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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of Its Proposals and Cost Recovery for Improvements to the Click-Through Authorization Process Pursuant to Ordering Paragraph 29 of Resolution E-4868. (U39E)	A.18-11-015
And Related Matters	A.18-11-016 A.18-11-017

JOINT OPENING BRIEF OF OHMCONNECT, INC., CALIFORNIA EFFICIENCY + DEMAND MANAGEMENT COUNCIL, AND LEAPFROG POWER, INC.

Greg Wikler
Executive Director
California Efficiency + Demand Management Council
1111 Broadway Suite 300
Oakland, CA 94607
Tel: (925) 286-1710
Email: gwikler@cedmc.org

Andrew Hoffman
Chief Development Officer
Leapfrog Power, Inc.
1700 Montgomery Street, Suite 200
San Francisco, CA 94111
Tel (415) 409-9783
Email: marketdv@leap.energy

Vidhya Prabhakaran
Katie Jorrie
Davis Wright Tremaine LLP
Suite 800
505 Montgomery Street
San Francisco, CA 94111-6533
Tel. (415) 276-6500
Fax. (415) 276-6599
Email: vidhyaprabhakaran@dwt.com
Email: katiejorrie@dwt.com

Attorneys for OhmConnect, Inc.

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

CPUC Decisions

CPUC Rules of Practice and Procedure

SUMMARY OF RECOMMENDATIONS

1. Direct the IOUs and stakeholders to develop a Service-Level Agreement that sets expectation of service for data delivery, delivery system uptime, click-through uptime, and data accuracy at 99.8%;

2. Direct the IOUs to provide DRPs with tools and resources to assist with determining the cause for a customer's failure to enroll;

3. Ensure the IOUs do not discriminate against third-party DRPs; and

4. Require the IOUs improve the customer experience during the click-through authorization process so as not to discourage customer participation in DR.

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I. INTRODUCTION

Pursuant to Rule 13.11 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure and Administrative Law Judges ("ALJs") McGary and Hecht's April 14, 2021 *E-Mail Ruling Regarding Off-Calendar Evidentiary Hearings and Document Only Evidence Process*,[1] OhmConnect, Inc. ("OhmConnect"), California Efficiency + Demand Management Council ("CEDMC"), and Leapfrog Power, Inc. ("Leapfrog") (collectively "Joint Parties") respectfully submit this opening brief.[2]

California is at a critical juncture, facing major grid reliability issues due to the climate crisis. Last summer, widespread extreme weather-induced power outages occurred during an

[1] *See* April 14, 2021 ALJ McGary and Hecht's "E-Mail Ruling Regarding Off-Calendar Evidentiary Hearings and Document Only Evidence Process", available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M377/K391/377391066.PDF.

[2] Pursuant to the Commission's Rules of Practice and Procedure 1.8(d), OhmConnect confirms that CEDMC and Leapfrog have authorized OhmConnect to file this Joint Opening Brief on behalf of their organizations.

extended heat wave.[3] In response, the Commission approved several actions and new programs by the investor-owned utilities ("IOUs") to improve reliability in advance of future extreme weather events.[4] One major component was the adoption of a large, new Emergency Load Reduction Program ("ELRP") that will use customers in IOU and third-party demand response provider ("DRP") portfolios to provide emergency load drop and avoid the need to trigger power outages. The Commission rightly recognized that third-party demand response, facilitated through the ELRP, the existing Demand Response Auction Mechanism ("DRAM"), or other mediums, can be a powerful tool to mitigate extreme weather events.

However, DRPs face significant impediments to their customer growth and to providing existing customers with a positive customer experience due to complications with the click-through authorization process and related issues that are completely outside of the DRPs' control. The IOUs act as the Meter Data Management Agents ("MDMAs") and are the exclusive providers of customer smart meter data. Therefore, DRPs are solely reliant upon IOU implementation of the click-through and data sharing processes. Several aspects of the IOUs' performance in managing click-through and data delivery processes would be wholly unacceptable in a competitive marketplace.

According to the information published by Pacific Gas and Electric Company ("PG&E") and Southern California Edison Company ("SCE"), thousands of customers who enter the click-through process do not complete it.[5] And for those customers who do successfully authorize data

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[3] *See* January 13, 2021 "Final Root Cause Analysis: Mid-August 2020 Extreme Heat Wave", available at http://www.caiso.com/Documents/Final-Root-Cause-Analysis-Mid-August-2020-Extreme-Heat-Wave.pdf.

[4] *See* D.21-02-028; *see also* D.21-03-056.

[5] *See* PG&E "Performance Metrics for Electric Rule 24", available at https://www.pge.com/en_US/for-our-business-partners/performance-metrics/performance-metrics.page; *see also* SCE "Performance Metrics - last 30 days", available at https://www.sce.com/PerformanceMetrics.

sharing through the click-through process, many still suffer significant and unpredictable instances of missing, incorrect, and/or delayed data. The volume of data issues, the impact of outages, and the general slow response times to fix these issues are all proof that the IOUs fail to provide adequate MDMA services.

Despite this substandard service, the proposed applications by the IOUs fail to address the root challenges that the DRPs face and simultaneously fall short of the requirements of Ordering Paragraph 29 of Resolution E-4868. The Commission must not allow the IOUs' unwillingness to raise their standards with respect to their click-through authorization processes lead to ratepayer harm and harm the public interest in expanding third-party demand response. Therefore, the Commission should:

1. Direct the IOUs and stakeholders to develop a Service-Level Agreement that sets expectation of service for data delivery, delivery system uptime, click-through uptime, and data accuracy at 99.8%;

2. Direct the IOUs to provide DRPs with tools and resources to assist with determining the cause for a customer's failure to enroll;

3. Ensure the IOUs do not discriminate against third-party DRPs; and

4. Require the IOUs improve the customer experience during the click-through authorization process so as not to discourage customer participation in DR.

