

State of California  
AIR RESOURCES BOARD  
Executive Order G-096-029-034  
Equipment Precertification of  
Catalytica Energy Systems, Inc.  
Xonon™ Cool Combustion Technology

WHEREAS, the Air Resources Board (ARB) has established a statewide Equipment and Process Precertification (Precertification) Program to assist air pollution control and air quality management districts in meeting the requirements of the Air Pollution Permit Streamlining Act (California Health and Safety Code section 42320-42323);

WHEREAS, the ARB has been given the authority under California Health and Safety Code section 39620 to develop and implement the Precertification Program which consists of a preliminary engineering evaluation of equipment or processes and provides recommended operating conditions;

WHEREAS, this Precertification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, Catalytica Energy Systems, Inc. (Catalytica) has requested a Precertification of its Xonon™ Cool Combustion technology;

WHEREAS, Catalytica identified the following Precertification standards regarding the emissions performance of its Xonon™ technology:

1. Catalytica Energy Systems' Xonon™ Cool Combustion technology incorporated in a natural gas-fueled 1.5 megawatt Kawasaki M1A-13X turbine demonstrated with a continuous emissions monitor, emissions of oxides of nitrogen no greater than 2.5 parts per million by volume, measured on a dry basis, corrected to 15 percent O<sub>2</sub>, on a one hour rolling average at 98 percent or greater operating load of design capacity.
2. Catalytica Energy Systems' Xonon™ Cool Combustion technology incorporated in a natural gas-fueled 1.5 megawatt Kawasaki M1A-13X turbine demonstrated carbon monoxide emissions of no greater than 6 parts per million by volume, corrected to 15 percent O<sub>2</sub>, on a one hour rolling average at 98 percent or greater operating load of design capacity.

WHEREAS, this Precertification is valid only when the Xonon™ technology is manufactured, installed, and maintained in accordance with manufacturer's instructions;

WHEREAS, I find that the Applicant, Catalytica, has met the requirements specified in Title 17, California Code of Regulations, section 91400 which incorporates the ARB's

Criteria for Equipment Precertification (adopted June 14, 1996) and has satisfactorily demonstrated through independent testing that the Xonon™ technology described in the application meets the identified Precertification standards;

WHEREAS, this performance Precertification is subject to all conditions and requirements of the ARB's Criteria for Equipment Precertification, including the provisions relating to suspension and revocation;

WHEREAS, marketing of this device using an identification other than that shown in this Executive Order shall be prohibited unless prior approval is obtained from the ARB. Any oral or written references to this Executive Order or its content by Catalytica, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that this Executive Order is not an endorsement or approval of the Xonon™ technology. No claim shall be made, such as "Approved by the Air Resources Board," with respect to any advertising or other oral or written communication. It is only a finding that the Xonon™ technology meets the identified Precertification standard, as specified in the evaluation report for application number 10199801;

WHEREAS, this performance Precertification shall expire three years from the date of this Executive Order, unless renewed.

NOW THEREFORE, IT IS HEREBY ORDERED, that the performance Precertification, Executive Order G-096-029-034, executed at Sacramento, California this 24th day of June, 2002, is hereby granted.

Michael P. Kenny  
Executive Officer

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By: Peter D. Venturini, Chief  
Stationary Source Division