

## RESOLUTION NO. 2009-23

### RESOLUTION OF THE SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY MAKING CERTAIN FINDINGS WITH RESPECT TO COMPLIANCE WITH GREENHOUSE GASES EMISSION PERFORMANCE STANDARDS (SAN JUAN UNIT 3 PROJECT)

WHEREAS, the California Energy Commission has adopted regulations under Docket 06-OIR-1, pursuant to Senate Bill 1368 (Stats. 2006, Ch. 598) (Regulations), implementing a greenhouse gases emission performance standard for local publicly owned electric utilities; and

WHEREAS, SCPPA, on behalf of its Members wishes to demonstrate compliance with the greenhouse gases emission performance standard as it may be applicable to the San Juan Unit 3 Project; and

WHEREAS, the San Juan Unit 3 Project is SCPPA's 41.8% ownership interest in San Juan Unit 3, a coal fired steam electric generating unit located in Waterflow, New Mexico, and acquired from the Century Power Company in 1993; and

WHEREAS, the San Juan Project's expected annual average carbon dioxide emission rate is about 2,100 pounds of carbon dioxide per megawatt hour of electricity produced, and the emission performance standard defined in Section 2902 of the Regulations for baseload generation is 1,100 pounds of carbon dioxide per megawatt hour of electricity produced, which classifies the San Juan Project as an existing non-deemed compliant powerplant; and

WHEREAS, "Covered Procurements" as defined in Section 2901(d) of the Regulations include new investments in existing non-deemed compliant powerplants, but exclude "routine maintenance" pursuant to Section 2901(j) of the Regulations; and

WHEREAS, the California Energy Commission Electricity Committee's "Explanation of Changes to Regulations Establishing and Implementing a Greenhouse Gases Emission Performance Standard for Local Publicly Owned Utilities in Response to the Office of Administrative Law's Disapproval Decision" notes "routine maintenance may include replacing parts when they wear out. New Parts are sometime made better than previous iterations and improvements in some parts (e.g., turbine blades) can lead to an increase in efficiency and capacity," and "the Energy Commission determined that it is necessary to ensure that [Publicly Owned Utilities] are not prohibited from maintaining the operation of their power plants simply because there might be an incidental increase in capacity resulting from such maintenance;" and

WHEREAS, the routine preventive maintenance program instituted by PNM, the San Juan Generating Station Operating Agent, is designed to minimize any chance of asset failure occurring at the San Juan Generating Station and includes proactive maintenance involving the replacement of vintage turbine rotors and blades; and

WHEREAS, normal major outage inspections require routine maintenance involving the performance of non-destruction testing on the blade root attachments and the rotor which can reveal the presence of cracking or fault indications; and

WHEREAS, San Juan Unit 3 has been exposed to numerous start-up and shut-down situations as well as partial load conditions, which have worn the High Pressure/Intermediate Pressure Rotor and contributed to the reduction of the reliability of the turbine; and

WHEREAS, the San Juan Generating Station has experienced significant amount of solid particle erosion (SPE) across all four units which has been discovered during the routine maintenance inspections; and

WHEREAS PNM has proposed to replace the San Juan Unit 3 High Pressure/Intermediate Pressure Rotor to remediate damage due to SPE and mitigate risk of blade failure, catastrophic damage to internal turbine components and asset failure, and

WHEREAS, routine maintenance activities may include a total High Pressure/Intermediate Pressure turbine flow path replacement approach as the only method to address and mitigate the extensive SPE damage for the purpose of preventing breakdowns and ensuring unit reliability; and

WHEREAS, the 1970's era design of the turbine rotor did not adequately address the impact of SPE damage and overall turbine damage will continue to occur regardless of the turbine maintenance approach; and

WHEREAS, the original equipment manufacturer, General Electric, has recommended replacement of the High Pressure/Intermediate Pressure turbine rotor with a modern design, thereby addressing SPW issues by improving steam path geometry, increasing blade spacing and increasing the number of blade rows to compensate for individual losses of efficiency per blade row, also resulting in improved efficiency across the entire turbine; and

WHEREAS, the improved efficiency is an incidental benefit to the actual purpose of replacing the worn and deteriorating turbine; and

WHEREAS, the San Juan Unit 3 turbine is 25 years old and turbine rotors of this vintage are being routinely replaced in the industry; and


WHEREAS, the Electric Power Research Institute, Inc., has determined that the economic life of the San Juan Generating Station may extend beyond the year 2050; and

WHEREAS, SCPPA has covenanted to operate and maintain the San Juan Project in the most efficient and economical manner consistent with prudent utility practice; and


WHEREAS, replacement of the San Juan Unit 3 High Pressure/Intermediate Pressure turbine is consistent with prudent utility practice.

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of the Southern California Public Power Authority, that the proposed San Juan Unit 3 High Pressure/Intermediate Pressure turbine replacement project is consistent with prudent utility practice, constitutes routine maintenance, and is not a "Covered Procurement" pursuant to the regulations promulgated by the California Energy Commission in Docket 06-OIR-1, pursuant to SB 1368.

THE FOREGOING RESOLUTION is approved and adopted by the Authority, this 19th day of February, 2009.

  
PRESIDENT  
Southern California Public  
Power Authority

ATTEST:

  
SECRETARY  
Southern California Public  
Power Authority