

From: [Doug Boccignone](#)
To: [O'Connor, Kevin](#); [Benabente, Julie](#)
Cc: [Barry Flynn](#); [Struyk, Zachary](#); [Bachman, Mark](#); [Ekern, Bill](#); [Elkins, Luisa](#); [Nathanael Miksis](#)
Subject: Re: Flynn Memo on Electrical Interconnection Options to Serve the Google Project - CONFIDENTIAL
Date: Sunday, December 15, 2019 5:11:50 PM
Attachments: [DSA Power Options 20191216.pdf](#)
[DSA Power Options 20191216.pptx](#)

[External Email]

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Attached is a presentation in Powerpoint and PDF format summarizing our findings and recommendations for our discussion with Google Monday morning. Note that the presentation incorporates additional information related to SB1339 microgrid uncertainties that was discussed during the December 12 CEC workshop following the release of the Flynn RCI memo on December 9.

Doug

Doug Boccignone
Principal
Flynn Resource Consultants Inc.
5440 Edgeview Drive
Discovery Bay, CA 94505
888-634-7509 (phone and fax)
dougbocc@flynnrci.com

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From: Nathanael Miksis <NMiksis@flynnrci.com>
Date: Monday, December 9, 2019 at 2:00 PM
To: "O'Connor, Kevin" <Kevin.Oconnor@sanjoseca.gov>, "Benabente, Julie" <Julie.Benabente@sanjoseca.gov>
Cc: Barry Flynn <brflynn@flynnrci.com>, Doug Boccignone <dougbocc@flynnrci.com>, "Struyk, Zachary" <Zachary.Struyk@sanjoseca.gov>, "Bachman, Mark" <Mark.Bachman@sanjoseca.gov>, "Ekern, Bill" <Bill.Ekern@sanjoseca.gov>, "Elkins, Luisa" <Luisa.Elkins@sanjoseca.gov>

Subject: Flynn Memo on Electrical Interconnection Options to Serve the Google Project -
CONFIDENTIAL

Good Afternoon SJCE Team,

Please find attached Flynn RCI's memo delivered pursuant to Task 1 of Service Order 6.

We look forward to reviewing the memo and the overall initiative with you, beginning with our next scheduled check-in this coming Wednesday.

Best regards,

Nathanael Miksis
Flynn Resource Consultants Inc.
5440 Edgeview Drive
Discovery Bay, CA 94505
888-634-0009 (phone and fax)
nmiksis@flynnrci.com

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Diridon Station Area Google Project Power Service Options

Flynn RCI Preliminary Evaluation

December 16, 2019

Agenda

1. Overview/Assumptions
2. Google Project Power Service Options
3. Flynn RCI Findings
4. Flynn RCI Recommendation
5. Next Steps
6. Discussion

Overview/Assumptions

- ❑ Google Project represents approximately 80 acres of a 240 acre Diridon Station Area (DSA).
- ❑ Peak Google load is expected to be about 40 MW. Greater DSA could be 70 MW.
- ❑ Google Project includes multiple parcels, public rights of way, premises and tenants.
- ❑ PG&E/San José Franchise Agreement gives PG&E franchise to serve all electric customers within San Jose and to own and operate needed infrastructure in public rights of way. San José can withdraw franchise for all/portions of City.
- ❑ Google and San José have a preference for a non-PG&E distribution system to facilitate reliable, sustainable, resilient electric service.

Google Project Power Service Options

Point(s) of Interconnection	Service Voltage	Distribution Grid Owner/Operator	Interconnection Customer	Tariff
New Google Project Substation	115 kV	San José	San José	PG&E Transmission Owner Tariff, CAISO Tariff
Multiple interim connections to existing PG&E facilities	12 kV or ??	San José & PG&E	San José	PG&E Wholesale Distribution Tariff (WDT), CAISO Tariff
New Google Project Substation	115 kV	Google	Google	E-20T
Each Google Facility Meter (and Tenant Premises Meters Where Applicable)	240V/480V	PG&E	Google (and Tenants)	E-20P, E-19P, A10, Others

Flynn RCI Findings

- ❑ San José can take wholesale transmission and/or distribution service to serve customers within the City (under the PG&E FERC TO Tariff or Wholesale Distribution Tariff and CAISO Tariff), most likely at a transmission level point of interconnection within the DSA for the Google Project.
- ❑ San José can revoke all or part of PG&E franchise in the city, and provide power services itself, or create a new franchise with another entity to do the same.
- ❑ E20T retail service to the Google Project is not consistent with current PG&E CPUC-approved Electric Rules requiring PG&E ownership of facilities within public rights of way and requiring separate PG&E metering for each building and individual tenants
- ❑ There is uncertainty about implementation of microgrid service standards mandated by SB 1339, required impact studies, rates and tariffs, and the outcome of a working group to codify standards and protocols needed to meet California electrical corporation and Independent System Operator microgrid requirements.
 - Optimization of sizing and dispatch of storage likely to be more efficient against wholesale requirements and markets vs. retail.
- ❑ Distribution facility design specifications may not need to be provided for TO Tariff interconnection, but would be required for WDT and retail interconnections.

Flynn RCI Recommendation

- ❑ Flynn RCI's recommendation is for San José to apply for 115 kV interconnection under the TO Tariff.
 - Utilizing the FERC TO Tariff has the advantage of relying on standard interpretations of federal law (precedent) and existing regulatory and legal pathways, with strong rights for local publicly-owned utilities, and transmission open access principles embodied in the tariff and FERC rule-making.
- ❑ San José and Google should reach agreement on the management, maintenance, operations, data control and acquisition, and value optimization of the distribution system, and preserve the potential to realize benefits of scale through future expansion of the distribution system throughout the DSA.

Next Steps

- ❑ Obtain City approval and submit TO Tariff interconnection application (Feb 2020)
- ❑ Further develop physical electrical distribution system plans (Feb – May 2020)
- ❑ PG&E System Impact Study (SIS)/Facilities Study (FS) (Mar – Sep 2020)
- ❑ Negotiate grid/power supply services agreement(s) (May – Sep 2020)
- ❑ Obtain City approval for providing electric service to Google Project/DSA (Oct 2020)
- ❑ Negotiate and execute PG&E Interconnection Agreement (IA) (Nov 2020 – Jan 2021)

Discussion

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