Importantly, by adopting these proposals the Commission will not require the IOUs to provide "gold-plated IT support" as certain parties allege,[6] but will ensure an acceptable level of IOU service to their ratepayers and set clear performance expectations for the IOUs' click-through authorization service and other MDMA services.

[6] Ex. SDGE-0207 (Rebuttal Testimony of Douglas S. White), at p. 4.

II. THE COMMISSION SHOULD DIRECT THE IOUS AND STAKEHOLDERS TO DEVELOP A SERVICE-LEVEL AGREEMENT THAT SETS EXPECTATION OF SERVICE FOR DATA DELIVERY, DELIVERY SYSTEM UPTIME, CLICK-THROUGH UPTIME, AND DATA ACCURACY AT 99.8%.

The Commission should require the IOUs to follow standard industry practices by developing a Service-Level Agreement (SLA) that meets market standard levels. The Commission has stated that California regulated utilities must keep "pace with current conditions and today's prevailing standards."[7] The Commission regularly adopts and revises existing service quality measures and other standards applicable to regulated utilities to reflect current technological and business conditions.[8] The Commission should continue its approach of using industry standards in its analysis of the Applications to ensure that California ratepayers have access to new and existing valuable services and are not burdened by outdated systems that could easily be updated.

A. SLAs Are an Industry Standard for IT Systems

An SLA is a common agreement for IT systems.[9] As Mission:data witness Murray testifies, "[a]n SLA specifies the performance of an information technology ("IT") system. It is the norm in IT agreements between a user and an IT platform provider."[10] All three IOUs classify their systems as an IT system or containing components of an IT system.[11] Furthermore,

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[7] *See Order Instituting Rulemaking 02-12-004,* initiating a proceeding "to adopt revisions to existing service quality measures and standards applicable to telecommunications carriers reflecting current technological and business conditions."

[8] The Commission has adopted national standards for the IOUs' annual reliability reporting and holds regulated entities to accepted industry standards in various general orders pertaining to construction, operation, and maintenance. *See* D.16-01-008, at p. 4, which adopted the Institute of Electrical and Electronics Engineers (IEEE) 1366-2003 reliability standards; *see also* General Order 75-D and General Order 167.

[9] Ex. OHM-0601 (Prepared Testimony of OhmConnect), at p. 7.

[10] Ex. MD-0500 (Prepared Testimony of Michael Murray for Mission:data), at p. 6.

[11] Ex. PGE-0001 (PG&E Updated Prepared Testimony), at pp. 2-3; Ex. SCE-0100 (Updated Testimony of Southern California Edison Company), at p. 49; Ex. SDGE-0207, at p. 4.

Resolution E-4868 requires that the IOUs address "upgrades to the information technology infrastructure needed for click-through authorization processes."[12] Thus, the IOU click-through systems fall under an IT system classification and therefore deviate from the industry standard by not including an SLA as part of each solution.

An SLA requires a key component: the definition of an acceptable level of service. Standard SLAs define these service-level expectations, which "are a technology industry standard for Information Technology (IT) systems that clearly defines the expected level of service (i.e. performance) of an entity providing a service to another entity."[13] Presently, and despite the click-through solutions' clear classification as an IT system, neither the IOUs nor the Commission has defined service-level expectations, including expectation of uptime, availability, and accuracy. To generate an SLA, service-level expectations need to be established and the proposed click-through solutions establish no such expectations.

An SLA that targets 99.8% or above is standard for IT service providers. Witness Murray shares that he has "seen SLAs of "three nines" (99.9%) for many cloud based service providers. That is consistent with major cloud providers Microsoft, Oracle and Amazon, who guarantee 99.9%+ uptime."[14] Witness Murray's findings are consistent with the standards delineated in Exhibit OHM-0609, which shows companies that provide SLAs for 99.9% (Atlassian), 99.95% (Oracle, Google, and Amazon), 99.975% (Alibaba), and 99.99% (IBM).

SDG&E's witness Umali argues that a comparison to "tech giants" like Amazon, Oracle, and Microsoft is "misplaced" because these companies' "sole business centers on the provision

[12] *See* Resolution E-4868, at 105-106 (Ordering Paragraph 29).

[13] Ex. OHM-0601, at p. 2

[14] Ex. MD-0500, at p. 12.

of tech services, and thus necessarily adopt high performance standards when it comes to their IT products."[15] However, the cloud services provided by these three named companies is not the "sole" business for these three companies. Amazon runs an enormous online shopping platform besides its streaming services. Oracle primarily sells on-premise software. Microsoft sells personal computers, operating systems, software, and other hardware. What these three companies demonstrate is that it *is* possible to have a company that can provide multiple types of services at high levels. The three IOUs can also be held, at a minimum, to at least *some* standard of expected service.

Further claims of MDMA platform complexity should not excuse the applicability of an SLA. All three IOUs provide testimony that the MDMA systems are extremely complex, with SCE claiming that the services are "more complex from that of a cloud platform or SaaS provider."[16] Each IOU system is unique and has its own set of complexities. However, it is unlikely that the systems are *more* complex than the systems of companies such as Amazon or Google, each of which has dozens of servers serving millions of customers spread across the entire globe.[17] Amazon and Google each provide separate SLAs (around 125 for Amazon and around 50 for Google) that encompass specific components of their IT infrastructure. Doing so acknowledges the complexity of their systems while still taking responsibility for system performance.

