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Attachment 6
Proposals for Working Group 2
Topic 2.2 Invoice Deadline
Topic 2.3 Revenue Quality Meter Data

DRAM Working Group 2

Working Group Sub-Topic #2– Invoice Deadline (2.2) and Revenue Quality Meter Data (2.3)

SUB-TOPIC 2.2. Invoice Deadline

IOU Co-Lead: San Diego Gas & Electric Company (SDG&E)

Interested Stakeholder Co-Lead: Olivine

Problem Statements

The current Demand Response Auction Mechanism (DRAM) proforma contract does not specify the deadline for the Seller to submit the monthly invoices. When invoices are not provided in a timely manner, it is challenging to determine whether a Buyer is fulfilling terms of the contract.

In cases when the Sellers never provide invoices, the lack of visibility of the DRAM resource performance forestall the contract compliance verification.

Sub-Working Group Consensus:

A reasonable invoice deadline should be included in the DRAM proforma contract.

IOUs' Proposal for Invoice Deadline:

1. Whenever possible and technology feasible, investor-owned utilities (IOUs) will provide raw meter data daily to the DRAM demand response providers (DRPs);
2. Pursuant to Rule 24/32, IOUs are obligated to provide complete, accurate, and timely Revenue Quality Meter Data (RQMD) to the DRAM DRPs within a reasonable time frame, for example 60 days, after the operation day;
3. DRPs are required to submit the monthly invoice within 60 days after the end of the showing month.
4. Exception and Consequence of not meeting this requirement:
 - a. If the RQMD is not available within 60 days after the end of the showing month, the deadline for submitting the monthly invoices can be extended to another 30 days, counting from the day when RQMD is made available to the DRPs.
 - b. If RQMD is available, and DRP misses the submittal deadline described above, DRP will forfeit the payment for the month when the DRP misses the invoice deadline.

Joint DRPs' Proposal:

Problem Statement: 1) Invoices are not coming in a timely fashion and in some cases are never delivered at all; 2) Late data may prevents invoices containing demonstrated capacity from test/dispatch to be prepared and filed; and 3) delays in both RQMD and raw data are causing problems for sellers/ Scheduling Coordinators (SCs)/DRPs.

Proposal: Joint DR Parties (JDRP) propose that either invoices be due within 30 days of receiving all necessary meter data for the preparation of invoice, or alternatively, that a flat 90 days after the delivery month invoices are due – with an exception process that allows the Seller to let the contract admin at the IOU know the invoice is not ready yet due to data delivery delays on the IOU side.

Olivine's Proposal:

Add contract language to the DRAM contract to impose a DRAM invoice deadline of 30 calendar days after complete set of valid and relevant RQMD ("last RQMD date"), up through the end of the delivery month, is delivered to the DRP by the IOU. The contract language would require the DRP to notify the IOU of any missing or incorrect data within 30 days of the end of the settlement month. In the case where valid RQMD is delayed beyond 60 days, the Seller would be allowed to submit a partial invoice including those resources that are not impacted by missing or invalid RQMD, with the balance of the invoice to be completed within 30 days of delivery of the relevant RQMD.

If an invoice for a delivery month is not provided under these conditions, then the invoice would be deemed as being \$0 and 0 MW for the delivery month.

<End of proposals for topic 2.2- Invoice Deadline>

SUB-TOPIC 2.3. Revenue Quality Meter Data (RQMD)

IOU Co-Lead: San Diego Gas & Electric Company

Interested Stakeholder Co-Lead: Olivine

Problem Statements

- The IOUs are required to provide RQMD to DRPs under Rule 24/32 in support of California Independent System Operator (CAISO) meter data submittal timelines. In some cases, IOUs are late in providing data.
- DRPs are unable to meet CAISO submittal timelines, which can result in non-compliance penalties and/or late penalties of \$1000/day for late submittal.
- DRPs may be unable to meet any imposed invoicing deadline.

IOUs' Proposal for RQMD:

1. Pursuant to the specific Rule 24/32, IOUs, as the Meter Data Management Agent (MDMA), are mandated to provide timely and accurate RQMD. Under this liability, SDG&E could be penalized, limited to the monetary fines imposed by the CAISO upon the DRP or its SC, due to non-compliance. In order for the SCs of DRAM resources to meet CAISO requirements on Settlement Quality Meter Data (SQMD), it is crucial for DRPs to receive timely and accurate RQMD for each of the locations comprising a DRAM resource.

