed reporting requirements are the minimum amount of information needed to verify that the product meets the standards. All of the information requested

is based on the physical characteristics of the compressor model or information resulting from the test procedure or AEDMs described in section 1604.

Subsection (a)(4)(A)4i. was added to specify that the manufacturer statement submitted with the information for air compressors specify that if the compressor efficiency was calculated through an AEDM instead of through a test, that the manufacturer complied with the applicable requirements in section 1604(s). This is necessary to provide an exception to the requirement that manufacturers test every model of appliance that is certified to the database. Because air compressor efficiencies for certain models can be extrapolated from the test of a basic model, an AEDM is an appropriate way to reduce manufacturer test burden and the costs of testing while ensuring that the efficiency information accurately reflects the actual efficiency of the product.

There are non-substantive numbering changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

SECTION 1608. COMPLIANCE, ENFORCEMENT, AND GENERAL ADMINSTRATIVE MATTERS.
SPECIFIC PURPOSE

The specific purpose is to remove compressors as an exception not required to meet specified requirements in order to be sold or offered for sale in California.

NECESSITY

In subsection (a), compressors have been struck from the exceptions of this section. It is necessary to strike out air compressors because this rulemaking proposes to add enforceable energy efficiency standards for air compressors.

It is necessary to strike out portable air conditioners because there is a separate rulemaking expected to be completed in a similar timeframe that proposes to add certification requirements for portable air conditioners.

There are non-substantive numbering changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

TECHNICAL, THEORETICAL, OR EMPIRICAL STUDIES, REPORTS, OR DOCUMENTS.

The Energy Commission relied on input from various stakeholders, subject matter experts,

and interested parties that provided information, feedback, and subject matter expertise from operational, technical, and manufacturing perspectives.

The groups and organizations that participated in the workgroup include:
Atlas Copco Compressors; Quincy Compressor; Somach Simmons & Dunn; Compressed Air Systems; Pacific Gas and Electric; San Diego Gas and Electric; Southern California Edison; SoCalGas; American Council for an Energy Efficient Economy; Appliance Standards Awareness Project; Castair; Compressed Air and Gas Institute; Ingersoll Rand; Natural Resources Defense Council; National Association of Manufacturers; Northeast Energy Efficiency partnership, and Northwest Energy Efficiency Alliance.

The documents relied upon include:

- The Technical Support Document[1]: Energy Efficiency Program for Consumer Products and Commercial and Industrial Equipment: Air Compressors. U.S. Department of Energy, December, 2016.
- Energy Conservation Program: Energy Conservation Standards for Air Compressors, Final Rule[2]. 2016-12-05.
- The Codes and Standards Enhancement (CASE) Initiative for PY 2018: Title 20 Standards Development. Analysis of Standards Proposal for Compressors. March 26, 2018.

CONSIDERATION OF REASONABLE ALTERNATIVES, INCLUDING THOSE THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

No reasonable alternatives to the proposed regulations have been proposed that would lessen any adverse impact on small business or that would be less burdensome and equally effective in achieving the purposes of the regulation in a manner that achieves the purposes of the statute being implemented.

The Energy Commission estimates annual California shipments of air compressors to be 6,000 units. The estimated lifetime of an air compressor is 14 years so the lifetime of the regulations is also fourteen years because full turnover of existing, inefficient air compressors will have occurred.

The DOE analysis provides several Trial Standard Levels (TSLs) that are ranked in

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1 Technical Support Document: Energy Efficiency Program for Consumer Products and Commercial and Industrial Equipment: Air Compressors, https://www.regulations.gov/contentStreamer?documentId=EERE-2013-BT-STD-0040-0082&attachmentNumber=1&contentType=pdf

2 Department of Energy, Energy conservation Program: Energy Conservations Standards for Air Compressors, Final Rule, https://www.energy.gov/sites/prod/files/2016/12/f34/Compressors_Standards_Final_Rule.pdf

order from 1 being the least efficient combination of efficiency levels for the compressor product classes, and 6 being the most efficient combination of efficiency levels. The Energy Commission's proposed regulations propose to set efficiency standards at TSL 2, which is the same level proposed by the DOE. Under the proposed regulation, Californians will have a first year energy savings of approximately 25 GWh with an approximate energy savings after full stock turnover (fourteen years) of 322 GWh/yr. The per unit incremental cost is estimated to be between $904-$2,550 per model with an annual estimated utility bill savings from reduced operating costs between $364 - $1,025 per model. Cumulatively over fourteen years, the total incremental costs are $87,430,600 with a total lifetime net savings of $258,843,300. After full stock turnover (fourteen years), the annual statewide monetary benefits are estimated to be $49 million.

