



### **Safety Moment**

- Water
- Non-perishable food
- Flashlight and extra batteries
- First aid kit
- Medications and medical supplies

Assemble an Emergency Kit



- Establish a meeting place
- Identify emergency contacts
- Plan for different types of emergencies (fire, earthquake, flood)

Develop a Family Emergency Plan



- Sign up for emergency alerts
- Know your community's evacuation routes
- Keep a batterypowered radio handy

Stay Informed



- Conduct regular drills
- Review and update your plan annually
- Ensure everyone knows how to use emergency equipment

Practice your Plan



- Create defensive space around your home
- Install smoke and carbon monoxide detectors
- Secure heavy furniture and appliances
- Know how to shut off utilities (water, electricity, gas)

Secure Your Home





# **Agenda**

#### Item

Welcome, Agenda & Logistics

TPR Project Spreadsheet Process & Improvements

Projects Not Included in TPR Spreadsheet

Capital Expenditures

Blanket Budgets

Hardware/Software Projects

Fire-Related Costs

Break (if necessary)

Project Specific Inquiries

Cost-Benefit Analysis

Work Order Authorizations

Wrap-Up



# **Virtual Meeting Logistics**

# Meeting Agreements

- No confidential information will be discussed.
- Please be mindful that others in this virtual meeting may also have questions.
- Mute your line if you are not speaking.
- Detailed questions that cannot be addressed in the meeting should be addressed via stakeholder questions and comments due on October 14.

# Engaging in Discussion

- SDG&E SMEs will present and then take live questions.
- Raise your hand (icon).
- When asking questions, please state your name and organization.

# **Important**

 SDG&E welcomes stakeholder ideas and feedback on how to improve this meeting in written comments.



# **SDG&E TPR Process – Remaining Schedule**

Event	Date
Stakeholder Meeting	September 30
Stakeholders' questions and comments related to Stakeholder Meeting	October 14
Written responses to questions and comments related to Stakeholder Meeting	November 4
Last day for Stakeholders to submit project-specific, follow-up questions to SDG&E	November 13
Written responses from SDG&E to Stakeholder project-specific follow- up questions	December 3
Last day for Stakeholders to submit comments to SDG&E. There is no expectation of written responses.	December 9
SDG&E releases Cycle 3 Project Spreadsheet	January 2





# **SDG&E TPR Process & Updates**

#### SDG&E TPR Process Financial Data Collection Overview

- 60 days prior to posting date TM1 data is pulled, and Accounting data is requested
- TM1 Data is manually sorted and filtered
  - Accounting data is added once received
- All data is reviewed and compared to prior TPR Spreadsheets
  - Columns are cross checked for reasonableness (Cap Ex, CWIP, Plant Adds, EAC, etc.)
  - Any projects missing from prior spreadsheet are researched and added if necessary

#### SDG&E TPR Process Non-Financial Data Collection Overview

- After the financial data pull determines projects in scope, relevant subject matter experts are identified for each project line item to assist with non-financial data collection
- A cross functional effort for each project line item is conducted to identify non-financial data field responses through various internal systems (e.g. P6, SharePoint, SAP, GIS, etc.)
- Non-financial data then goes through a data validation effort to ensure consistency and accuracy



# SDG&E TPR Process & Updates

#### **Issues in preparing second TPR Process Data Sheet:**

- Minor data consistency issues discovered between systems (ex. Removal costs)
- Small timing issues

### Planned Updates for Cycle 3 (due January 2)

- Minimizing the use of data outside of the TM1 Planning System
- Excluding Removal Costs from Capital Expenditures
- Adding additional validations and cross checks where possible





# **Projects Not Included in TPR Spreadsheet**

The projects below were excluded from the TPR Spreadsheet because the projects had actual or forecasted costs of less than one million dollars between 2019 and 2028. All three projects are operational and were not rescoped.

