APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY FOR ANGELES LINK PHASE 2 A.24-12-011

DATA REQUEST CalPA-SCG-DR05
Date Requested: July 18, 2025, Submitted: August 1, 2025

The California State Geoportal hosts a California Energy Commission Map of all Natural Gas Power Plants in California, found here: (California Power Plants - Dataset - California Open Data). In multiple comments delivered in the PAG[1], Southern California Generation Coalition (SCGC) noted the need for Underground Hydrogen Storage (UHS) to be located nearby generation demand in basin.[2]

Questions 1-2 will use excerpts from the CEC dataset and refer to SCGC's Comments.

FN 1 See, e.g., Southern California Generation Coalition Comment on Angeles Link Phase I Draft Production Planning & Assessment (August 21, 2024); SCGC Comment on Angeles Link High Level Economic Analysis & Cost Effectiveness Draft Report (September 6, 2024).

FN 2 "Additionally, the location of storage is critical. Stored hydrogen will behave hydraulically in a pipeline similarly to natural gas. The fuel will travel at around 20 miles an hour. Consequently, the storage should be located as close to the ramping demand as possible. The storage should be located in or near the Los Angeles Basin to be useful for fast ramping LA Basin power plants." SCGC Comment on Angeles Link High Level Economic Analysis & Cost Effectiveness Draft Report (September 6, 2024)

QUESTION 1:

In its Angeles Link Phase 1 Final Demand Study, SoCalGas describes Los Angeles Department of Water and Power (LADWP) efforts to power their natural gas plants with hydrogen to reduce carbon emissions:

> "On February 8, 2023, the Los Angeles City Council voted to convert LADWP's Scattergood Generating Station Units 1 and 2 from methane gas plants to hydrogen-ready plants, with an in-service date of December 30, 2029. LADWP has identified this project as a crucial step for the city to meet its goal of being 100% carbon-free by 2035.127 LADWP plans to eventually implement conversions in other gas plants like the Harbor and Haynes and Valley Generating Station.128 Using the LADWP's plans to convert the 830 MW Scattergood plant to 100% clean renewable hydrogen as an example, it is expected that hydrogen will be highly prioritized as an alternative fuel in the power sector." Final Demand Study, at 57.

For the four LADWP Generating plants mentioned, shown in Table 1 below with their respective Units and Latest Capacity figures (in MWs) as described by the CEC's dataset, please identify:

- SoCalGas's current knowledge of the timeline for the plants and units to move to 100% hydrogen (whether renewable or otherwise), include in your response all known intermediary steps including blends of natural gas and hydrogen as defined by hydrogen blend percentages;
- Estimate of Volume of Hydrogen (in tons per year – "TPY") required to service 100% of plant capacity (given current efficiencies);
- Whether these plants and units will be served by an in-basin UHS system as per SCGC's comments (if Yes, which UHS Reservoir will meet this need?);
- Whether these plants will require aboveground hydrogen storage locally to achieve full capacity while being fueled by 100% hydrogen.

Table 1 – LADWP Plants

Plant Name	Units	Latest Capacity (MW)
Scattergood	Unit #1, Unit #2, Unit #3, Unit #4, Unit #5, Unit #6, Unit #7	876.02
Harbor	#1A & #2A, CC (1, 2, 5), GT, Unit #1, Unit #10, Unit #11, Unit #12, Unit #13, Unit #14, Unit #2, Unit #5, Unit #6, Unit #7, Unit #8, Unit #9	836
Haynes Generating Station	Unit #1, Unit #10, Unit #11, Unit #12, Unit #13, Unit #14, Unit #15, Unit #16, Unit #2, Unit #3, Unit #4, Unit #5, Unit #6, Unit #8, Unit #9	1730.34
Valley Generating Station	Unit #1, Unit #2, Unit #3, Unit #4, Unit #5, Unit #6, Unit #7, Unit #8	681.96

RESPONSE 1:

SoCalGas objects to the request on the grounds it is unduly burdensome to the extent it seeks information that is publicly available and thus is equally available to the requesting party. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

Bullets 1 and 2: Refer to the draft LA100 Plan[1] model presented in the Los Angeles Department of Water and Power (LADWP) Advisory Group Meeting No. 6 dated December 5, 2024, which assumed a full transition from natural gas to green hydrogen by 2035 and projected hydrogen consumption across all its in-basin generation facilities from 2035 to 2045.