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[15] Ex. SDGE-0208 (Rebuttal Testimony of Neil Umali for SDG&E), at p. 5

[16] Ex. SCE-0101 (Rebuttal Testimony of SCE), at p. 10; Ex. PGE-0002 (PG&E Rebuttal Testimony), at p. 1-18; Ex. SDGE-0207, at p. 4.

[17] *See* "Discover our data center locations", available at https://www.google.com/about/datacenters/locations/; *see also* "Global Infrastructure", available at https://aws.amazon.com/about-aws/global-infrastructure/.

In addition, and even more telling, MDMAs exist *today* that have developed an SLA. For example, Smart Meter Texas (the Texas MDMA) agreed to a set of business requirements that set a 99.5% standard for numerous MDMA services that the California IOUs similarly provide.[18] Similarly, a pending settlement between Dayton Power and Light Company and intervenors also adopts guidance to operate the GBC platform with an uptime of at least 99%.[19] Thus, even MDMAs with self-described "complex" systems can still establish SLAs that identify a certain service-level expectation.

B. The Lack of an SLA Has Created Costly Inconsistencies in the Execution of the Click-Through Solution

The lack of an SLA has created substantial variance in the services provided. For example, the uptime for the click-through platforms ranged from 97.3% for PG&E to 98% for SCE to 97.5% (revised downward from 98.9% following additional analysis by OhmConnect provided to SDG&E on its systems) for SDG&E.[20] Therefore, the corresponding percentage of *downtime* for each of these IOUs is up to 13.5 times greater than the 0.2% of downtime proposed by Mission:data and OhmConnect, and over 25 times greater than the lowest threshold (Atlassian's) detailed above. The variance is even starker when comparing the uptime of data

[18] *See* January 29, 2018 "Joint Motion to Admit Stipulation, Affidavit of Notice, and Supporting Testimony Into Evidence," Attachment 1, available at https://interchange.puc.texas.gov/search/documents/?controlNumber=47472&itemNumber=100, which requires 99.5% of all account registration attempts, 99.5% availability of the GUI, 99.5% availability of the API, 99.5% availability of the FTP sites, 99.5% availability of the data download functionality, correct processing of 99.5% of all CSP agreement transactions, and correct processing of 99.5% of all on-demand reads.

[19] *See* October 23, 2020 "Stipulation and Recommendation" between The Dayton Power and Light Company and Signatory Parties, available at https://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=a67df48e-b382-44b6-b8e6-c4836002a024.

[20] Ex. OHM-602 (PG&E's Response to OhmConnect Data Request 1), at pp. 1-2; Ex. OHM-0604 (SCE's Response to OhmConnect Data Request 1), at p. 3; Ex. OHM-0606 (SDG&E's Response to OhmConnect Data Request 1), at pp. 1-2; Ex. OHM-0608 (Excerpt of SDG&E's Response to OhmConnect Data Request 3), at p. 1.

delivery among the three IOUs – especially given the troubling finding that SCE cannot even track its data delivery systems.[21] PG&E successfully delivered data for 97.9% of days (*i.e.*, 321 out of the 328 days analyzed), while SDG&E states 100% delivered data with unquantified "rare exceptions."[22] Although SCE does not have data to report, OhmConnect witness Anderson describes that its "informed experience is that SCE has been delayed on customer and interval data to a greater extent than its IOU counterparts."[23]

The number of Data Intake Issue forms ("data issue forms") can be a measure of the functionality of the click-through systems. A data issue form is created when a DRP notices a breakage or issue with the MDMA's click-through solution following the process established by the Commission.[24] Due to SCE's inability to provide data on its data delivery failure rate, the Commission is forced to use a proxy for the number of data issue forms filed with SCE as compared to its IOU counterparts to decipher the extent of SCE's data issues. The results here are alarming. SDG&E, which self-reports the best uptime for data delivery, only received four data issue forms from DRPs in 2020.[25] PG&E received 19 unique data issue forms.[26] SCE received a staggering 101 data issue forms, more than five times the number received by PG&E.[27]

The MDMAs further vary in how to prioritize and how expediently to resolve issues brought forward by DRPs in the data issue forms. For PG&E, of the 19 data issues with an

[21] Ex. OHM-0604, at p. 4

[22] Ex. OHM-0602, at pp. 64-65; Ex. OHM-0606 at pp. 3-4.

[23] Ex. OHM-0601, pp. 4-5

[24] *See* D.19-12-040, at pp. 70-72.

[25] Ex. OHM-0606 at pp. 4.

[26] Ex. OHM-0602, at pp. 71-73.

[27] Ex. OHM-0604, at p. 5.

identified date of completion, the average time to complete was 36 days.[28] For SCE, of the 68 data issues with an identified date of completion, the average time to complete was over 53 days.[29] And for SDG&E, the average time to complete was 24 days.[30]

The MDMAs also prioritize how to resolve data issues differently: PG&E "works each newly submitted form in the order it is received,"[31] SCE "gave priority to resolving [Revenue Quality Meter Data ("RQMD")] data issues submitted by DRPs in the order in which they were received and then resolving non-RQMD data issues in the order they were received,"[32] while SDG&E "operates under a scrum process, working in two-week sprints, to resolve issues with the appropriate IT teams"[33] and that "the resolution turnaround time for larger scale issues can take upwards of a month."[34]

The haphazard and inconsistent way that each IOU has developed its MDMA systems has burdened DRPs with additional costs due to market uncertainty, relatively high downtimes for all three IOUs, and particularly poor data delivery service from SCE.