Under alternative 1, the Energy Commission considered maintaining the status quo by not enacting a regulation. There are no costs and no benefits associated with maintaining the status quo.

Under alternative 2, the Energy Commission considered TSL 3, as analyzed by the DOE[3], which is a more stringent efficiency standard for air compressors. Under TSL 3, the per unit incremental cost is estimated to be between $2,084 and $5,750 per model. The per unit annual utility bill savings from reduced operating costs is estimated to be between $773 and $1,845 per model for the product lifetime (fourteen years). After full stock turnover, the cumulative statewide benefits are $658,550,900 and initial cost is $198,393,800. Although still cost-effective, a proposal at TSL 3 would likely take longer for the Energy Commission to support and defend through a rulemaking, making it less likely that TSL 3 would be effective in a similar timeframe to TSL 2. As a result, the Energy Commission staff believed the benefits of the proposed regulation could be achieved more quickly than the benefits of alternative 2, resulting in greater overall savings.

SPECIFIC TECHNOLOGIES OR EQUIPMENT

The proposed regulations do not mandate a specific technology or equipment, and instead establish performance standards related to air compressors.

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[3] Department of Energy, Energy conservation Program: Energy Conservations Standards for Air Compressors, Final Rule, https://www.energy.gov/sites/prod/files/2016/12/f34/Compressors_Standards_Final_Rule.pdf p. 310

ECONOMIC IMPACT ASSESSMENT/ANALYSIS

The Creation or Elimination of Jobs within the State of California.

The Energy Commission estimates that the regulations may indirectly create 12 new jobs in California and will not eliminate any jobs. This is based on the DOE's Technical Support Document's indirect employment impact analysis. The DOE employment impact analysis estimates indirect national job creation or elimination resulting from possible standards, due to reallocation of the associated expenditure for purchasing and savings from operating more efficient air compressors. Therefore, the Energy Commission has determined the proposed regulations may indirectly create jobs in California and will not eliminate jobs in California

The Creation of New Businesses or the Elimination of Existing Businesses within the State of California.

The proposed regulation sets new efficiency standards that will require manufacturers to produce more efficient air compressors. Businesses will be impacted if they purchase regulated compressors. The Energy Commission assumes that both in-state and out-of-state manufacturers will pass the incremental cost to improve the efficiency of an appliance onto the distributors and retailers, which in turn will pass the cost on to the consumers. The Energy Commission assumes that commercial and industrial air compressors are typically purchased by businesses not individuals. Efficiency standards for air compressors have an initial increased incremental cost to businesses for the improved efficiency, but the increased efficiency will result in lower utility bills to those businesses through reduced electricity consumption. The savings from the lower utility bills over the lifetime of the more efficient air compressors exceed the incremental costs of improvement, resulting in overall economic savings. Because air compressor shipments and sales are not expected to change significantly as a result of the proposed regulations, the economic impact on any business is expected to be insufficient to support the creation or cause the elimination of any business. Therefore, the Energy Commission has determined that it is unlikely that any new or existing businesses in California will be created or eliminated.

The Expansion of Businesses Currently Doing Business within the State of California.

The proposed regulation sets new efficiency standards that will require manufacturers to produce more efficient air compressors. Businesses will be impacted if they purchase regulated compressors. The Energy Commission assumes that both in-state and out-of-state manufacturers will pass the incremental cost to improve the efficiency of an appliance onto the distributors and retailers, which in turn will pass the cost on to the consumers. The Energy Commission assumes that commercial and industrial air compressors are typically purchased by businesses not individuals. Efficiency standards for air compressors have an initial increased incremental cost to businesses for the improved efficiency, but the increased efficiency will result in lower utility bills to those

businesses through reduced electricity consumption. The savings from the lower utility bills over the lifetime of the more efficient air compressors exceed the incremental costs of improvement, resulting in overall economic savings. Air compressor shipments and sales are not expected to change significantly as a result of the proposed regulations. Therefore, the Energy Commission has determined that businesses doing business in California will not be expanded.

Benefits of the Regulations to the Health and Welfare of California Residents, Worker Safety and the State's Environment.

