

#	BRS and Other Reference Information	Question	CAISO Response
1	PDR.DR.BRQ000300	Will a web service be available? We would like to integrate the approval process into its internal workflow process.	The initial implementation does not foresee a web service capability for this particular communication. The workflow currently envisioned is dependent on a user logging into the DR Application where a list of tasks will be displayed requiring action to be taken.
2	PDR.DR.BRQ000800	Is this requirement referring to the submission of historical load data? If this statement does refer to historical load data, (a) is the DRP required to send it to the new DR application or OMAR?; and (b) at what point in the process is the DRP required to submit it? (After Registration is complete?) . Is the DRP required to submit historical load data for the PDR or for each individual customer that makes up the PDR? (We made the assumption that we would be submitting historical load data for the PDR, after we receive the PDR Resource ID). If the historical load data needs to be submitted for each customer, what key or ID will the CAISO use at the customer level?	This requirement is referring to the submission of historical load meter data. It is currently anticipated that the DRP will be required to send to the new DR application. Regardless of the application, it is important to understand that the historic load will not be needed until the PDR Registration has been Approved, a Resource Id has been Assigned AND the PDR has been established in Master File. The meter data should be provided at that time, prior to initial bidding, and on an on-going basis. It should be provided in the same granularity of the registration levels defined in the DR application. The ISO will always have the right (as is today) to request meter data at the customer level for auditing purposes.
3	PDR.DR.BRQ001200	Please confirm that: $\text{PDR Performance} = \text{Gen Meter Data Quantity}; \text{ Gen Meter Data Quantity} = (\text{PDR Baseline}) - (\text{PDR Load})$	This statement is correct.
4	PDR.DR.BRQ002300	Is this historical load data being sent to the DR application or OMAR? In PDR.DR.BRQ000800 CAISO stated that historical data would go to the DR Application. We need clarification on which CAISO system the historical load data is to be sent and when.	To support CBL calculations, the DRP (formerly named "CSP") will provide all SQMD historical data directly to the DR Application. Calculated Baseline and Calculated Generation quantities will be determined within the DR Application and forwarded directly to Settlements. All PDR meter data will be submitted to the DR Application in accordance with existing timelines for meter data submittal. LSEs will continue to send overall load meter data (i.e. meter data associated with load service and not PDR Registrations) to OMAR in accordance with existing processes and timelines. An LSE acting as a DRP will forward data to both the DR App and OMAR: 1.) In their DRP capacity, PDR meter data pertaining to DR events will be sent to the DR Application; and 2.) In their LSE capacity, meter data will be forwarded to OMAR.
5	PDR.DR.BRQ002800	What is the retention requirement for audit purposes? In other words, how far back do we have to store the data? The statement states "The DRP's SC <u>can</u> disaggregate...", should it state the DRP's SC <u>must</u> disaggregate..." In other words, is it a requirement or an option to store data at the customer level for each PDR?	It is not optional. The DRP must store this data at the customer level for audit purposes. Meter Data maintenance for the DRP is no different than meter data for today's load. Due to payment acceleration and the implementation of a sunset clause, retention will likely be a minimum of 3 years.

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6	PDR.FNM.BRQ000100	Is there a new flag for "market only" in the Master File? If so, then which MF will this flag be in? The MF that the CAISO uses or the MF that the DRP's SC uses?	A flag will exist within CAISO's MF to show that a resource will be a PDR, not for SC use.
7	PDR.MF.BRQ000400	Is the Master File going to have the same format as the current GRDT, or will there be new columns/flags to handle the new PDR Resource IDs. If the DRP's SC is also the LSE's SC, will there be just one Master File for that SC, or will there be two MF: one for the LSE's SC and one for DRPs SC. If there will be changes to the MF itself for the PDR, when will the changes be communicated to PG&E?	The current GRDT will be used for PDR. No new fields will be added. Only the DRP's SC will complete and submit the RDT. If there are changes to the Master File values for a PDR for which PG&E is the DRP's SC, PG&E would be informed. PG&E will not be informed of PDR resource characteristics in its capacity as an LSE.