First, the lack of clear expectations and future-proofing has necessitated a revamp of SCE's data sharing systems. Given the volume of data issues, SCE recognizes that its existing click-through solution, powered by the Hadoop platform, "has not efficiently met Rule 24 needs to date and further investment in this platform would be a risky and resource-intensive

[28] Ex. OHM-0602, at pp. 72-73.

[29] Ex. OHM-0604, at pp. 8-10.

[30] Ex. OHM-0606, at p. 5.

[31] Ex. OHM-0602, at p. 74.

[32] Ex. OHM-0604, at p. 11.

[33] Ex. OHM-0606, at p. 6.

[34] Ex. SDGE-0208, at p. 4.

endeavor."[35] SCE opts to invest a further $17.7 million in its click-through solution because it has "learned that its existing data platform does not provide adequate functionality or capacity to accommodate the enhancements contemplated."[36] The Commission should adopt this proposed improvement to SCE's click-through system out of necessity, but the Commission should protect both the existing and proposed investments in SCE's MDMA IT systems as most industries treat IT systems: "by setting service-level expectations, rather than relying on trust that the systems will operate, or continue to operate, at a level defined solely by the provider of the service."[37]

Second, the variances in MDMA services also create an uneven playing field between DRPs and IOUs, counter to the Commission goal and principles for Demand Response.[38] The DRP relies on the IOU as the MDMA for data. Due to this reliance, deficiencies in the IOU systems directly affect the DRPs, and DRPs have no alternative to obtain customer data no matter how deficient the MDMA systems might be. DRPs, and potential DRPs, are forced to build out products and programs where the expected level of service is unknown or might change. This is an incredibly challenging and difficult proposition. As Mission:data states, "any IT project in the cost estimation phase, such as the IOUs' proposed improvements to the click-through platform, has been designed with some sort of service level expectations, whether explicit or implied."[39] But DRPs have no indication of what those service level expectations might be. The current paradigm is akin to ordering a new sweater, but not being told the size or color of the garment. It is an unsustainable process for new and prospective DRPs.

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[35] Ex. SCE-0100, at p. 40.

[36] *Id.* at p. 2.

[37] Ex. OHM-0601, at p. 5

[38] *See* D.16-09-056, OP 7 and 8, at pp. 97-98.

[39] Ex. MD-0505 (Prepared Rebuttal Testimony of Michael Murray for Mission:data), at p. 4.

C. Each Click-Through Solution Should Have an SLA With a Clearly Established Threshold and Corresponding Metric-Tracking

Absent service-level expectations, it is impossible for the Commission to judge the "improvements in data delivery processes" as required by Resolution E-4868. Further, to set clear expectations for both the Commission and DRPs reliant on the MDMA services, and to protect ratepayers from undue costs, the Commission should direct each IOU to provide an SLA that includes service-level expectations set by the Commission.

A set of service-level expectations should have specificity, accountability, and enforceability.[40] Mission:data witness Murray expands on these components, stating that SLAs typically have "(1) an 'uptime' requirement; (2) requirements for responding to users – in this case, DRPs – and remedying system defects according to a schedule; (3) penalties for non-compliance; and (4) establishing communication methods for providing support and notifications of system outages."[41] For the MDMA services, these expectations should apply to four processes:[42]

1. Delivery metrics corresponding to the delivery of the initial data set, customer data, ongoing (raw) interval data, and RQMD. The metrics should measure how frequently and timely expected data in this category is actually delivered.

2. Uptime metrics corresponding to the IT data delivery systems. The metrics should measure whether the data delivery system is available to transmit data to the authorized DRP.

3. Uptime metrics corresponding to the click-through authorization system. The metrics should measure whether the click-through authorization system is working properly and successfully allows customers to authorize data access to a DRP.

4. Accuracy metrics corresponding to any of the delivered data. The metrics should measure whether the data provided by the IOU as the MDMA is accurate.

[40] Ex. OHM-0601, at p. 4.

[41] Ex. MD-0500, at p. 6.

[42] Ex. OHM-0601, at p. 8.

Each of these four categories of metrics should contain sufficient specific metrics to capture the Commission's expectation of service. The Commission should, at a minimum, require the following metrics be measured by the MDMAs:

- Uptime of the click-through solution
- Delivery of the following data sets within two days:
    - Customer data set
    - Interval data
- Delivery of the initial data set within 90 seconds
- Delivery of RQMD within 31 days
- Uptime of the IT data delivery system (including availability of APIs)
- Accuracy of the following data sets:
    - Customer data set
    - Interval data
    - Initial data set
    - RQMD

In keeping with industry standards, the Commission should also set a service-level expectation of 99.8% for the above-described metrics. The Commission should also adopt Mission:data witness Murray's reasonable proposal to exclude regularly scheduled maintenance windows from uptime calculations, with regularly scheduled maintenance defined as maintenance announced at least 14 days in advance.[43] The Commission should also adopt witness Murray's proposal to "excuse performance failures associated with (i) force majeure events and (ii) the advanced metering infrastructure ("AMI") communications network."[44]

In witness Murray's original proposal, he proposed that scheduled maintenance should not exceed 30 hours per year. However, several parties expressed concern that a service level expectation set above existing levels could increase costs to ratepayers – for example, the Public Advocates Office argued that "[t]he requirement to meet a 99.8% uptime could be extremely

[43] Ex. MD-0500, at pp. 10-11.

