

2025 Annual Progress Report to WECC Pacific Gas and Electric Company

Waiver of “Significant Transmission Project” Status

Table 1 and 2 update the planned transmission and generation projects, respectively, in PG&E service area that were presented in PG&E’s previous year’s Annual Progress Report. These projects were granted the waiver of “Significant Transmission Project” status for the purpose of Project Coordination Review Process.

Table 3 and 4 list the planned transmission and generation projects, respectively, in PG&E service area requesting waiver of “Significant Transmission Project” status. The purposes of these projects are for serving local load, to enhance or maintain local reliability, and/or to reduce local capacity requirements. These projects are not expected to have significant impacts on the operation of the Western Interconnected System.

PG&E requests waivers of the “Significant Transmission Project” status for the purpose of Project Coordination Review Process.

Table 1
Planned Transmission Projects
Waiver of “Significant Transmission Project” Status Granted in years up to and including 2024¹

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Estrella 230 kV Transmission Substation	Construct and own the new Estrella 230/70/21 kV Substation and associated transmission line work as defined by the CAISO’s Transmission Plan. Connecting the new Estrella Substation to the 230 kV and 70 kV systems will improve capacity and service reliability to PG&E customers in the Paso Robles area. This project is part of the Utility’s overall program to upgrade its substation design to meet today’s customer service reliability expectations.	Mar-2029
Glenn 230/60 kV Transformer No. 1 Replacement Project	Replace the existing 230/60 kV Transformer No. 1 and regulator at Glenn with a new 3-phase, 230/60 kV with a Load Tap Changer.	In Service Mar-2024
Midway-Kern Nos. 1 and 2 230kV Line	Reconductor the Midway-Kern #1 230 kV Line and reestablish as two circuits, Midway-Kern #1 and #2 230 kV Lines. In addition, perform minor modifications at Kern and Midway Substations.	Jun-2028

¹ Facilities indicated “In Service” will be removed from the 2026 annual progress report.

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Wheeler Ridge Junction Substation	Construct a new 230/115 kV Substation with Breaker and a Half at Wheeler Ridge Junction, Convert 15.5 miles of the Wheeler Ridge – Lamont 115 kV Line to 230 kV	Mar-2033
Monta Vista 230 kV Bus Upgrade Project	Install bus-sectionalizing and bus-parallel breakers on the Monta Vista 230 kV bus and replace the 230kV control building with an MPAC building	Mar-2026
Moraga-Castro Valley 230 kV Line Capacity Increase Project	Upgrade the limiting substation equipment (jumper conductors and wave traps) at Moraga and Castro Valley substations	May-2025
Morgan Hill - Watsonville 115 kV Area Reinforcement (formerly the Spring Substation Project)	Rebuild Metcalf - Green Valley 115 kV into the Green Valley - Morgan Hill 115 kV, Rebuild Morgan Hill 115 kV into a BAAH configuration	Jan-2029
Pittsburg 230/115 kV Transformer Capacity Increase	Install 3rd 230/115 kV Transformer at Pittsburg Substation with a rating of 420 MVA	Jan-2028
Rio Oso 230/115 kV Transformer Upgrades	Replace the Rio Oso 230/115 kV transformers (Nos. 1 and 2) with two 420 MVA rated transformers. .	May-2025
Rio Oso Area 230 kV Voltage Support	Install a new Static Var Compensator (SVC) at Rio Oso Substation.	May-2026
Martin 230 kV Bus Extension Project (Egbert Switching Station)	The Martin 230 kV Bus Extension project will: Construct a new 230 kV switching station near, but not adjacent to, Martin Substation. Relocate voltage control and power flow limiting equipment associated with the Jefferson-Martin and Martin-Embarcadero Cables from Martin, if necessary, to the new switching station. Completion of the Martin Bus Extension project will improve service reliability and system resiliency in serving customers in San Francisco and northern San Mateo County.	Dec-2029
Lockeford-Lodi Area 230 kV Development	The Lockeford-Lodi Area 230 kV Development Project will loop the Brighton – Bellota 230 kV Line into Lockeford 230 kV Substation to bring a new 230 kV source into the area. A new 230 kV double circuit tower line will be constructed to connect the existing Lockeford 230 kV Substation to a new 230 kV switching to be constructed near the City of Lodi’s existing Industrial 60 kV Substation. To accommodate the Brighton – Bellota loop-in and the new DCTL, the Lockeford 230 kV Bus will be upgraded to a four-bay breaker-and-a-half (BAAH) bus configuration. The City of Lodi will be constructing a new 230/60 kV Substation which will be connected to the new 230 kV switching station.	Dec-2029
Warnerville – Bellota 230 kV Line Reconductoring	Reconductor the Bellota – Warnerville 230 kV Line with a larger capacity conductor	In Service Mar-2024