 Additional 450 MVAR of dynamic reactive support at San Luis Rey (i.e., two 225 MVAR synchronous condensers)

■ Placed in-service: 12/2017

Imperial Valley Flow Controller (IV B2BDC or Phase Shifter)

■ Placed in-service: 05/2017

15 MVAR Capacitor at Basilone Substation and 30 MVAR Capacitor at Pendleton Substation

Placed in-service: 10/2017 and 05/2018

Name	2019 Cap Ex	2020 Cap Ex	2021 Cap Ex	2019 – 2028 Cap Ex
San Luis Rey	\$94,208	\$955	\$3,566	\$98,729
IV Phase Shifter	\$444,358	\$199,966	\$25,552	\$669,876
Camp Pendleton Voltage Support	\$517	-	-	\$517





# **Capital Expenditures**

- **a. Line 68 CAST Security Upgrades** Data Field 56 (Current Projected Total or Actual Final Cost) is approximately 75 times the value of Data Field 57 (2019-2023 Actual Capital Expenditures)
  - Data Field 56 includes Cap Ex from prior to 2019 and Cap Ex costs from Field 58.

Project Name	Field 56 Total	Field 57 Total	Field 58 Total
	(\$000)	(\$000)	(\$000)
Cast Security Upgrades	\$123,731	\$1,644	\$80,760

- **b. Line 72 Kettner Rebuild** Data Field 56 (Current Projected Total or Actual Final Cost) is 58% higher than the value of Data Field 57 (2019-2023 Actual Capital Expenditures).
  - Data Field 56 equals the sum of Data Field 57 and Data Field 58

Project Name	Field 56 Total	Field 57 Total	Field 58 Total
	(\$000)	(\$000)	(\$000)
Kettner Rebuild	\$10,218	\$6,907	\$3,311





# **Blanket Budgets**

Explain how SDG&E develops budgets for these blanket budget programs and give examples of subprojects

- a) Line 128 Transmission CMP Non-HFTD Data Field 58 (Projected Capital Expenditures) shows approximately \$162.4 million in years 2025-2028.
  - Budgets estimated based on historical budget analysis and inspection cycles used to approximate number of compliance projects;
  - In combination with an average price per pole replacement to estimate budget needs;
  - Examples: GO195 infractions on transmission structures that will require replacement, including design, procurement and construction within a compliance timeline
- b) Line 103 Substation DC Reliability Upgrades Data Field 58 (Projected Capital Expenditures) shows approximately \$17 million in years 2025-2028
  - Budgets developed by identifying substations requiring upgraded Station DC standby power to support new network and protective relay equipment installations;
  - Coordinated between internal IT and substation engineering teams to develop list of future projects, prioritize according to criticality, and creates project forecasts;
  - Forecast aggregated into yearly budgets;
  - See table for a list of example projects

Substation						
Miramar	Carlton Hills	Sampson				
Scripps	Elliot	Monserate				
Cabrillo	Mesa Heights	Otay Mesa				
Chollas West	Laguna Niguel	Miguel				
Margarita	Coronado	Imperial Valley				
Alpine	San Onofre					





# **Hardware/Software Projects**

#### The 2026 SDG&E Network Refresh project is an IT based Common Plant project.

To allocate Common Plant Costs SDG&E first uses the FERC-prescribed labor ratio allocation method to allocate Common Utility Plant between Electric Plant and Gas Plant as shown on AD-10 of SDG&E's TO5 Cycle 6 filing below.

		SAN	DIEG	O GAS & ELECTRI	C COMPANY						
				STATEMENT AD							
		COST OF PLANT									
		BASE PERIO	D/TF	RUE UP PERIOD - 12	2/31/2022 PER BOOK						
				(\$1,000)							
				COMMON PLAN	Γ						
Line						Lin					
No.	Month	Description		Amounts	Reference	No.					
1	Dec-21	Total Common Plant Per Book	S	2,014,292	Form 1; Page 356; Accts 303 to 398; BOY	1					
2		Electric Split of Common Utility Plant		74.67%	Form 1; Page 356; Electric	2					
1 2 3 4 5		Total Common Plant to Electric Per Book	S	1,504,072	Line 1 x Line 2	3					
4						4					
5	Dec-22	Total Common Plant Per Book	S	2,126,037	Form 1; Page 356; Accts 303 to 398; EOY	5					
6		Electric Split of Common Utility Plant		73.17%	Form 1; Page 356; Electric	6					
7		Total Common Plant to Electric Per Book	S	1,555,621	Line 5 x Line 6	7					
6 7 8						8					
9						9					
10	Beginni	ng and End Period Average	S	1,529,847	Average of Line 3 and Line 7	10					
11						11					