[44] Ex. MD-0500, at pp. 11.

costly,"[45] while PG&E indicated that although it "has not estimated such costs, it anticipates that such a change would very likely take several years and cost, at minimum, tens of millions of dollars."[46] In addition, SCE stated that the interplays between the different systems would require synchronization across all platforms to meet the 99.8% threshold.[47] Taking into account these potential costs and system interplays, the Commission should, as a starting point, set the allowable scheduled maintenance at a level of 160 hours. This number reflects the total number of hours SCE conducted planned (i.e., scheduled) maintenance in 2020 – the most hours of the three IOUs.[48] However, the Commission should set clear guidance for what constitutes scheduled maintenance, including requiring the 14-day advance notification mentioned above, requiring the scheduled maintenance to reflect a regular schedule, and requiring the IOUs to undergo planned maintenance for no more than 24 total hours within a month.

Witness Murray provides a sample Service Level Agreement as Exhibit MD-0501. The Commission should use this SLA as the starting point for developing an SLA for each IOU MDMA service. Furthermore, the Commission should direct the IOUs to develop a draft of an SLA consistent with the SLA proposed in this docket. That draft should then be presented to stakeholders within 30 days of the final order in this docket. The IOUs should then incorporate stakeholder feedback, and within 60 days of the final order in this docket submit the SLA to the Commission for approval utilizing the Advice Letter process. However, to streamline that

[45] Ex. CALA-400 (Attachments A and B to the Public Advocates Office), at p. 1-3.

[46] Ex. PGE-0002, at p. 1-22.

[47] Ex. SCE-0102 (Surrebuttal Testimony of Southern California Edison Company), at p. 4.

[48] PG&E reported 120 hours of planned maintenance, and SDG&E reported 94 hours of planned maintenance. Please *see* Ex. OHM-602, at pp. 1-2; Ex. OHM-0604, at p. 3; Ex. OHM-0606 at pp. 1-2; and Ex. OHM-0608, at p. 1 for more information.

stakeholder process, the Commission should direct the IOUs to develop SLAs that include, at a minimum, the parameters described above (i.e., the four categories of metrics at 99.8%).

Finally, the Commission should adopt witness Murray's proposed penalty structure[49] because it protects ratepayers and provides sufficient incentive for the IOUs to adhere to the SLA.

III. THE COMMISSION SHOULD DIRECT THE IOUS TO PROVIDE DRPS WITH INFORMATION AVAILABLE TO THE IOUS ABOUT THE CAUSE FOR A CUSTOMER'S FAILURE TO COMPLETE THE CLICK-THROUGH AUTHORIZATION PROCESS

The Commission should require the IOUs to limit impediments to customer enrollment in either IOU or third-party DR programs to ensure IOU customers and potential DRP customers receive the intended benefits of the click-through authorization process. Specifically, the Commission should direct the IOUs to either provide DRPs with information about the cause of a customer's failure to complete the click-through authorization process by using a standardized set of error codes and industry-standard methodology like pixel tracking.

Monitoring program or solution efficacy through customer response and behavior is a familiar requirement for IOUs. The Commission regularly requires the IOUs to track the success of the programs they administer, identify and address barriers to customer participation, and meet market penetration goals and other standards.[50] In analyzing program improvements the Commission:

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[49] Ex. MD-0500, at p. 11. Specifically, witness Murray proposes that breaches of the SLA are assigned a certain dollar value corresponding to a percentage of the total click-through process funding. The sum of these "costs" due to SLA breaches would then be considered in the next rate case, where the Commission can decide the extent to which cost recovery is required.

[50] *See* D.14-08-030, at pp. 57-58 and pp. 119-120 (Ordering Paragraph No. 36, 39); *see also* D.01-05-033, at pp. 10-11 (initiating "rapid deployment" program to expand enrollment in income qualified assistance programs and instituting monthly reports that must include a description of the leveraging and outreach activities, number of enrollments, "as well as the number initiated but not completed" enrollments); D.16-11-022 (adopting additional requirements for market penetration and enrollment); D.15-01-051 (which

> strongly encourage[s] the IOUs to continue to seek efficiencies in their program operations and delivery. Although we anticipate some increased costs over time due to inflation, we anticipate seeing savings in the areas of leveraging, coordination and technological improvements that enhance efficiencies and avoid costly and wasteful duplications.[51]

For example, as part of the IOUs' Energy Savings Assistance ("ESA"), California Alternate Rates for Energy ("CARE"), and Family Electric Rate Assistance ("FERA") programs, IOUs must report how many customers they are adding to the programs, summarize new efforts to streamline customer enrollment strategies, explain why any enrollment goals are not met and the programmatic modifications implemented to accomplish future goals.[52] Further, the Commission has adopted market penetration, minimum enrollment goals,[53] and "willingness and feasible to participate" factors for these programs, and requires IOUs to "track households that are unwilling, infeasible, or ineligible to participate" with specified categories.[54]

The Commission also requires the IOUs to cooperate with and inform third-party entities that provide services to customers. For example, the Commission requires IOUs to "provide [Community Choice Aggregators ("CCAs")] with access to utility information, rates, and services on the same terms as that information is available to its independent marketing division"

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focused on, among other improvements to the IOUs Green Tariff Shared Renewables (GTSR) programing, identifying "additional actions [that] are necessary to optimize participation in the GTSR Program.").