8	PDR.MF.BRQ000701	What does the term "group type" mean in regards to the Master File? We need a better understanding of ALL changes that will be implemented on the MF for the PDR and the new format of the MF for PDR.	The Master File is a CAISO internal database. Participants interact with the Master File through the RDT submission or through what is referred to as MFII webservices in the External BRS. There are some changes to internal CAISO data structures within the Master File to pass some additional characteristics between internal systems. These characteristics are stored in a group type which the ISO will populate. There are no participant-facing changes to the RDT or to MFII webservices.
9	PDR.EMS.BRQ00100	CAISO states: "EMS Telemetry is required for a PDR to provide A/S". In PDR.DR.BRQ000100 it was stated that DA Energy greater than 10mw requires telemetry, should this statement be adjusted to reflect the 10MW limit as well?	Both statements are valid.
10	PDR.DAM.BRQ002100	Can the CAISO provide a complete list of what is different between a Gen Resource and a PDR resource in regards to the Master File and CAISO rules?	A sample RDT has been provided. In addition, there is a new data element: the GDF Flag, which controls whether a PDR may bid GDFs on a daily basis (as other aggregate generators do). This flag will be set to "static" (i.e. "no") by default. A DRP may request to change this flag to "dynamic" (i.e. "yes") through a request to their Client Representative. The ISO will have approve or deny the request.
11	PDR.RTM.BRQ000300	Who is required to perform the parsing from 15 minute intervals to 5 minute intervals? What are the rules regarding how the meter data is parsed?	The DRP's SC.
12	PDR.MTR.BRQ000200	We want to confirm that the DRP's SC is submitting meter data for the PDR Resource and not for each individual customer that makes up the PDR.	The DRP's SC will submit meter data at the Registration level.
13	PDR.MTR.BRQ000201	Need clarification on what the LSE's SC is required to submit and what the DRP's SC is required to submit.	The LSE's SC makes no changes to the submission of SQMD (i.e. actual load is submitted). The DRP's SC submits actual load for each Registration.
14	PDR.MTR.BRQ000202	How many days after the Trade Date (non-event days) does the DRP's SC have to submit interval data for the PDR that would be used for the baseline?	The DRP's SC should submit SQMD according to the Payment Acceleration timeline regardless of whether there was an event day.
15	PDR.MTR.BRQ000202	How many versions of the Baseline will be calculated?	As many as required based on updates to meter data.
16	PDR.MTR.BRQ000202	We need to understand how the Baseline will be calculated by the CAISO, so that we can replicate the process and do a	The baseline will be calculated as described in the Policy. Additional information can be provided in implementation

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		comparison.	workshops.
17	PDR.MTR.BRQ000202	Will we have access to the Baseline calculated by CAISO? We would like both a GUI and a service (system to system)	Both the LSE's SC and the DRP's SC will have access to baseline data. It is currently anticipated that a GUI and Service will be available.
18	PDR.MTR.BRQ000202	Will we have access to a Baseline Calculation that was calculated for a PDR for a past Trade Date? If yes, how far back will we be able to access it?	It is currently anticipated that calculated baseline values will be accessible for 36 months after a given trade date.
19	PDR.MTR.BRQ000203	What does "on the load channel of the PDR Resource ID" mean in this context?	Generation meter data is on "Channel 4" while load meter data is on "Channel 1". Since load meter data is being submitted for PDR, it should be submitted with the characteristics used for other load meter data submissions.
20	PDR.MTR.BRQ000203	What is submission on load channel of the PDR Resource ID trying to accomplish?	This allows CAISO systems an attribute to distinguish between load and generation meter data.
21	PDR.MTR.BRQ000203	Will the PDR Load Meter ID be mapped to the PDR Gen Meter ID?	The CAISO is working through systematic data relationships and will provide more information when it is available.
22	PDR.SMC.BRQ001300	Please spell out the formula for calculating the adjustment to the LSE.	Details of the impacted charge codes and/or pre-calculations will be provided in the settlements configuration guide.
23	PDR.CREDIT.BRQ000100	Please replace DRP with DRP's SC in the following sentence: "The CAISO shall develop and impose Credit requirements for DRPs"	The credit requirements are imposed on the DRP. The DRP is the financially responsible party.
24	PDR.REPT.BRQ000200	The DRP's SC shall have full access to the PDR Real Time commitment and A/S awards in ADS. The LSE's SC shall have read only access to the PDR Real Time commitment and A/S awards in ADS.	This statement is correct.