“SDG&E shall provide RQMD customer data to the Non-Utility DRP in accordance with standards adopted in the DASMMMD or other standards in compliance with the CAISO’s applicable requirement, for the Non-Utility DRP’s or its agent’s consolidation into SQMD for the CAISO. SDG&E shall be liable for providing timely and accurate RQMD to the Non-Utility DRP or its designated agent to facilitate final meter data submission in accordance with the CAISO’s tariff. If the MDMA [“Meter Data Management Agent”] is found, through the remedy and dispute resolution process, to have failed to comply fully with the applicable requirements for submission of timely and accurate RQMD so as to be the sole fault for the ability for the DRP or its agent to comply fully with the applicable CAISO requirements, the MDMA shall be held liable, limited to the penalties imposed by the CAISO upon the Non-Utility DRP or its Scheduling Coordinator (SC) due to the non-compliance.”

2. DRAM contracts should reference Rule 32 to the RQMD requirements above. However, IOUs do not support proposals for imposing fees or penalties on IOUs in the contract. Rule 24/32 defines the liability of IOUs in failing to meet the RQMD requirements and limits the penalties to that imposed upon the DRP by the CAISO.
3. Timely and specific issue reporting and communication between DRPs and IOUs is crucial for IOUs to fulfill its obligations to provide the timely and accurate RQMD within the timeline;
 - a. The Proforma contract should include language requiring a DRP to notify the specific IOU within a reasonable period of time that it believes RQMD is missing for particular date or date range for a particular customer or set of customers. This notification to

IOUs is critical. Due to the volume of data and system detection capability, IOUs could not guarantee to identify and address every possible use case for missing interval data. Early notification on the part of the DRP will allow IOUs the opportunity to investigate the issue and troubleshoot where necessary, so that a DRP can meet the CAISO SQMD timeliness without penalty. Most DRPs proactively engage IOU's Rule 24/32 team to identify cases of missing data and as a result of that open communication, cases of missing data have been successfully resolved. Also, not all purported claims of missing interval data are due to system issues on IOU's side.

- b. Exception should be handled on a case by case basis following the existing process.

Olivine's Proposal:

Olivine believes that the existing Rule 24/32 tariff language already support the recovery of monies regarding late delivery of RQMD and therefore no changes to the contract should be made at this time. Particularly, clarification of the invoice deadlines in sub-topic 2.2 mitigates this issue, and in our opinion may raise the visibility and criticality of late or invalid RQMD by incentivizing the IOUs with timely invoicing.

OhmConnect's Proposal (starts at next page):



Working Group 2.3 (Sub-Topic: Revenue Quality Meter Data (RQMD))
Proposal: Augment the Pro Forma Contract with a MDMA Service Level Agreement

A. Problem Statement

Energy Division’s Evaluation of the DRAM Final Report (“DRAM Evaluation Report”), published January 4, 2019, noted several concerns expressed by third-party DRPs related to data. In particular, the DRAM Evaluation Report found that “Third-party DRPs have reported difficulties obtaining timely, complete, and correct RQMD from the IOUs”¹ and that over half of DRPs interviewed “indicated that ‘delayed or incomplete IOU response to technical issues’ also created challenges”, while “utility lack of or incomplete provision of customer data or difficulty interfacing with IOU data provisioning systems created barriers.”² To address these data issues, Staff proposed in the DRAM Evaluation Report to consider developing “a remedy in the DRAM RFO Pro Forma contracts for IOU failure to deliver timely, complete, and correct Revenue Quality Meter Data (RQMD).”³

Data is paramount to a DRP’s ability to deliver and invoice the contracted DRAM capacity. Under Rule 24 (for PG&E and SCE) and Rule 32 (for SDG&E) (collectively, Rule 24/32), the IOU serving as the Meter Data Management Agent (MDMA) provides customer non-interval data and interval data (both “estimated” and cleaned RQMD) to the DRP for all authorized customers. This data is necessary for several business practices related to DRAM, including determining customer eligibility, enrolling the customer into CAISO’s DRRS, calculating customer and Resource performance, settling at the CAISO, and providing a functional and satisfying customer experience. However, the experience of the DRPs has been that MDMA performance has varied between the three IOUs, with some IOUs failing to meet the expected level of service. The proposal described herein proposes a Service Level Agreement (SLA) as part of the Pro Forma contracts that would apply to all data delivered under Rule 24/32.