Note: The Scattergood Hydrogen-Ready Modernization project is designed to replace Units 1 and 2 at Scattergood Generating Station with a system that can use green hydrogen fuel. On February 8, 2023, the Los Angeles City Council approved LADWP to move forward with a request for proposal process. Please refer to the LADWP 2024 Strategic Long Term Resource Plan for further details.[2]

Bullets 3 and 4: SoCalGas did not perform a detailed analysis of these plants. As part of the Angeles Link Phase 1 activities, SoCalGas prepared a Production Planning & Assessment (Production Study) which provides a preliminary evaluation of third-party hydrogen storage.[3] SoCalGas has proposed that third-party storage resources would be assessed in more detail in Phase 2.[4]

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1 LADWP Draft LA100 Plan, dated December 5, 2024, at slide 65-66 is available at: www.ladwp.com/sites/default/files/2024-12/LA100%20Plan%20AG%206%20SLTRP%20and%20DSA%20Final.pdf

2 LADWP 2024 Strategic Long Term Resource Plan (SLTRP) Meeting No. 2 at 66 is available at: https://www.ladwp.com/sites/default/files/2024-04/AG%20Meeting%20%232%20Assumptions%20Package%20Presentation%204.18.24%20reduced%20size.pdf

3 Angeles Link Phase 1 Production Study is available at: www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Production-Planning-&-Assessment.pdf

4 Angeles Link Phase 2 (A.24-12-011), Testimony of Amy Kitson (Chapter 3 Project Development and Programmatic Activities) at AK-5 to AK-6 is available at: https://www.socalgas.com/sites/default/files/alproject/phase2/A.24-12-XXX_TestimonyCh.3-ProjectDevelopmentandProgrammaticActivities_A.Kitson_PDFA.pdf

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QUESTION 2: Table 2 below lists the remaining natural gas-fueled power plants in the three LA Basin Counties (Los Angeles County, Orange County, San Bernardino County) from the CEC's dataset with a Latest Capacity greater than 20 MW.

For these natural gas plants, please identify:

- Whether SoCalGas is aware that the plant is currently investigating or already embarking upon a transition to fueling with either natural gas/hydrogen blends or 100% hydrogen;
- Which in-basin SoCalGas UHS field would be available to service these power plants in the event they do transition to 100% clean renewable hydrogen;
- Whether these plants will require aboveground hydrogen storage locally to achieve full capacity while being fueled by 100% clean renewable hydrogen.

Table 2 – Other Plants in LA Basin Counties

Plant Name	Latest Capacity (MW)
Alamitos	1135.27
Mountainview Generating Station	1110
High Desert Power Project	854.9
Huntington Beach Energy Project	696
Alamitos Energy Center	693
El Segundo Energy Center	526
Walnut Creek Energy Park	500.5
Watson Cogeneration Co	398
Magnolia	387.6
Long Beach Generation LLC	260
Glenarm	226.76
Huntington Beach (AES)	215
Canyon Power Plant	200.48
Chevron El Segundo Refinery Cogeneration	183.11
Malburg Power Plant	158.8
Stanton Energy Reliability Center	121
Olive	109.8
Harbor Cogeneration Co	107.45
Torrance Refinery	91.3
Los Angeles Refinery (Tesoro)	83
Agua Mansa Power Plant	60.5
Lake 1	60.5
Carson Cogeneration Company	60
Barre Peaker	49
Center Peaker	49
Etiwanda Peaker	49
Mira Loma Peaker	49
Grayson	49
THUMS	47.8
Alliance Drews (Agua Mansa Colton)	45.56

Plant Name	Latest Capacity (MW)
Alliance Century	45.56
UCLA Energy Systems Facility	43
Berry Placerita Cogen	42.8
Ontario Mill (New-Indy Containerboard)	32
Chino Cogeneration	31.2
Civic Center Cogen	23

RESPONSE 2:

SoCalGas objects to the request on the grounds it is unduly burdensome to the extent it seeks information that is publicly available and thus is equally available to the requesting party. Subject to and without waiving the foregoing objection, SoCalGas responds as follows:

Bullet 1: SoCalGas is not aware whether each plant is currently investigating or already embarking upon a transition to fueling with either natural gas/hydrogen blends or 100% hydrogen. SoCalGas understands that the Magnolia Power Project and Lake 1 have expressed potential interest.[5]

Note: SoCalGas has proposed to build on its Phase 1 studies and perform a more in-depth analysis in Phase 2 to identify operational characteristics and geographical locations of potential end users and evaluate third-party connection considerations to help inform the selection of a preferred route with more precision.[6]

Bullets 2 and 3: Please refer to Response 1.

[5] City of Burbank Water and Power 2024 Integrated Resource Plan Report available at: https://burbank.granicus.com/MetaViewer.php?view_id=49&clip_id=10328&meta_id=421247

[6] Angeles Link Phase 2 proceeding (A.24-12-011), Direct Testimony of Amy Kitson (Project Development and Programmatic Activities) at AK-13 is available at: https://www.socalgas.com/sites/default/files/alproject/phase2/A.24-12-XXX_TestimonyCh.3-ProjectDevelopmentandProgrammaticActivities_A.Kitson_PDFA.pdf.