[51] *See* D.14-08-030, at pp. 24-25.

[52] For example, Southern California Edison Company's Low Income Annual Report for Program Year 2020, A.14-11-007 (May 3, 2021) at sections 1.4, 1.5, and 2.2, available at https://www.cpuc.ca.gov/iqap/; *see also* D.01-05-033 10-11 and D.12-08-044 at 67 (requiring IOUs to track and report on their outreach efforts and impacts on enrollment).

[53] *See* D.08-011-031 and D.12-08-044.

[54] *See* D.16-11-022.

as well as "keep a log of all issues submitted to the utility in writing by either a CCA or a CCA customer, and makes this log available for inspection by the CCA and the Commission."[55]

Thus, with respect to the click-through authorization process, the Commission should require the IOUs to similarly provide third-party DRPs with the tools and information needed to track and ensure success. The scope of the problem is stark: The drop-off from starting the process to completing the process can be significant – by OhmConnect's estimation, only 37% of eligible customers complete the authorization process.[56] However, because the nature of the click-through authorization process is that the customer starts on the DRP's website and is then redirected to the IOU's website to complete authentication and authorization in a "session", once the customer leaves the DRP's site, the DRP loses all visibility as to the actions of the customer. And while the IOUs theoretically have the tools to know why an individual session led to an unsuccessful authorization, they rarely utilize those tools or do not inform the DRPs.

Accordingly, the Commission should require that the IOUs all adopt the following set of error codes to be provided to the DRP in the event that a customer fails to authorize:[57]

1. Invalid redirect Uniform Resource Identifier
2. OAuth secret error
3. Login system down
4. Account lookup error
5. User timeout on page
6. User exited window
7. User navigated away
8. User chose not to proceed (including following an incorrect password or a decline of the terms and conditions)

[55] *See* D.12-12-036, at p. 24.

[56] Ex. OHM-0601, at p. 10.

[57] *Id.* at p. 18.

9. Information that will enable mapping between a customer session and the Rule 24/32 data provided upon a successful authorization[58]

The set of codes that the DRPs do receive from the utilities varies widely from utility to utility. By not providing consistent error code information to DRPs, the IOUs erect unnecessary barriers to DRPs that wish to follow up with prospective customers. For example, the messaging a DRP might use with a customer that encountered a site error (e.g., encouragement to try again later) differs from the messaging a DRP might use with a customer that acted to not complete the flow (*e.g.*, a suggestion to reset the password if the customer stopped on the authentication page).

PG&E's existing error codes cover nearly all of the above nine cases. The Commission should adopt those error codes and ensure the success of the click-through authorization process as it has done with numerous other IOU programs that IOUs administer to benefit their customers. Furthermore, the Commission should direct the utilities to utilize industry-standard methodology like pixel tracking to adequately collect and provide the data necessary to inform these nine cases above.

IV. THE COMMISSION SHOULD NOT ALLOW THE IOUS TO USE THE CURRENT CLICK-THROUGH AUTHORIZATION PROCESS TO DISCRIMINATE AGAINST THIRD-PARTY DR PROGRAMS THROUGH PREVENTION OF CUSTOMER DISENROLLMENT FROM CONFLICTING UTILITY DR PROGRAMS AT THE TIME OF AUTHORIZATION

The Commission should prevent the IOUs from discriminating against other DRPs by maintaining practices that favor their own DR programs. Specifically, the Commission should require IOUs to allow customers to dis-enroll from conflicting IOU DR programs during the click-through authorization process to enroll in programs offered by DRPs, and adopt a process that efficiently resolves such conflicts.

[58] Item 9 was added to the original list first provided in OhmConnect's Intervenor Testimony.

The Commission disfavors discrimination by the utilities against third-party competitors. In a similar competitive situation, the Commission found that CCAs must have an "opportunity to compete on a fair and equal basis with other load serving entities."[59] The Commission had to establish a code of conduct "to prevent investor-owned electric utilities from using their position or market power to undermine the development or operation" of CCAs.[60] The CCA-related code of conduct rules require electric utilities to "provide CCAs with specific services on a non-discriminatory basis," "ensure that utilities remain responsive to CCA requests for information and do not interfere with or withhold their assistance from CCAs," and "address the possibility that utilities could place CCAs at a disadvantage by discriminating against them or their customers."[61]

Here too, the Commission must step in to ensure the IOUs do not gain an unfair advantage over DRPs. Customers generally only may participate in one demand response program at a time. However, they are rightfully not precluded from authorizing DRPs to access their customer data. Frequently, customers sign-up for third-party DRPs and complete the data-sharing authorization only to be informed later by the DRP that they cannot participate without first dis-enrolling from a conflicting IOU DR program in which they are presently enrolled.

This process is frustrating for the customer for two reasons: first, the customer intuitively believes that once authorization has been completed, they are fully enrolled in the DRP's program, and second, the actual disenrollment process varies across and within IOUs. It also further adds delay and disenchantment with the third-party DRP enrollment process as the

[59] *See* D.12-12-036, at p. 2.

[60] *Id.*

[61] *Id.* at p. 24-25.

customer must now 1) confirm the IOU program they are already enrolled in; 2) dis-enroll (with different processes for different IOU programs); 3) complete the requisite waiting period, if there is one; and 4) have their DRP re-upload them to CAISO and await CAISO confirmation of that enrollment. Thus, by not needing to affirm the customer's intended DR program at the outset, the current click-through authorization process also effectively ensures that IOUs have an unfair incumbency advantage relative to third-party DRPs.