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
South of Mesa Upgrade	This project proposes to upgrade approximately 21.3 miles of conductor on the Sisquoc – Santa Ynez SW STA 115 kV Line, install 20 Mega Volt-ampere reactive (MVAR) shunt capacitors at Cabrillo Substation and install Remedial Action Scheme (RAS) (formerly known as Special Protection Scheme (SPS)) on the Sisquoc – Santa Ynez SW STA 115 kV Line.	Jun-2029
Sobrante Bank 1 Replacement	Replace Sobrante 230/115 kV Transformer Bank 1	Mar-2032
Coburn Banks 1 and 2 Replacement	Replace Coburn 230/60 kV Transformer Banks 1 and 2 with higher capacity transformers	May-2032
Gates 500kV Dynamic Voltage Support	This project proposes to add 500kV breakers, switches, bus work and associated equipment required to connect the voltage support equipment. The voltage support equipment, which is installed by third-party, will support the system voltage after DCPD retires in 2024/2025.	Jan-2025
Rio Oso 230 kV BAAH Bus Upgrade	Convert Rio Oso 230 kV bus to a 6 bay gas insulated Breaker and a Half (BAAH).	In Service Dec-2024
Bakersfield Nos. 1 and 2 230kV Tap Lines Reconductoring	Loop the Bakersfield 230kV Substation onto the Midway-Kern No. 2 230kV Line and reconductor the Bakersfield Nos. 1 and 2 230 kV Tap Lines with a larger conductor.	Sep-2030
Helm 230/70 kV Bank 1/ Regulator 1 Replacement	Replace Helm 230/70 kV Transformer Bank 1 and Regulator No. 1	In Service Apr-2024
Vaca Dixon - Lakeville 230 kV Corridor Series Compensation	Install about 78 modular power flow control system devices on Vaca Dixon – Lakeville 230 kV and Vaca Dixon – Tulucay 230 kV transmission lines	Nov-2026
Ravenswood 230/115 kV transformer #1 Limiting Facility Upgrade	Upgrading of the limiting substation equipment on the Ravenswood 230/115 kV Line Transformer #1	Jun-2027
Jefferson 230 kV Bus Upgrade	Construct the third 230 kV BAAH bay at Jefferson and connect the Jefferson-Martin Line into the new bay	Oct-2026
Oakland Clean Energy Initiative	Upgrade to Moraga 230/115 kV transformer bank 3 to remove limiting elements, upgrades at Moraga 115 kV and Oakland X 115 kV substation buses	Apr-2025
Midway 230kV Bus Section D Upgrade Project (Part of Project: Midway-Kern PP 230 kV Lines Nos. 1, 3, and 4 Capacity Increase Project)	Install seven bays (four full and three partial) of 230kV systems (new Bus Section D) and its connection to the existing 230kV bus at Midway Substation.	Aug-2030
Tesla 230 kV Bus Series Reactor project	Replace the existing bus series reactors (8&16 ohms) in 230kV bus sections C, D & E with 36 ohms reactors and make the necessary connection changes.	In Service Mar-2024
(Revised) Wilson 115 kV Area Reinforcement	Relocate lines and expand the Wilson 115 kV bus to make room for the STATCOM (Phase 1 by 2020). Convert the Wilson 115 kV and 230kV bus to BAAH, replace limiting equipment on Wilson 230/115 kV Bank 1 to obtain full bank capacity, install third 230/115 kV transformer bank, replace limiting	Oct-2028