# **Hardware/Software Projects Continued**

- SDG&E then uses the same FERC-prescribed labor ratio allocation method to allocate Electric Common Plant between Electric Transmission, Electric Distribution, and Electric Generation.
  - The labor ratio is updated annually using inputs from Page 354-355 of SDG&E's Annual FERC Form 1 and shown on Statement AI of SDG&E's TO5 Cycle 6 filing below.
  - The labor ratio allocation to Electric Transmission varies year to year but is typically around 20% of Electric Plant

	SAN DIEGO GAS	& ELECTRIC COM	<b>IPANY</b>						
	Si	atement AI							
	Wage	es and Salaries							
	Base Period & True-Up Period 12 - Months Ending December 31, 2022								
	(\$1,000)								
Line		FERC Form 1	+			Line			
No.		Page; Line; Col.	A	mounts	Reference	No.			
1	Production Wages & Salaries (Includes Steam & Other Power Suppl	354-355; 20; b	S	13,409		1			
2	<u>-</u>					2			
3	Transmission Wages & Salaries	354-355; 21; b		30,504		3			
4						4			
5	Distribution Wages & Salaries	354-355; 23; b		74,338		5			
6						6			
7	Customer Accounts Wages & Salaries	354-355; 24; b	-	18,524		7			
8			-			8			
9	Customer Services and Informational Wages & Salaries	354-355; 25; b		17,194		9			
10						10			
11	Sales Wages & Salaries	354-355; 26; b		*		11			
12						12			
13	Total Operating & Maintenance Wages & Salaries Excl. A&G		S	153,970	Sum Lines 1 thru 11	13			
14						14			
15	Transmission Wages and Salaries Allocation Factor			19.81%	Line 3 / Line 13	15			



# **Hardware/Software Projects Continued**

#### The A EFD-WMP-IPREDICT Project is an internally developed software project

- Software is currently booked to Electric Miscellaneous Intangible Plant.
- Electric Miscellaneous Intangible Plant is allocated using the same FERC-prescribed labor ratio allocation method as Electric Common Plant. Shown on Statement AD of SDG&E's TO5 Cycle 6 Filing below.

		Statement AD					
		Cost of Plant					
	Base	Period & True-Up Period 12 - Months	Ending Dece	mber 31, 2022			
		(\$1,000)					
Line		FEBC Form 1	(a)	(b)	(c) = [(a)+(b)]/2		Line
No.		Page; Line; Col.	31-Dec-21		Average Balance	Reference	No.
1	Total Steam Production Plant 1,3	204-207; Footnote Data (a)			\$ 573,458	AD-1; Line 18	1
2							2
3	Total Nuclear Production Plant 1,3	204-207; Footnote Data (a)			· -	AD-2; Line 18	3
4							4
5	Total Hydraulic Production Plant 1.3					AD-3; Line 18	5
6							6
7	Total Other Production Plant 1,3	204-207; Footnote Data (a)			539,342	AD-4; Line 18	7
8							8
9	Total Distribution Plant 2.3	204-207; Footnote Data (a); BOY and EOY	\$ 8,919,067	\$ 9,750,399	9,334,733	AD-5; Line 6	9
10							10
11	Transmission Plant 1, 3	204-207; Footnote Data (a)			7,476,381	AD-6; Line 18	11
12							12
13	Incentive Transmission Plant 1					AD-7; Line 18	13
14							14
15	Total Electric Miscellaneous Intangible Plant 2, 4	204-207; Footnote Data (a); BOY and EOY	191,894	112,870	152,382	AD-8; Line 6	15
16							16
17	Total General Plant 2.4	204-207; Footnote Data (a); BOY and EOY	518,903	571,823	545,363	AD-9; Line 6	17
18							18
19	Total Common Plant 2. 4		1,504,072	1,555,621	1,529,847	AD-10; Line 10	19
20				WATER STATE OF			20
21	Total Plant in Service				\$ 20,151,506	Sum Lines 1 thru 19	21
22							22
23	Transmission Wages and Salaries Allocation Factor				19.81%	Statement Al; Line 15	23
24							24
25	Total Transmission Plant & Incentive Transmission Plant				\$ 7,476,381	Line 11 + Line 13	25
26							26
27	Transmission Related Electric Miscellaneous Intangible	Plant			30,189	Line 15 x Line 23	27
28					400.040		28
29	Transmission Related General Plant				108,046	Line 17 x Line 23	29
30	T D.1 10				202.000	11 10-11 22	30
31	Transmission Related Common Plant				303,089	Line 19 x Line 23	31 32
33	Transmission Related Total Plant in Service				\$ 7,917,705	Sum Lines 25 thru 31	33