25	PDR_RDT_sample.xls	We expected a 'DA only' flag in the master file. Please let us know where it is located	A new column will be added to the Master File. The flag will need to be set when setting up the resource in the master file. This will change the SIBR rules - see the release notes. The Master File XSD will not change as this not a change in the RDT.
26	Implementation Plan	Will there be overlapping registrations (with different effective dates)? It seems that this will make it hard for the CAISO to calculate the baseline	The CAISO's system will be built to accommodate different registrations for different sets of customers that may overlap over time (e.g. for seasonal reasons). However, the CAISO is not planning to start out with this feature. At market start CAISO will have one registration effective at a time. All locations will be mapped to a single registration for each date.
27	Implementation Plan	Using the settlement example used at the 12/8 workshop, please walk us through all of the charge codes impacted by the load adjustment at the pre-calc level.	CAISO provided the list of impacted charge codes in the 1/5/2010 workshop. http://www.aiso.com/2495/2495ccf168cd0.pdf
28	Implementation Plan	Our original thought was that there can be no gap between the one-time submission of 45 days of historical meter data and the daily submissions thereafter. In reading the details provided in the implementation plan, we found a contradiction to this. Section 3.8.1 states that during the registration	There will be a 5-day gap for the submittal of the 45-day historical meter data, which the CAISO is comfortable with since baseline calculations will not start until T+5B. The intent is to have a continuous 45 days of meter data. The question raised on the 12/15 conference call was whether it

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		<p>process, specifically after we receive the PDR Resource ID, we are required to submit 45 days of historical meter data. That is to say in order to complete Registration Process we must submit 45 days of historical meter data.</p> <p>Daily submission on T+5B and T+43C begins with the active date of the PDR Resource ID.</p> <p>It seems that there can be a gap with meter data submission. In other words if on 3/1/2010 we apply and receive a PDR Resource ID from the DR Application, next step is for Merchant Office to submit the RDT which gets the PDR Resource ID into the MF. Subsequent to that the PDR Resource ID would be available in our systems. Let's say it all gets completed the same day for simplicity (3/1/2010) and in the MF we indicate that the active date of the PDR is 6/1/2010, meaning 6/1/2010 is the first Trade Date the PDR would be available for use in the CAISO market. From the description in Section 3.8.1 it sounds like we would send 45 days of historical data for 1/15/2010-2/28/2010 and then begin daily submission starting with the trade date of 6/1/2010. Resulting in a gap between 2/28/2010 - 5/31/2010.</p>	<p>would be possible for a participant to begin uploading daily meter data upon the creation of the Registration, ensure the daily feed is working correctly, and then load sufficient historical data to provide 45 days. This treatment is acceptable. Participants can begin loading meter data when the Registration is approved and becomes effective, which will be prior to receiving the Resource ID</p>
29	Implementation Plan	<p>Can CAISO provide a "Detailed Scenario/Use Case" on meter data submission (when are we required to submit historical meter data and when are we required to submit daily (T+5B/T+43C))?</p>	<p>CAISO provided the details of meter data submission in the 1/5/2010 workshop.</p> <p>http://www.caiso.com/2495/2495ccf168cd0.pdf</p>
30	Implementation Plan	<p>During PDR workshop on 12/15/2009, we reminded CAISO that conducting the "default load adjustment" at the pre-calc level can cause increased charges (or overpayments) to LSEs. We provided the following list of potentially impacted charge codes: 6470, 6051, 6475, 6474, 6774, 4535 (GMC), and 4536 (GMC). CAISO will provide clarifications on this issue at the 1/5/10 workshop and will explain its policy.</p>	<p>CAISO provided the list of impacted charge codes in the 1/5/2010 workshop.</p> <p>http://www.caiso.com/2495/2495ccf168cd0.pdf</p> <p>This process will cause the LSE to verify more charge codes than expected, to be able to calculate and collect overcharges from the DRP.</p>
31	Meter Data	<p>When will the final formats be available for the Baseline, Default Load Adjustment, and Meter Before/After information be available? We need this information as soon as possible in order to begin coding our system. Again, we would prefer this information to be in CSV format if XML is not available. We request the file formats be posted to the website as soon as possible.</p>	<p>Technical specifications have been posted on the ISO website at:</p> <p>http://www.caiso.com/23bc/23bc873456980.html</p> <p>The CAISO will be happy to clarify any specific technical questions through the weekly SIUG Meeting or emails directed to PDR@CAISO.COM</p>
32	Meter Data	<p>In the 1/5/10 implementation workshop, slide 56 notes</p>	<p>The initial release of the DRS APIs will only support</p>

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		Baseline information as coming back in the XLS format. The PDRMeterData_v20091101.xsd file contains a MeasTypeMeterData of BASELINE. Does this mean baseline calculations for a resource will be returned in the new meter data API retrieve? If not, please define what data BASELINE refers to. Also, please define MeasTypeMeterData = VAR and MeasTypeMeterData = OTHER as well.	MeasTypeMeterData types 'LOAD' and 'GEN'.
