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CENACE
CENTRO NACIONAL DE
CONTROL DE ENERGÍA



Subdirección de Operación

Gerencia de Control Regional Baja California
Subgerencia de Planeación y Estrategias Operativa

Oficio No. CENACE/DOPS-SO-GCRBC-SPEO/012/2025

Mexicali, Baja California, Mexico
February 28, 2025.

Subject: Centro Nacional de Control de Energia
2025 Annual Progress Report

Mr. Doug Tucker

WECC Senior Staff Engineer
155 North 400 West, Suite 200
Salt Lake City, Utah 84103-1114

Mrs. Eepsita Priye
Chair, WECC Studies Subcommittee

Dear Mr. Tucker and Mrs. Priye,

In fulfilment of the WECC Progress Report Policies and Procedures for 2020, Centro Nacional de Control de Energia (CENACE) is pleased to share with you the 2025 Annual Progress Report:

1. All Generation projects (200 MW or greater).

- a. The "PV Solar Plant Puerto Peñasco Sequence III," with a capacity of 300 MW, and the "PV Solar Plant Puerto Peñasco Sequence IV," with a capacity of 280 MW, are both constructed in the Sonora Region and are radially interconnected to the Cucapah Station in the Baja California Region. These plants are projected to be completed in December 2027 and April 2028, respectively, which will increase renewable generation in the Mexicali Zone.
- b. Battery energy storage systems in PV Solar Plant Puerto Peñasco Sequence III and IV with a capacity of 199 MW, both constructed in the Sonora Region, radially interconnected to Cucapah Station in the Baja California Region, projected for December 2027.
- c. The "Combined Cycle Gonzalez Ortega," with a capacity of 768.80 MW, is connected in the Mexicali Zone and is projected to be completed by April 2026. This project will provide voltage support and increase generation capacity in the Valley Region.
- d. The "Combined Cycle San Luis Rio Colorado," with a capacity of 769.70 MW, is connected in the San Luis Zone and is projected to be completed by August 2026. This project will provide voltage support in the San Luis Zone and increase generation capacity in the CENACE system.



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2. New and upgraded transmission facilities with voltage levels over 200 kV.

- a. The "PV Solar Plant Puerto Peñasco Sequence III Interconnection Project" is projected for completion in December 2027. It consists of a new 400/230 kV transformer with a capacity of 375 MVA at Cucapah Substation, a new synchronous condenser with a capacity of +350/-250 MVar at Maniobras Santa Clara, and three new transmission lines: one from Cucapah to Maniobras Santa Clara at 400 kV, another from Maniobras Santa Clara to Puerto Peñasco Fotovoltaico at 400 kV, and a third from Cucapah to Herradura at 230 kV.
- b. The "PV Solar Plant Puerto Peñasco Sequence IV Interconnection Project" is projected for completion in December 2027. It consists of a new 400/230 kV transformer with a capacity of 375 MVA at Cucapah Substation and a new transmission line from Cucapah to Herradura at 230 kV.
- c. The "Combined Cycle Gonzalez Ortega Interconnection Project" is scheduled to take place from May 2024 to April 2026. It consists of the following components:
 - i. Libramiento Maniobras 161 kV Substation
 1. Connected by looping the transmission line from Mexicali II to Gonzalez Ortega into Libramiento Maniobras.
 2. Relocating transmission lines from Ruiz Cortines to Gonzalez Ortega to run from Ruiz Cortines to Libramiento Maniobras.
 3. Connecting the Central de Combustión Interna Mexicali Oriente to Gonzalez Ortega and then to Libramiento Maniobras.
 - ii. Libramiento Maniobras 230 kV Substation
 1. Connected between the 230 kV transmission lines from Aeropuerto Dos to Cerro Prieto Tres and from Sanchez Taboada to Valle de Puebla.
 - iii. Transmission Lines
 1. Two new 230 kV transmission lines between La Rosita and La Herradura.
 2. Two new 230 kV transmission lines between La Herradura and Tijuana.
 3. Looping of the existing transmission line from Mexicali Oriente to Cerro Prieto IV at 161 kV into the existing Gonzalez Ortega Substation at 161 kV.
- d. The project consists of the 230 kV Central Combined Cycle Power Plant San Luis Río Colorado Substation, the installation of a new 230/161 kV transformer with a capacity of 225 MVA at the Ruiz Cortines Substation, and the relocation of the PID AT20 transformer, also with a capacity of 225 MVA, to the Ruiz Cortines Substation. Additionally, a new 230/13.8 kV transformer with a capacity of 40 MVA will be installed at the Parque Industrial Substation. A new 230 kV transmission line will be constructed from Sánchez Taboada to Cerro Prieto II, and the existing transmission line from Ruiz Cortines to Cerro Prieto I will be relocated to connect Ruiz Cortines to Cerro Prieto III at 230 kV. The transmission line from Ruiz Cortines to Parque Industrial, currently operating at 161 kV, will be upgraded to 230 kV, and the line from Parque Industrial to Hidalgo, also operating at 161 kV, will be modified to connect Parque Industrial to Ruiz Cortines at 230 kV and Ruiz Cortines to Hidalgo at 161 kV. The 230 kV Central Combined Cycle Power Plant San Luis Río Colorado Substation will be connected