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
	components and rerate the Atwater-Atwater Jct 115 kV line section (Phase 2 by 2023)	
Cottonwood 230/115 kV Bank 1 And 4 Replacement Project (Original Project: Cottonwood 115 kV Substation Shunt Reactor)	Replace existing transformers with 2 new transformers with LTC.	Apr-2028
Moraga 230kV Bus Upgrade	Upgrade Moraga 230 kV Bus (Add sectionalizing breakers and a bus tie breaker to Moraga 230 kV bus)	Dec-2028
East Shore 230 kV Bus Terminals Reconfiguration	Swap the line terminal positions at East Shore 230 kV Substation BAAH bus	Apr-2027
Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition	Add second high-side circuit breaker to Newark 230/115 kV transformer bank #7 and change this transformer bank connection to Double Bus Double Breaker.	Feb-2029
Gold Hill 230/115 kV Transformer Addition Project	Installation of a third 420 MVA 230/115 kV transformer at Gold Hill substation	Aug-2030
Moss Landing 500/230 kV Bank 9 Replacement	Replace Moss Landing 500/230 kV Bank 9 with four (4) 500/230 kV single-phase 374 MVA transformers	Jan-2028
Contra Costa PP 230 kV Line Terminals Reconfiguration Project	The project scope is to swap Lone Tree – Contra Costa PP 230 kV line and Birds Landing – Contra Costa PP 230 kV line terminal positions at Contra Costa PP 230 kV Substation	Sep-2025
Vasona-Metcalf 230 kV Line Limiting Elements Removal Project	At Metcalf substation, upgrade Vasona-Metcalf line terminal conductors; At both Metcalf and Vasona Substations, replace the wave traps and any other terminal conductors to achieve an overall line summer rating of 1743 Amps.	Aug-2026
Atlantic high voltage mitigation	Install a 200 MVA 3-phase 230/60 kV transformer with LTC at Atlantic substation	Apr-2027
Cortina Bank #1 230/115/60 kV Cortina 230/115/60 kV Transformer Bank No. 1 Replacement Project	Replace the existing Cortina 230/115/60 kV transformer Bank #1 with one 230/115 kV and one 115/60 kV transformer banks.	Mar-2027
Reconductor Delevan-Cortina 230kV line	Reconductoring Delevan-Cortina 230 kV Line <ul style="list-style-type: none"> • Reconductor ~17.7 miles (full line) • Replace insulators and hardware at 122 structures 	Apr-2028
Installing 10 ohms series reactors on the PG&E's Moss Landing – Las Aguilas 230 kV line	The scope of this project is to install a 10 ohm series reactor on Moss Landing - Las Aguilas 230 kV line to mitigate the line congestion during normal and emergency condition.	Apr-2028
Metcalf 230/115 kV Transformers Circuit Breaker Addition	Add parallel breakers to each of the 230/115 kV banks Nos. 1, 2, and 3 at Metcalf 230 kV Substation so that the three Metcalf 230/115 kV transformer banks can connect to both Metcalf 230 kV Bus1 and Bus 2.	Apr-2027
Lone Tree–Cayetano–Newark Corridor Series Compensation	Add 6 SmartValve units (2 SmartValve 10-1800 units per phase) to the Cayetano – Lone Tree 230 kV line Add 6 SmartValves units (2 SmartValve 10-1800 units per phase) to the Las Positas - Newark 230 kV Line	Dec-2027
Equipment Upgrade at CCSF Owned Warnerville 230 kV Substation	Upgrade limiting equipment at Warnerville 230kV - Install new jumpers, switches and new relays at the Warnerville 230kV Sub	In Service Apr-2023

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Los Banos 230 kV Circuit Breakers Replacement	Replace 230 kV circuit breakers 212, 222, 252 and 262 at Los Banos substation.	Apr-2028
Panoche 115 kV Circuit Breaker Replacement and 230 kV Bus Upgrade project	Replace 115 kV circuit breakers 132, 152, 102 and 162, install a new MPAC building for the 115 kV bus section, convert 230 kV Bus Section D to BAAH and replace overstressed breakers in Bus E to 63 kA at Panoche substation	Apr-2028
Mesa 230/115kV Spare Transformer	Install spare 230/115 kV transformer at Mesa substation.	Dec-2028
Borden-Storey 230 kV 1 and 2 Line Reconductoring	Reconductoring the Borden – Storey section(s) of the Wilson – Storey #1 and #2 230 kV lines	Feb-2030
Henrietta 230/115 kV Bank 3 Replacement	Replace Henrietta 230/115 kV Bank 3	Jul-2028

Table 2
Planned Generation Interconnection Projects
Waiver of “Significant Transmission Project” Status Granted in years up to and
including 2024¹

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Proxima Solar Generation Interconnection	Interconnect a 300 megawatt (MW) (net output) solar power-based generation facility to Pacific Gas and Electric Company's (PG&E's) new Switching Station looped into the Quinto Switching Station - Westley 230 kV Line	In Service Mar-2024
Fountain Wind	Interconnect a 200-megawatt (MW) (net output) wind generation facility to Pacific Gas and Electric Company's (PG&E's) Pit #1 – Cottonwood 230 kV Line in Shasta County, California.	Dec-2032 ENGINEERING
Sandrini Sol 2	The project proposes to install 200 MW Solar PV generation on a 230 kV bus at Wheeler Ridge Substation in Kern County with a maximum gross output of 200 MW. The project is to accommodate EDPR CA Solar Park LLC Sandrini Sol 2, Queue Position 1398 (Q1398), which proposes to install Solar PV with a maximum gross output of 200 MW.	In Service Feb-2024
Luna Valley	The Project is a Solar PV generation plant with a net output of 200 MW to Pacific Gas and Electric Company's (PG&E's) Tranquility Substation 230kV in Levis, Fresno County, CA.	Apr-2025
Corby	The Project is a Battery Storage generation plant with a net output of 300 MW to Pacific Gas and Electric Company's (PG&E's) Vaca-Dixon Substation 230 kV Bus in Vacaville, Solano County, CA.	Jan-2027 ENGINEERING
Sonrisa	The Project is a Solar PV generation plant with a net output of 200 MW to Pacific Gas and Electric Company's (PG&E's) Tranquility Switching Station 230 kV Bus in Levis, Fresno County	Sep-2025 ENGINEERING
Key Storage 1	The Project is a Battery Storage generation plant with a net output of 300.1 MW to Pacific Gas and Electric Company's (PG&E's) Gates Substation 500 kV in Huron, Fresno County, CA.	Jun-2026
Irving Storage	The Project is a Battery Energy Storage generation plant with a net output of 750.0 MW to Pacific Gas and Electric Company's (PG&E's) Moss Landing Substation 500 kV in Moss Landing, Monterey County	May-2028 ENGINEERING
Tanager Storage	The Project is a Storage generation plant with a net output of 200.0 MW to Pacific Gas and Electric Company's (PG&E's) Los Esteros Substation in San Jose, Santa Clara.	Nov-2027 ENGINEERING