33	Master File	Will master file PDR information be available via the Master File II API? If not, where will participants submit and view their master file information?	We will be using the generator portion of the Master File API to return PDR information to participants. There will be a new column to specify if a resource is only applicable to DA, but it will not be returned in the Master File II API. The existing MF APIs can be used to view and update PDR resources.
34	Meter Data	Will the new meter data API be changed so that Hour End will be used instead of HourStart? If not, please define how DST periods will be handled in the documentation.	Hour beginning has been changed to hour ending for meter data upload and download. Changes have been reflected in the XSD documents at: http://www.caiso.com/23bc/23bc873456980.html
35	Technical Interface Specification	Please clarify the Technical Interface Specification for PDR File Data Exchange Services, section 4.6.2. What elements are required as part of the request versus optional? Please include a grid like other technical specifications. The XSD seems to define resourceID and TradeDate as required for the request, but I would like confirmation of this.	Tech specs will be updated by the end of the week, 1/29, to include required versus optional data elements.
36	SIBR Interface Specifications	Has an updated SIBR Interface Specification been published for PDR? If so, where is it posted	There are no updates required for SIBR APIs to support PDRs.
37	BPMs	When will updated BPM's be posted for the settlements impacted by PDR? We need these to begin coding updates to our system for our clients. We believe the list includes the following : <ul style="list-style-type: none"> ▪ RT Energy pre-calc ▪ MSS Netting pre-calc ▪ Spin No Pay Quantity pre-calc ▪ Non-Spin No Pay Quantity pre-calc ▪ RUC No Pay Quantity pre-calc ▪ Charge code 6806 	Settlements BPMs were posted on 2/8/10.
38	Meter Data	Is it possible to request all meter data from the new meter data API at once? It looks like we have to specify an individual resource ID, so we wanted to make sure there was an option to request all data for a given trade date or range of trade dates.	PDR meter data requests require the resource ID and trade date range. This filter criterion is used to limit payload size.
39	Meter Data	Why isn't there just a tag to request the type of meter data (Load or Gen) in the RequestPDRMeterData_v20091101.xsd)? It seems the elements for the LoadMeterData and GenerationMeterData	The initial release of the DRS APIs only allow the retrieval of LOAD and GEN type meter data. The intended use is to use either LoadMeterData or GenerationMeterData for given request.

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		elements are all identical. Or is the intent of the request to allow both Load and Gen data to be requested at the same time for possibly different resources and different dates?	
40	Registration	Can a given Registration ID have multiple effective date ranges?	Yes, as long as the information (Locations) associated with that Registration ID remains unchanged. Once one or more locations are added or subtracted from the original Registration ID, a new Registration ID and effective date is required.
41	Registration	Can a Registration ID be mapped to multiple different PDR Resources?	No, each registration ID is associated to a single PDR Resource.
42	Meter Data	Will PDR resources have a MSID meter reference returned in file similar to OMAR? Or will this be the MRID of the PDR Resource?	At this time the "MSID" concept is only associated with resources within the Omar Application. It will be the MRID of the PDR Resource.
43	Technical Interface Specification	How will requests that return no data be handled? We would really prefer to not have the application return an HTTP 500 Server Error in the header (SIBR does this currently).	If no data is available for a given request an appropriate message will be returned in a StandardOutput xml response, please refer to section 4.9 in the Technical Interface Specification for DRS File Data Exchange Services for an example.