### **Fire-Related Costs**

#### Line 156, A CMP\_T3\_L3\_TL50003\_Z123862X\_1498

- a. Fire Name: Valley Fire
- **b. Cause:** The cause of the fire is officially classified as unknown. SDG&E equipment is not suspected of being related to the cause of the fire.
  - **a. If third-party, is SDG&E seeking recovery?** As the cause is unknown, SDG&E is not currently seeking recovery from a third party.
- **c. High Fire-Threat District (HFTD) Designation:** Tier 3, SDG&E will correct data field 16 to reflect the structure location.

#### Line 129, ACMP\_T0\_L2\_TL6925\_Z273965\_14637

- **a. Fire Name:** N/A Heartland Fire was the responding agency for the small localized incident, there is no record of this incident from CalFire.
- **b.** Cause: No cause given for the fire.
  - **a. If third-party, is SDG&E seeking recovery?** As no cause was given, SDG&E is not currently seeking recovery from a third-party.
- c. High Fire-Threat District (HFTD) Designation: Structure is located outside of the HFTD.







# Jamacha Rebuild Project

#### 7. Line 86, A APP-WMP: Jam 69kV Rebuild WO 2975539 - Overview of the project

The scope of the Jamacha substation project is to rebuild nearly all the transmission and distribution assets within and adjacent to the substation. The complexity of this project includes, but is not limited to:

- The substation must remain entirely energized throughout the project, requiring five phases to complete.
- Outages required by construction cannot occur during summer peak load from approximately June through September.
- Property size limitations require site development of retaining walls, which must be completed in phases.
- The property is bound on three sides by environmentally sensitive habitat, limiting the total workspace.
- Three quarters of the overhead transmission lines require relocation.
- · All distribution lines leaving the substation require relocation.
- High speed communication lines require relocation.
- The project was initiated, and initial phase completed, during a global pandemic.

This project requires coordination of multiple internal and external workgroups to ensure each work package in each phase is completed successfully, safely, and without service disruption to our customers.



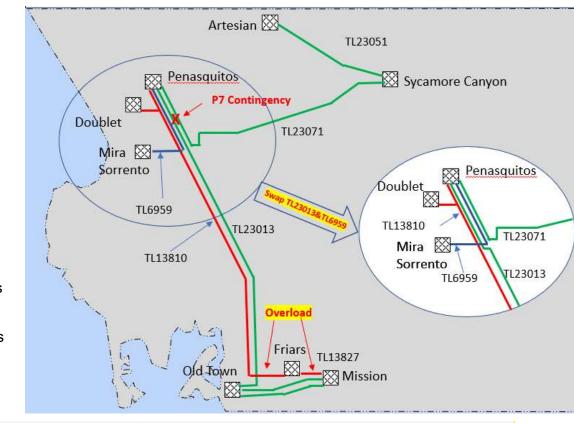
# Penasquitos-Mira Sorrento Project

8. Line 300, Rearrange TL23013 PQ-OT and TL6959 PQ-Mira Sorrento – Overview of project explaining overloads necessitating

rearrangement.

 CAISO's on-peak delivery assessment identified SDG&E TL13810 (Friars Doublet Tap) or path to be a constraint or overloaded.