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Buttonbush Solar Hybrid Energy Storage	The Project is a PV/Storage generation plant with a net output of 800.0 MW to Pacific Gas and Electric Company's (PG&E's) Midway Substation in Unincorporated, Kern.	Nov-2026 ENGINEERING

* ENGINEERING: Engineering and design stage

Table 3
Planned Transmission Projects
Requesting Waiver of “Significant Transmission Project” Status

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE
Covelo 60 kV Voltage Support	Install a 10 MVAR Shunt Capacitor at Covelo 60 kV	May-2030
Martin-Millbrae 60 kV Area Reinforcement	Reconductor 7.2 miles on the Martin-Sneath Lane 60 kV line and 2.5 miles on the Millbrae-Sneath Lane 60 kV line	May-2030
Diablo Canyon Area 230 kV high voltage mitigation	Add 120 Mvar shunt reactor (3X40 MVAR or 4X30 MVAR) and removal of one or two shunt capacitor steps at Mesa 115 kV	Aug-2027
Crazy Horse Canyon - Salinas - Soledad #1 and #2 115 kV Line Reconductoring	Re-conductor sections of CHCSS-Salinas-Soledad #1 and #2 115 kV lines	May-2030
Salinas Area Reinforcement	Build new 115 kV station near Chaular; convert existing Salinas-Spence 60 kV network to 115 kV and operate Salinas-Chaular system at 115 kV	Dec-2032
Cortina #1 60 kV Line Reconductoring	This project will help facilitate the delivery of an additional 10 MW to serve increased load in the Cortina area. The project scope of work includes: Reconductor approximately 26.2 miles of the Cortina #1 60 kV Line between Cortina Substation and Dunnigan Substation with 477 ACSS conductor, or equivalent, to achieve at least 1126 Amps of summer interior emergency rating.	Aug-2027
French Camp Reinforcement	Loop French Camp substation into Bellota-Tesla #2 230 kV line to add a new 230 kV bus at French Camp. The total length of transmission circuit is about 4.4 miles	May-2030
Rio Oso - W. Sacramento Reconductoring	Reconductoring Rio Oso – W. Sacramento 115 kV line as original re-rate of this line as a part of Vaca Dixon reinforcement project approved in 2017-18 TPP is no longer viable due to aging infrastructure.	May-2030
Vaca-Plainfield 60 kV Line Reconductoring	Reconductor Vaca-Plainfield 60 kV (about 30 miles) to achieve minimum conductor rating of 635 AMPS for summer normal and 741 AMPS for summer emergency rating	May-2030
Camden 70 kV Reinforcement	Reconductor Camden-Kingsburg 70 kV and add 30 MVAR voltage support at Comden substation.	May-2030
Gates 230/70 kV Transformer Addition	Add additional 230/70 kV bank at Gates	May-2030
Reedley 70 kV Capacity Increase	Add a double circuit between Reedley-Dinuba 70 kV line #2 and upgrade rating of existing Reedley-Dinuba 70 kV line #1 and upgrade Reedley 230/70 kV bank 4.	May-2030
Tejon Area Reinforcement	Reconductor of the Wheeler Ridge – Tejon 70kV line (5 miles), Wheeler Ridge – San Bernard 70kV line (5.9 miles), and San Bernard – Tejon 70kV line (7.1 miles) and replace the limiting disconnect switches	Aug-2027

Table 4
Planned Generation Interconnection Projects
Requesting Waiver of “Significant Transmission Project” Status

PROJECT NAME	PROJECT DESCRIPTION	DATE IN SERVICE