The proposed regulation will benefit California residents and worker safety through the health benefits and cost savings of mandatory statewide standards for air compressors in the Appliance Efficiency Regulations. This includes definitions, test procedures, labeling requirements, and efficiency standards for air compressors. The specific benefits of the proposed regulations would be cost savings to the consumer and lower statewide energy use. Under the proposed regulation, California will have a first year energy savings of approximately 25 GWh with an approximate energy savings after full stock turnover (14 years) of 322 GWh/yr. The per unit incremental cost is estimated to be between $904-$2,550 per model with an annual estimated utility bill savings from reduced operating costs between $364-$1,025 per model. The cumulative total incremental costs are $87,430,600. The cumulative lifetime net savings are estimated to be $258,843,300, with a full stock turnover savings of approximately $49 million per year.

The proposed regulations will also have a significant positive impact on the environment through avoided greenhouse gas emissions produced during the generation of electricity since the regulation reduces electric power demand primarily from natural gas power plants. Therefore, the Energy Commission could not identify any adverse environmental impacts associated with the proposed efficiency standards.

Results of the Economic Impact Assessment/Analysis

The Energy Commission concludes that (1) the proposal may indirectly create jobs within California; (2) it's unlikely the proposal will eliminate jobs within California; (3) it's unlikely the proposal will create new businesses in California; (4) it's unlikely the proposal will eliminate existing businesses within California; and (5) it's unlikely the proposal will result in the expansion of businesses currently doing business within California.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

No federal standards currently exist for air compressors. The U.S. DOE did consider energy conservation standards for air compressors in a rulemaking in 2016, but to date has not published the efficiency standards in the Federal Register. However, the DOE did publish a final test procedure for air compressors in the Federal Register that

became effective January 4, 2017, and is required compliance beginning on July 3, 2017, making it the applicable test procedure for all air compressors manufactured in or imported into, the United States. The Energy Commission adopted this test procedure in a previous rulemaking.

The Energy Commission used information from the U.S. DOE's rulemaking to support this regulation.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT AFFECTING BUSINESS

The Energy Commission estimates that approximately 3,000 California businesses may be impacted by the regulations each year, including distributors, retailers, electric utilities, manufacturers, and businesses purchasing compressors. However, these regulations are not likely to result in a significant adverse economic impact on any business.

The proposed regulation sets new efficiency standards that will require manufacturers to produce more efficient air compressors. Business will be impacted if they purchase regulated compressors. The Energy Commission assumes that both in-state and out-of-state manufacturers will pass the incremental cost to improve the efficiency of an appliance onto the businesses involved in the distribution and sales of air compressors, which in turn will then pass the cost on to the consumers. The Energy Commission assumes that commercial and industrial air compressors are typically purchased by businesses not individuals. Efficiency standards for air compressors have an initial increased incremental cost to businesses for the improved efficiency, but the increased efficiency will result in lower utility bills to those businesses through reduced electricity consumption. The savings from the lower utility bills over the lifetime of the more efficient air compressors exceed the incremental costs of improvement, resulting in overall economic savings.

Under the appliance efficiency regulations (sections 1608 and 1609), retailers and/or distributors are responsible for ensuring that the air compressors they sell are certified to California Energy Commission's Modernized Appliance Efficiency Database System (MAEDbS) prior to being offered for sale in California. Because air compressors are a newly regulated product, the Energy Commission assumes that retailers and distributors will experience some additional costs associated with verifying that compliant air compressors appear in MAEDbS.

Some distributors and/or retailers may incur additional costs if they choose to rebrand an air compressor purchased outside of California not certified to MAEDbS and wish to sell it in California. Since the re-branded air compressor will require certification to MAEDbS, these distributors and/or retailers will incur an additional cost associated with

the certification.

Sellers of electric power, both retail and wholesale, may experience slightly reduced sales of electricity due to the proposed standard. However, any reduction in sales is small compared to the total electricity sales of these entities and is therefore negligible.

The Energy Commission assumes that half of the businesses impacted are small businesses.

Non-substantive grammatical/numerical changes have been made throughout the chapter that does not materially alter any requirement, right, responsibility, condition, prescription or another regulatory element of any CCR provision. These non-substantive changes are necessary to effectively communicate the requirements and minimum standards in a precise and clear manner and to eliminate any redundancy or varied interpretations.

FOR FURTHER INFORMATION

Inquiries concerning all aspects of the rulemaking process, including the substance of the proposed regulations or any other information upon which the rulemaking is based, should be directed to Corrine Fishman at Corrine.Fishman@energy.ca.gov or (916) 654-4976. You may also contact Alejandro (Alex) Galdamez at Alejandro.Galdamez@energy.ca.gov or (916) 654-4315.