Furthermore, the Commission determined that the goal for demand response programs is to "assist the State in meeting its environmental objectives, cost-effectively meet the needs of the grid, and enable customers to meet their energy needs at a reduced cost."[62] One of the principles for demand response is that "[d]emand response customers shall have the right to provide demand response through a service provider of their choice and Utilities shall support their choice by eliminating barriers to data access."[63] When customers encounter barriers that limit their ability to join the service provider of their choosing, this runs afoul of the Commission's vision for demand response.

To remove this unfair advantage, the Commission should adopt the following process to resolve DR program conflicts:[64]

1. The customer begins the click-through authorization process, and successfully authenticates and authorizes.
2. The IOU, within seconds, determines whether the customer is currently enrolled in a conflicting IOU-administered DR program.
3. If the customer is not enrolled in a conflicting IOU-administered DR program, the customer is returned to the third-party DRP webpage.

[62] *See* D.16-09-056, at p. 46.

[63] *Id.*

[64] Ex. OHM-0601, at pp. 13-14.

4. If the customer is enrolled in a conflicting IOU-administered DR program, the customer is presented with a web page indicating the potential enrollment conflict. The web page will also provide an opportunity for the customer to initiate disenrollment from the IOU-administered DR program (and the date that the disenrollment will be completed), or for the customer to indicate that they wish to remain in the IOU-administered DR program. The customer can also decline to answer. If the customer does not respond, this non-response is also indicated to the authorized DRP.

5. The customer is returned to the third-party DRP webpage. The IOU provides to the DRP the customer's choice to either dis-enroll, remain in the IOU-administered DR program, or decline to answer. If the customer chooses to dis-enroll, the IOU also provides the date that the disenrollment will be completed.

The Commission need not change tariffed rules around disenrollment timelines to change the click-through authorization process. Instead, the Commission can prevent the IOUs from using the click-through authorization process to discriminate in favor of their own DR programs by requiring that the IOUs develop a process that facilitates customer enrollment into the DR program of their choice.

V. THE COMMISSION SHOULD REQUIRE THAT IOUs IMPROVE THE CUSTOMER EXPERIENCE SO AS NOT TO DISCOURAGE CUSTOMER PARTICIPATION IN DR.

As discussed above, the Commission requires IOUs to encourage seamless enrollment in other programs, such as for its income qualified assistance programs.[65] In the Rule 24/32 implementation proceeding (a precursor to this click-through proceeding), Decision 16-06-008 identified "enrollment fatigue" as a problem to be addressed,[66] and ordered parties to "attempt to identify unnecessary steps in the enrollment process and determine options to eliminate these steps."[67] Consequently, the Commission should require the IOUs implement a click-through

[65] *See* Section 2, supra; *see also* D.15-07-001 ("the IOUs must take the initiative to identify barriers to program implementation and means to reduce those barriers"); D.16-11-022 (the Commission "directs the utilities to press harder to deploy ESA and to enroll eligible low-income households" and to "minimize[] barriers to participation").

[66] *See* D.16-06-008, Finding of Fact 27, at p. 30.

[67] *Id*. at 23.

login button with an IOU logo and publicize their MDMA-related outages to improve the customer experience and encourage customer participation in DR.

A. A Click-Through Login Button With a Utility Logo Would Increase Customer Confidence

Typical click-through solutions include a branded login button provided by the click-through implementer that the third-party is encouraged to incorporate on its website. Google, Facebook, Twitter, LinkedIn, Microsoft, and Amazon all have developed a login or sign-in button that incorporates that entity's logo.[68] However, the IOUs have remained resistant to this implementation out of fear that the customer may somehow incorrectly infer a partnership or just be confused.[69] Yet, the very purpose of the branding proposal is precisely to alleviate customer confusion while establishing that this is the proper and secure way to authorize a DRP data access. A standardized login button would act as an endorsement of *the pathway* by which a customer should authenticate and authorize data access.

The Commission should direct the IOUs to develop consistent login buttons that DRPs can use on their websites solely to redirect customers to the click-through authorization process. By doing so, the Commission would not be requiring the IOUs to provide DRPs free reign to use the IOU logo however they please. In fact, the Commission should require the IOUs to follow the industry standard and develop specific guidelines and best practices that DRPs must follow to use the button.[70]

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[68] Ex. OHM-0601, at pp. 15.

[69] Ex. PGE-0002, at p. 2-9; Ex. SCE-0101, at p. 19, Ex. SDGE-0208, at p. 7.

[70] Ex. OHM-0601, at p. 15, identified a number of these publicly-available guidelines from IT leaders:

- "Sign-In Branding Guidelines," available at https://developers.google.com/identity/branding-guidelines;
- "Login Button," available at https://developers.facebook.com/docs/facebook-login/web/login-button/#login-button;
- "Authentication," available at https://developer.twitter.com/en/docs/authentication/guides;

B. Publicizing IOU Outages Would Improve Customer Confidence

IOU MDMA systems frequently experience some form of outage whether it is with the click-through authorization process or with the data delivery systems. For example, as detailed above, SCE alone had over 100 data issues reported by DRPs in 2020. Breakages in the MDMA systems frustrate customers, especially because those customers are both powerless to fix the issue themselves and no formal pathway exists to express the issue to their utility (the entity responsible for providing the data). Thus, the Commission should require the IOUs to provide a public notification of outages.