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- by relocating the transmission lines from San Luis Rey to Parque Industrial to San Luis Rey to Central Combined Cycle Power Plant San Luis Río Colorado, and from Combustión Interna Altar to Parque Industrial to Combustión Interna Altar to Central Combined Cycle Power Plant San Luis Río Colorado. A new 230 kV transmission line will also be established between Combustión Interna Altar and the Combined Cycle Central San Luis Río Colorado Substation.
- e. A new "Victoria 230 kV Substation" will be radially connected to the existing Chapultepec 230 kV Substation in the San Luis Río Colorado area, with a projected completion date of June 2025. This addition will enhance the distribution capacity to meet load service demands.
 - f. A new 230/115/69 kV transformer, "Panamericana Potencia Bank 3," with a capacity of 225 MVA, will be installed at the existing Panamericana Potencia Substation, projected for completion in October 2025. This transformer will enhance the serving capacity from the 230 kV network to the 69 kV network in the Tijuana area.
 - g. A new "Libramiento 230 kV Substation" will be constructed in the San Luis Río Colorado area, projected for completion in December 2025. This substation will connecting between the existing transmission line from San Luis Rey to Parque Industrial at the 230 kV voltage level.
 - h. The "Arrajal Project," projected for completion in July 2027, involves the construction of a new Arrajal Substation featuring a 230/115 kV transformer with a capacity of 225 MVA in the Ensenada area. Additionally, a new 230 kV transmission line will be constructed from Ensenada to the Mexicali area. This project will enhance voltage support and increase transmission capacity in the Ensenada Zone.
 - i. A new 230/115/69 kV transformer, "Panamericana Potencia Bank 4," with a capacity of 225 MVA, will be installed at the existing Panamericana Potencia Substation, projected for completion in December 2030. This transformer will enhance the serving capacity from the 230 kV network to the 69 kV network in the Tijuana area.
 - j. The looping of the existing Cerro Prieto Dos to San Luis Rey transmission line into the Chapultepec 230 kV Substation is projected for completion in December 2030. This project will provide voltage support to the San Luis Río Colorado area.
 - k. New 230/115 kV transformer "Lomas Bank 3" with capacity of 100 MVA at existing Lomas Station, projected for December, 2030.
 - l. New 230/115/69 kV transformer "Tijuana I Bank 5" with capacity of 225 MVA at existing Tijuana I Substation, projected for December, 2030. This will increase serving capacity from 230 kV to the 69 kV network at the Tijuana Zone.
 - m. New 230/115/69 kV transformer "Metropoli Potencia Bank 5" with capacity of 225 MVA at existing Metropoli Potencia Station, projected for December, 2030. This will increase serving capacity from 230 kV to the 69 kV network at the Tijuana Zone.



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3. Any facilities that may have a significant impact on the reliability of the Western Interconnection.

- a. New “Encantada 69 kV Substation” at Tijuana Zone, projected for Marzo, 2025. This will be connected as a switchyard between existing transmission line from Metropoli Potencia to Tijuana I at 69 kV voltage level.
- b. Looping of existing transmission line from Cipres to Cañon at 115 kV into existing Maneadero Substation at 115 kV, projected for April, 2026 This will give voltage support to the Ensenada Zone.
- c. Looping of existing transmission line from Cardenas to Guerrero at 69 kV into existing Rubi 69 kV Substation, projected for April, 2026. This will increase load serving capacity in Tijuana Zone.
- d. Looping of existing transmission line from Industrial to Universidad at 69 kV level into existing Frontera Substation at 69 kV, projected for April, 2026. This will increase voltage support and serving load capacity in Tijuana Zone.
- e. New STATCOM +30/-30 MVARs at existing San Quintin 115 kV Substation to increase reactive power support in Ensenada Zone, projected for April, 2026.
- f. New “Paredones Potencia 161 kV Substation” at San Luis Rio Colorado Zone, projected for April, 2028. This will be connected as a switchyard between existing transmission line from Libramiento Maniobras to Ruiz Cortines at 161 kV voltage level.
- g. New “Valle Potencia 230 kV Substation” at San Luis Rio Colorado Zone, projected for April, 2028. This will be connected as a switchyard between existing transmission line from Ruiz Cortines to Parque Industrial at 230 kV voltage level.
- h. New “Alamar 69 kV Substation” at Tijuana Zone, projected for April, 2028. This will be connected as a switchyard between existing transmission line from Tijuana I to Frontera at 69 kV voltage level.
- i. New “Valle Dorado 115 kV Substation” at Ensenada Zone, projected for April, 2029. This will be connected as a switchyard between existing transmission line from Cipres to Cementos California at 115 kV voltage level.
- j. New “Toreo 69 kV Substation” at Tijuana Zone, projected for April, 2031. This will be connected as a switchyard between existing transmission line from Guerrero to Rio at 69 kV voltage level.



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Should you have any questions or comments, please don't hesitate to ask.

Sincerely,

Noe Cruz Ramirez

Transmission Planning and Operations Assisting Manager
CENTRO NACIONAL DE CONTROL DE ENERGIA (CENACE)