B. Description of Methodology

We propose including as an addendum to the DRAM Pro Forma a Service Level Agreement (SLA). As an industry standard, a SLA would be used to define the commitment on the level of service intended between a service provider and a client, in order to provide a level of protection for both parties. In the case of Rule 24/32, the IOUs provide a data access service for multiple streams of data that are necessary for DRPs to operate their businesses. Accordingly, the SLA attached to the DRAM Pro Forma would set expectations for data transfer, data access, and customer authorization.

A SLA typically has three pieces to ensure effectiveness: (1) the target (e.g. the desired service level); (2) the notification (e.g. the communication plan if service is interrupted); and (3) the penalty (e.g. the penalties for failing to meet targets). For purposes of the DRAM, the SLA should consider, at a minimum, targets related to data transmission, data availability, authorization availability, and data accuracy. The

¹ Energy Division’s Evaluation of Demand Response Auction Mechanism Final Report, at p. 118.

² Ibid., at p. 31.

³ Ibid., at p. 124.

Appendix to this proposal contains a basic template that could be used as a starting point for the SLA, and considers these suggested targets.

C. Discussion

A SLA provides a level of protection to DRAM Sellers that depend on the IOU (as the MDMA) for data authorization and data access. Arguably, the current safeguards that are in place to ensure timely and reliable access to data are not sufficient, given the comments of the DRPs interviewed for the DRAM Evaluation Report. Although Rule 24/32 provides guidance as to the data expected to be delivered to the authorized DRPs, it does not clearly establish deadlines for delivery of all data elements. Furthermore, the only recourse available to DRPs that believe the MDMA has violated Rule 24/32 is to file a formal Complaint at the CPUC. This is a resource-intensive and time-consuming process, and cannot reasonably facilitate one-off data issues that should be resolvable in a short timeframe.

D. Pros/Cons

Operational efficacy: The intent of the SLA is, in part, to establish a *consistent* process to identify and resolve data issues.

Verifiability: The IOU, as the MDMA, and the DRP should both have records of what data was transferred and at what time. However, only the IOU has access to the specific uptime of the authorization system.

Costs: Presuming that the MDMA already meets the requirements of the SLA, there may not be any additional costs. However, in the event that the MDMA must make improvements to its data authorization and/or data transfer systems, this could entail additional costs.

Impacts on new entrants: This proposal will benefit all DRPs equally, including new entrants. Adopting this proposal could also mitigate the integration challenges previous new entrants have experienced.

Impacts on good actors: Good actors, defined here as MDMA's that strive to provide the highest level of service and who respond quickly and appropriately to any lapse in service level, are unlikely to incur any penalties.

Parties' positions (for and against): Parties in the DRAM working group meeting on January 31 discussed how, presently, the only governing document related to DRAM data sharing is Rule 24/32, and the only recourse for DRPs is to submit a formal Complaint to the CPUC alleging misconduct. In addition, conversation during the meeting suggested there is broad support from the third parties for improved data delivery on the part of the IOUs.

E. Dependencies

This proposal is not directly dependent on any other proposal or sub-topic related to DRAM. However, additional forums at the Commission will potentially also consider improvements to existing data authorization and/or data delivery processes, such as the existing Customer Data Access Committee (CDAC) and the open Click-Through Applications (A.18-11-015, A.18-11-016, and A.18-11-017).

Appendix: Sample Service Level Agreement

This Service Level Agreement (“SLA”) for the Meter Data Management Agent (MDMA) is in addition to Rule 24/32 and related Rulings and Decisions. This SLA applies to the MDMA services for collecting, maintaining and sharing customer smart meter data with Demand Response Providers (DRPs).

Definitions

“**Applicable Monthly Period**” means the calendar month in which the Service is measured.

“**Customer Portal**” means the web interface (including access via a mobile device), provided by MDMA, through which customers may access and manage the Service.

“**Incident**” means (i) any single event, or (ii) any set of events, that result in Downtime.

“**Penalty**” means the financial penalty imposed for not meeting Service Level requirements.

“**Scheduled Downtime**” means periods of Downtime related to network, hardware, or Service maintenance or upgrades. To qualify as scheduled Downtime, MDMA must publish notice or notify DRP at least five (5) days prior to the commencement of such Downtime.

“**Service Infrastructure**” means the authentication, computing, and storage resources that MDMA provides in connection with the Service.

“**Service**” means the maintenance, access and processing of customer smart meter data by the MDMA as required by Rule 24/32.

“**Service Level**” means the performance metric(s) set forth in this SLA that MDMA is required to meet in the delivery of the Service.