44	Meter Data	We are looking for sample files in CSV or XLS format (again, our preference is CSV) from the DRS system for Baseline, Default Load Adjustment, and PDR No Pay Dispatch Performance (Meter Before/After) available from the User Interface only. These loads are not part of the technical specs for the DRS system since there is no API for this data. We are planning to load these files into our system for users to analyze and compare against shadow calculations. The last update I heard was that this was waiting on a vendor response. Without the sample files from the vendor system, we cannot proceed with development on loads or GUI windows for this data. We consider this request to be critical and this time and need the files as soon as they are available.	Please look at the attached draft specifications. This is the default format. If you wanted the DRS user to 'Save As' type = .csv, that can be done after they download the file. Obviously, that would change the formatting from what is attached.
45	Technical Interface Specification	Can users change anything about the xls file saved from the DRS system prior to downloading? I am trying to make sure users cannot modify the layout of the data in any way so that we can code something to load this file. If this is the default layout that will always be available to users to download, that may be acceptable.	They cannot change the default layout prior to downloading.
46	Technical Interface Specification	Is there any way to not have multiple tabs in the file?	Not prior to go-live of PDR. We can log this as an enhancement to be considered for post go-live.
47	Technical Interface Specification	We will have to force our users to manually "Save As" CSV for every tab of the xls generated by the system. We must guarantee that the original format will always be the same.	A business process will have to be in place to ensure that users do not change the format once they save it in xls. The user can change the format once the file has been saved locally.
48	Technical Interface	Under the "Results" heading, what types of failures are	This is a text based field that could contain any type of

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	Specification	possible? Can you please provide a list along with the scenario that causes each failure?	system failure, as well as failures related specifically to the report.
49	Technical Interface Specification	I am confused about the "Event Date" section. What is the Start HE and End HE in columns B and C vs the HE1 through HE 24 in cells E10 through AB10? Is that just telling us the hour being examined in the dataset? Can multiple hours be returned in one xls? Or will multiple xls be returned per trade date per hour?	The Start HE and End HE designate the duration of the Event and possible values are 1-24. The HE1-HE24 are used to designate all the hours where an event occurred and possible value are Y (an event occurred during that HE) and N (an event did not occur during that HE). The report is for one trade date.
50	Technical Interface Specification	When will an API be available to download this information?	No API is planned prior to PDR go-live. We can log this as an enhancement to be considered for post go-live.
51	Meter Data	Do you use xls for the DLA and Meter Before/Meter After files?	Yes.
52	General	<p>We are looking at a Go Live date of 5/1 and we can't test any of our APIs until 3/29. This gives us effectively less than one month to test our connectivity, test all our system functionality, and get a release to our clients. Our client would like to test our software in the market simulation so they can conduct their own testing. Without being able to test our APIs prior to delivering software to our clients, we are potentially at risk of having to release emergency patches to our clients to fix system functionality.</p> <p>Is there any way for us to get system access sooner just to test connectivity (request and data return)? As a vendor, the CAISO timelines for system testing do not allow us sufficient time to develop and get our clients a release for them to properly participate in market.</p>	At this time, the systems will be available on March 29 for Market Participants to perform end-to-end testing and to test their APIs. We will communicate early availability of systems (if this is possible) via the SIUG calls in March.
53	Meter Data	Please provide the date when the PDR Meter API will be available in Market Simulation. CAISO indicated mid-March on the SIUG call, but we would like an exact date as soon as possible.	The answer to your question regarding the availability of the meter data API for the DR system during market simulation is as follows: The API functionality is part of the PDR End-End simulation that will run from March 29 through April 30th. However, the first week of this interval will be dedicated to running structured scenarios, so you will have access to the API four weeks beginning April 5th. The API will also be available beyond that timeframe in the STAGE environment, subject to the caveats mentioned by Jami Long (i.e. constraints associated with normal promotion through that environment).
54	Outage Management	What are the SLIC Cause Codes for PDR?	<p>Below are the two new outage codes for PDR:</p> <ol style="list-style-type: none"> 1. PDR Outage - unavailability of awarded AS capacity 2. PDR Outage - anomalous days for baseline calculations