The Mission:data witness provides the strongest reasons for a public notification of outages:

> It is the norm in the industry for digital platform operators to provide a website showing the status of their online systems' components. A public website provides a single location for announcing scheduled and unscheduled maintenance windows, reducing unnecessary communication between DRPs and IOUs when an outage occurs. A website would also benefit firms who are considering becoming a DRP but want to understand the cadence of outages and maintenance in order to plan appropriately. Finally, a public-facing website helps the Commission execute its oversight role and resolve disputes that may arise between DRPs and IOUs regarding the operation of the CTPs.[71]

Accordingly, the Commission should direct the IOUs to publish public-facing statistics indicating, at a minimum:

- If the IOU is presently experiencing a data outage, and whether the outage was planned or unplanned;

- "Sign In with LinkedIn," available at https://docs.microsoft.com/en-us/linkedin/consumer/integrations/self-serve/sign-in-with-linkedin?context=linkedin/consumer/context;
- "Branding Guidelines for Applications," available at https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-add-branding-in-azure-ad-apps;
- "Login with Amazon for Websites Overview," available at https://developer.amazon.com/docs/login-with-amazon/web-docs.html.

[71] Ex. MD-0500, at p. 21.

- If the IOU is presently experiencing some other technical issue that prevents data from being delivered;
- Data elements impacted, days impacted, estimated time for resolution, and percentage of customers impacted; and
- A historical record of data outages or other technical issues.

Publicizing these incidents can increase the confidence of IOU customers in the overall systems. The Commission can also use this public notification to establish accountability and to ensure that the customer can recognize why their DRP cannot take any action to resolve the issue.

VI. CONCLUSION

The Commission should adopt the Joint Parties' proposed recommendations. In particular, the Commission should require a Service-Level Agreement between the Investor-Owned Utilities, acting as Meter Data Management Agents, and the third-party Demand Response Providers who depend on the click-through solution to provide DR services to hundreds of thousands of California customers.

The IOUs have relied on their monopoly ownership of MDMA services to create subjective levels of "acceptable" service. And, to the detriment of California, the levels of service that the IOU deems sufficient are below a minimum level that would be acceptable in a truly competitive market. The volume of data issue forms, the impact of outages, and the general slow response times to fix these issues are all proof that the MDMA services provided by the IOUs are lacking when compared to major industry players who aim for 99.9% availability or better, in accordance with industry standards. However, the IOUs refuse to acknowledge this discrepancy, and has led to the current impasse between the IOUs and the users of the system as to what constitutes an acceptable level of service. To rectify this, the Commission should make clear its performance expectations of the IOUs click-through and MDMA services and direct stakeholders to develop an SLA codifying these requirements.

Furthermore, without Commission action, the Applications as written would retain an uneven playing field between the IOUs and the DRPs. The unreliability of the IOU systems is in and of itself a barrier to DRPs that prevents customer enrollment, imposes additional costs, and diminishes the attractiveness of the California market.

Finally, we expect the Commission will open a new proceeding to expand data access to other DERs and resolve any residual issues[72] as necessary to address the requirements of Resolution E-4868, where the Commission directed each IOU to provide "a proposal to expand the click-through solution(s) to other distributed energy resource and energy management providers."[73] As this issue was later ruled out of scope of this proceeding on October 23, 2020,[74] it will need to be addressed in another forum. To address the directive from Resolution E-4868 to consider proposals expanding the click-through solution to other DERs, we understand the Commission would open a new proceeding immediately that will address this exact issue.[75] In addition, the Commission should expediently address data access so that third-party DERs can utilize this data to provide resources that will improve grid resiliency and mitigate extreme weather emergency situations. Opening a new proceeding, however, should not preclude resolution of critical issues raised in this proceeding and the solutions detailed here. Time is of the essence.

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[72] *See* CPUC Rules of Practice and Procedure, Rule 6.1.

[73] *See* August 25, 2017 Resolution E-4868, OP 29, at p. 105.

[74] *See* April 14, 2021 ALJ McGary and Hecht's "E-Mail Ruling Regarding Off-Calendar Evidentiary Hearings and Document Only Evidence Process", at p. 5, available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M377/K391/377391066.PDF.

[75] A new proceeding to address expansion to third-party DERs is supported by SCE (SCE-0101, at p. 18) and PG&E (PGE-0002, at p. 1-12).

The Commission has devoted over two and a half years in this proceeding to debate the appropriate enhancements that should be made to the existing click-through authorization process. Approval of the Applications as written is insufficient. To ensure the Applications satisfy the requirements of Resolution E-4868, address the scope identified by the Commission for these consolidated Applications, even the playing field between IOUs and DRPs, and bring the click-through solutions to a level of basic (and unambiguous) IT technical standards, the Commission should adopt the following proposed outcomes:

1. Direct the IOUs and stakeholders to develop a Service-Level Agreement that sets expectation of service for data delivery, delivery system uptime, click-through uptime, and data accuracy at 99.8%;

2. Direct the IOUs to provide DRPs with tools and resources to assist with determining the cause for a customer's failure to enroll;

3. Ensure the IOUs do not discriminate against third-party DRPs; and

4. Require the IOUs improve the customer experience during the click-through authorization process so as not to discourage customer participation in DR.

Respectfully submitted,

/s/

Vidhya Prabhakaran
Katie Jorrie
Davis Wright Tremaine LLP
Suite 800
505 Montgomery Street
San Francisco, CA 94111-6533
Tel. (415) 276-6500
Fax. (415) 276-6599
Email: vidhyaprabhakaran@dwt.com
Email: katiejorrie@dwt.com
Attorneys for OhmConnect, Inc.

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