“**Support Window**” refers to the period of time during which a Service feature or compatibility with a separate product or service is supported.

- 1) The MDMA will be required to maintain system availability for consumers to authorize data access for DRPs through the OAuth click-through process.

Downtime: Any period of time when end users (i.e. customers) are unable to login to their online account with the MDMA. Any period of time when end users are not able to authorize data access.

“**Monthly Uptime Percentage**” is calculated using the following formula:

$$\frac{\text{Maximum Available Minutes} - \text{Downtime}}{\text{Maximum Available Minutes}} \times 100$$

Service Level Penalties:

Monthly Uptime Percentage	Penalty
< 99.95%	\$
< 99%	\$

- 2) The MDMA will be required to maintain system availability for DRPs to access customer Smart Meter data. Service availability will be measured by total uptime and by the number of successful API requests.

Downtime: Any period of time when DRP is unable to access MDMA systems to update customer data records.

“**Monthly Uptime Percentage**” is calculated using the following formula:

$$\frac{\text{Maximum Available Minutes} - \text{Downtime}}{\text{Maximum Available Minutes}} \times 100$$

Service Level Penalties:

Monthly Uptime Percentage	Penalty
< 99.95%	\$
< 99%	\$

“**Total API Requests**” is the total number of requests made by the DRP to the MDMA API Endpoint in a month.

$$\frac{\text{Total API Requests} - \text{Failed API Requests}}{\text{Total API Requests}} \times 100$$

Service Level Penalties:

Data Delivery	Penalty
< 99.95%	\$
< 99%	\$

3) The MDMA will be required to deliver customer data files to the DRP within two (2) business days.

“**Data Requests**” is the total number of customer records requested in a given month.

$$\frac{\text{Total Data Requests} - \text{Failed Data Requests}}{\text{Total Data Requests}} \times 100$$

Service Level Penalties:

Data Delivery	Penalty
< 99.95%	\$
< 99%	\$

4) The MDMA will be required to provide accurate data to DRPs. The Customer Data record will be comprised of hourly smart meter data for the customer service location.

“**Customer Data Records**” is the total number of customer hourly data records provided by the MDMA to the DRP in a month.

$$\frac{\text{Total Customer Data Records} - \text{Failed Customer Data Records}}{\text{Total Customer Data Records}} \times 100$$

Service Level Penalties:

Data Accuracy	Penalty
< 99.95%	\$
< 99%	\$

If MDMA does not meet the service levels above, it will notify the DRP, the customers affected and the Energy Division with the scope of the Service interruption accompanied by a detailed plan to resolve the Service interruption. Financial penalties will be imposed on a monthly basis.

Technical Support for MDMA Services

The MDMA will provide Technical Support Services for DRPs and will respond to DRP requests in a timely fashion based on severity level of the consumer smart meter data issue.

- Level 1 Severity – Affects Must Offer Obligation (MOO) bidding, capacity test planning and execution. Affects market settlement and settlement with consumer. MDMA will respond within one (1) hour.
- Level 2 Severity – Affects DRP ability to provide customers with performance feedback, process customer baselines and respond to customer inquiries related to baselines or performance. MDMA will respond within four (4) hours.
- Level 3 Severity – Affects the customer smart meter data record. MDMA will respond within twenty-four (24) hours.

Claims

DRP will submit the claim to Technical Support at MDMA including all information necessary for MDMA to validate the claim, including but not limited to: (i) a detailed description of the Incident; (ii) information regarding the time and duration of the Downtime; (iii) the number and location(s) of affected users (if applicable); and (iv) descriptions of the DRP's attempts to resolve the Incident at the time of occurrence.

The MDMA will evaluate all information reasonably available to MDMA and reply to DRP with disposition within twenty-four (24) hours.

Penalties

Penalties will be imposed as follows: TBD

Limitations

This SLA and any applicable Service Levels do not apply to any performance or availability issues:

1. Due to factors outside the reasonable control of the MDMA (for example, natural disaster, war, acts of terrorism, riots, government action, or a network or device failure external to MDMA data centers, including at or between the DRP and the MDMA data center);
2. That result from the use of services, hardware, or software not provided by the MDMA, including, but not limited to, issues resulting from inadequate bandwidth or related to third-party software or services;
3. Caused by DRP use of a Service after MDMA advised DRP to modify use of the Service, if DRP did not modify use as advised;

4. That result from faulty input, instructions, or arguments (for example, requests to access files that do not exist);