- CAISO requires the overload to be addressed and recommended the rearrangement of TL23013 PQ-OT and TL6959 PQ-Mira Sorrento Project to remove the constraint and overload in the system as part of the CAISO 2022-2023 approved Transmission Plan
- Overall scope of work is to swap TL23013 with TL6959 so that TL23013 & TL23071 will not share same structures (TL23071 sharing structures with TL6959 and TL23013 sharing structures with TL13810).
- This proposal will require upgrading 2 miles of 138kV structures for 230kV operation.





### **Insulator Shanks**

#### 9. Line 158, ACMP\_T2\_L3\_TL23051\_Z619959X\_1463

#### a) Life cycle:

- a) Life cycle of shanks in porcelain insulators depends on several factors, including the quality of the material used, environmental conditions they are exposed to, and level of maintenance they receive.
- b) Generally, shanks are designed to be durable and withstand significant mechanical stresses over long periods.
- c) The ANSI/NEMA C29.2 standard, which covers suspension-type insulators made from wet-process porcelain or toughened glass, ensures that these insulators meet specific performance and safety criteria, contributing to their overall durability and reliability.
- b) Insulators are classified in FERC account 356 with a 64-year authorized life through 2023 as part of SDG&E's TO5 approved depreciation rates (FERC regulatory filing).
- a) SDG&E is in the process of a TO6 proceeding, the average service life (ASL) for 2024 and beyond are the subject to FERC filing approval.

#### b) SDG&E identified issues with other insulator shanks on its system:

a) As the system ages, maintenance of insulator shanks may be needed. Issues are detected through SDG&E's inspection program.



# **Circuit Breaker Monitoring**

**10. Line 31, 5987539 - A PENASQUITOS AGING INFRS. 138K B** – Overview of program including number of oil breakers, SF6, and vacuum breakers on the system, the life cycle of each, and an explanation of the maintenance costs for each type of breaker.

- SDGE's circuit breaker replacement program is based on the condition of the breaker, age, and/or specific type.
- When there is a specific model breaker that shows a trend of deteriorating condition, a project will be initiated to replace that model breaker.
- SDG&E also tries to prioritize replacing oil circuit breakers due to environmental impacts, age, and the increased cost of maintenance.
- Maintenance costs are based on the maintenance schedule frequency for each type of breaker.

Type of Breaker	Total Count	Life Expectancy	Minor Overhaul Maintenance	Major Overhaul Maintenance
Oil	126	50 yrs.	2.5 yrs.	5 yrs.
SF6	1,057	40 yrs.	6 yrs.	18-24 yrs.
Vacuum	2	24-40 yrs.	5-6 yrs.	18 yrs.



# **Projects On Hold**

### 11. Line 245, San Mateo Substation

• SDG&E is reviewing the necessity of the project remaining "on hold" and considering an alternative status. That decision has not been made yet.



### Remediation CMP Issues

**12a.** Lines **131-165** consist of projects described as "Remediation CMP issues in the Non-HFTD zone and HFTD zones". Please provide a detailed description of these projects, including the following topics:

- a) How SDG&E identifies these projects:
  - SDG&E conducts various inspection cycles that identify compliance infractions under GO95 Section I Rule
    Section III, and Section IV that need remediation, and they are entered into the CMP program.
- a) Which types of compliance issues these projects address:
  - Remediations might include, but not limited to, wire tensions, clearances, pole loading calculations, etc.
    These are given a levelling category in accordance with GO requirements and an associated remediation timeline.
- b) The number of compliance issues initially identified:
  - 137 remediation issues have been identified (2024)
- c) How many of the original compliance issues have been addressed and how many compliance issues remain:
  - 77 projects have been completed, 60 are in progress (2024 YTD).
- b) How SDG&E prioritizes the work:
  - Prioritized based on the levelling categorization of the infraction as defined under GO95 Rule 18, ensuring that the portfolio of projects meet the compliance deadlines identified by the level of infraction.



### Remediation CMP Issues

**12b. Line 131, A CMP\_T0\_TL630\_Z475724\_TT13577** – Provide list of assets, including manufacturer, and explain why it is being replaced. Including whether the asset failed in service

WO	TL	Structure	Project Type	Installatio n Year	Age (Years)	Reason for Replacement
2989637	TL630	Z475724	OT-FND-OD-SCADA	1960	63	Overutilized. Sound & bore reject, modeled with 79% RSM.
2909037	11030	Z101782	OT-FND-OD-SCADA	1993	30	Safety - Engineered Steel Pole for freeway crossings.

