Pacific Gas and Electric Company®

Electric Distribution System Pilot Program Scope

Date: 11/22/2022

Project Ground Line Distribution System (GLDS) on Woodside 1101 Circuit

Order #: 35283938

Initiator (name/organization) [redacted] (Name) | Grid Design (Organization)

Proposed equipment, design specifics and functions:

This pilot is intended for exploring the feasibility of using an above ground or shallow trench method for the installation of UG primary distribution cables to help reduce the costs associated with traditional open trenching. The GLDS consists of a cable tray system made of thermoplastic housing CIC (cable in conduit) and encased in fireproof geopolymer material.

Estimated cost, benefits, and impact of the equipment:

Estimated Cost (Quote from Vendor):

- GLDS Components - $958,560
- Geopolymer Material - $150,000
- Earth Anchors for GLDS - $24,000
- Installation by Vendor's 3rd Party Construction Crew (Optional) - $850,000

Benefits:

- The GLDS introduces a new method of installing UG primary cable systems to help reduce the costs associated with UG trenching. The system can be installed quickly since it can be applied directly above ground or buried slightly below grade.

Internal

Electric Distribution System Pilot Program Scope

Equipment need for the PG&E distribution system:

The scope of work includes undergrounding approximately 0.75 miles of existing single phase 12kV, install 4 pad-mounted XFMR's, and 2 pad-mounted 3-way Junctions. Transitions into these pad-mounted facilities will be constructed accordingly per our Standards with the CIC system, while the cable runs between them will be fully encased inside the GLDS with the geopolymer material.

Pilot location and length:

The pilot will be installed on the Woodside 1101 circuit located in a residential area along Allen Rd in Redwood City. This area was chosen based on the CWSP System Hardening initiative to harden existing facilities in a high fire risk area. Planned construction to commence on 4/1/2023 and anticipated release for service by 5/1/2023. The project will be evaluated until the end of 2023 to develop its application criteria, establish best practices and monitor the product's performance.

Success / Fail Criteria:

Success

- GLDS meets the specifications:
  - Prove the product's resiliency in a live environment with real customers and public exposure
  - The system can stay in place without any significant shifting when placed above ground in some locations
  - Show that the system significantly reduces installation costs and construction time compared to traditional open trenching

Failure

- If any of the identified success measures fail
- Lack of resources to collaborate and complete its installation
- Delays on the project timelines

Internal

Success / Failure: *This section to be filled out after the pilot has ended or when a decision can be made.*

- *If pilot is successful,*
  - *Provide the data gathered from the pilot and detail if it was acceptable based on the success criteria*
  - *Continue the TD-2950P-01 process*
- *If pilot has failed,*
  - *Provide the data from the pilot and explain why it has failed*
  - *Provide contingency plan to remove failed pilot device and replace with a PG&E approved equipment.*

Project Team Coordination - Personnel / Departments Involved in the Pilot:

Department or Group	Coord Req'd? Y/N	LANID
Grid Design	Y	[redacted]
Distribution Standards Engineering	Y	
Work Methods and Procedures	Y	
UG Project Management	Y	
Distribution Planning	Y	
Electric Project Management	Y	

Notes:

- Project site has had several walk-downs with respective SME's to determine feasibility of proposed route
- Pilot location is a segment on the Woodside 1101 CWSP System Hardening Project. A tap-line on this section is also being undergrounded on a different project and is dependent on one of the two 3-way PM Junctions for tie-in
- GLDS will also be tested independently at NEETRAC sponsored by Southwire (a PG&E approved Vendor)
- Pilot location has very high-profile customers served from this distribution line

Reviewers

Name	Signature	Date
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		

Pilot Approval

Name	Signature	Date
[redacted]		

EDRS # **TBD**