• Manufacturer data for previous structures is not available. Neither structure failed in service, though compliance criteria for replacement was met as stated in the table above.



### **ET Line Easements**

#### Line 12, A TL 682 LA JOLLA ET EASEMENT – Allocation Methodology

- The costs of the easement are allocated by the square footage of the surveyed and appraised area of each segment of the easement.
  - The Electric Transmission allocation of 74.72% is based on the square footage of the 50 ft. wide segments of the easement along transmission line TL682.
  - The Electric Distribution allocation of 25.28% is based on the square footage of the 15 ft. wide segments of the easement along distribution circuit c-214.

	ET	ED	Total
Sq. Ft.	881,888	298,399	1,180,287
Allocation	74.72%	25.28%	





# **Cost Benefit Analysis**

- a. Please explain how SDG&E develops these analyses, including the inputs and the source of the inputs and how benefits are quantified.
- b. SDG&E has included the Cost-to-Benefit ratio (CBR) for only a certain number of projects (28 out of 311 projects in the TPR Project Spreadsheet). Why have only these projects undergone a CBR? What is SDG&E's schedule to calculate CBRs for all the remaining projects? For example, how many projects will have their CBRs calculated by December 2024 and each quarter thereafter?
- c. Please explain how the values provided in Field 56 of the TPR Project Spreadsheet ("Current Projected or Actual Final Cost") are used in the cost benefit analysis. Are they the same? If not, please explain why.
- d. Are cost benefit analyses updated over time as higher value projects are completed or cost estimates are updated? What is the periodicity of the updates?



# **Cost Benefit Analysis**

a.

- i. **Project Inputs**: SDG&E considers a variety of project inputs, including safety, reliability, financial implications, customer impact, asset information, and capacity, to conduct a thorough evaluation of each investment
- **ii. Risk Reduction Benefit Calculation**: SDG&E's process entails providing project inputs to relevant value models, calculating outputs in specific natural units (e.g., SAIDI, SAIFI, Acres Burned, Serious Injuries Avoided), and then converting these into value measures using appropriate equivalencies.
- **iii. Value-Driven Decision Making**: The combination of all value measures gives us the total project risk reduction benefit, which informs SDG&E's decision-making process, ensuring we direct investments towards options that maximize value for our stakeholders and customers.
- **b.** SDGE's process for analysis of the cost-to-benefit (CBR) on projects is performed at the budget code level. This CBR analysis process went into place in 2023 so it isn't applicable to earlier projects. Additionally, the following criteria was used to exclude projects from analysis: total capital cost below \$500,000 and projects more than 1 year into the future. With the filters applied, there are an additional set of projects that SDGE expects to have scored by the next TPR data request in December.
- **c.** The values in Field 56 are the total project cost (actual cost incurred + projected future cost), this value is the "cost" in the cost benefit ratio.
- **d.** Project intake for FERC projects occur once a year for projects identified to start in the following calendar year. Once projects are analyzed, the benefit is only updated if the scope of the project benefits change. The cost of the projects are updated annually. **SDGE**



### **Work Order Authorizations**

a. Describe in further detail what the process of "Work Order Authorization" entails for each of the projects and what differentiation there might be between the 304 projects with that input.

These seven IT related projects do utilize the Work Order Authorization process as part of SDG&E's Approval and Commitment policy. The answers for data field 32 will be revised to reflect that.

All Work Order Authorizations are governed by SDG&E's Approval and Commitment Policy. The Approval and Commitment Policy sets the approval thresholds for SDG&E's financial commitments, or potential commitments. As part of that governing policy, the Work Order Authorization provides evidence of review and approval for SOX and internal control documentation purposes. Differentiation between internal SDG&E departments submitting Work Order Authorizations might exist in the formatting of its business justification, but all Work Order Authorizations follow the same financial commitment approval requirements specified in SDG&E's Approval and Commitment Policy.





