Issue Paper

Direct Participation of Demand Response Resources in CAISO Electricity Markets

December 22, 2008
Direct Participation of DR Resources

Table of Contents

1. Introduction ............................................................................................................................3
2. Process and Proposed Timetable ..........................................................................................4
3. Design Features and Issues to be Resolved ........................................................................5
   3.1. Terminology, Roles, and Responsibilities of the “Aggregator of Retail Customers”......5
   3.2. Relationship between the End-use Customer, LSE/ESP, UDC, SC, CAISO and ARC, and Required Registration/Notification Processes among Involved Parties. .............................6
   3.3. Existing Tariff Impediments ...........................................................................................7
   3.3.1. One SC One Meter................................................................................................7
   3.3.2. Participating Load Defined as a CAISO Metered Entity ........................................8
   3.4. Specification for Metered Data ......................................................................................8
   3.5. Settlement Issues ..........................................................................................................8
   3.7. Credit Requirements ...................................................................................................10

Table 1 – High-Level Timeline ..............................................................................................5

Appendix A - Summary of Relevant Sections of Order 719 on Direct Participation ............11

Acronyms used in this report

<table>
<thead>
<tr>
<th>TLA</th>
<th>Description</th>
<th>TLA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC</td>
<td>Aggregator of Retail Customers</td>
<td>LSE</td>
<td>Load Serving Entity</td>
</tr>
<tr>
<td>CAISO</td>
<td>California Independent System Operator</td>
<td>M&amp;V</td>
<td>Measurement &amp; Verification</td>
</tr>
<tr>
<td>CPUC</td>
<td>California Public Utility Commission</td>
<td>MAP</td>
<td>Markets &amp; Performance</td>
</tr>
<tr>
<td>CSP</td>
<td>Curtailment Service Provider</td>
<td>MRTU</td>
<td>Market Redesign &amp; Technology Upgrade</td>
</tr>
<tr>
<td>DR</td>
<td>Demand Response</td>
<td>NOPR</td>
<td>Notice of Proposed Rulemaking</td>
</tr>
<tr>
<td>ESP</td>
<td>Energy Service Provider</td>
<td>RTO</td>
<td>Regional Transmission Operator</td>
</tr>
<tr>
<td>FERC</td>
<td>Federal Energy Regulatory Commission</td>
<td>SC</td>
<td>Scheduling Coordinator</td>
</tr>
<tr>
<td>ISO</td>
<td>Independent System Operator</td>
<td>TAPS</td>
<td>Transmission Access Policy Study Group</td>
</tr>
<tr>
<td>LPPC</td>
<td>Large Public Power Council</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Introduction

Nationwide, experience with Demand Response (DR) resources has evolved over the years. Observers and participants have noted that permitting DR providers to directly bid demand response resources in the organized wholesale electricity markets could further facilitate DR’s expansion and impact. In this regard, the Federal Energy Regulatory Commission (FERC) has expressed a clear intent to establish this “direct participation” model\(^1\) as a policy within organized electricity markets.

On October 17, 2008, the FERC issued Order 719\(^2\) promoting direct participation by DR providers or, as referred to by the FERC, Aggregators of Retail Customers (“ARCs”), in wholesale electricity markets. In summary, the FERC ruled to require RTOs and ISOs to amend their market rules as necessary to permit an ARC to bid demand response on behalf of retail customers directly into the RTO’s or ISO’s organized markets, unless the laws or regulations of the relevant electric retail regulatory authority do not permit a retail customer to participate. A further summary of the relevant sections of Order 719 pertaining to the direct participation by ARCs can be found in Appendix A to this document.

The CAISO has been working on enhancements to its Market Redesign and Technology Upgrade (MRTU) market design to enable greater demand response participation in its markets, and the features that will result from implementation of Order 719 will add to the enhancements that are already being designed. The proposed market design enhancements that are planned for implementation within 12 months after the initial implementation of MRTU Release 1 are built on two general structures for demand response resources:

1. Dispatchable Demand Resource (DDR), which enhances the MRTU Release 1 functionality for Participating Load by adding market capability for spinning reserve and regulation as well as non-spinning reserve, participation in the real-time market as well as the day-ahead market, and reflecting operational characteristics of demand resources such as maximum duration of dispatches, maximum number of dispatches per day, and maximum amount of electric energy reduction; and

2. Proxy Demand Resource (PDR), which provides a simplified mechanism for demand response resources to participate in the CAISO’s markets, with most of the same functionality available as in the DDR model, but without the requirements of creating the custom load aggregations that are used in the Release 1 Participating Load functionality. The ISO intends to make the PDR functionality available for participation in the day-ahead energy market within a few months after the MRTU Release 1 implementation, followed by further enhancements within the timeframe of the DDR implementation.

Details of the CAISO’s proposed market design enhancements can be found at:


- Presentation on Post-Release 1 MRTU Functionality for Demand Response: [http://www.caiso.com/2074/2074e67d2a600.pdf](http://www.caiso.com/2074/2074e67d2a600.pdf)

---

\(^1\) The CAISO defines “Direct Participation” as the ability for end-use customers or Aggregators of Retail Customers (ARCs) to offer demand response resources into the CAISO’s wholesale electricity markets, through a Scheduling Coordinator, assuming all established requirements and regulations of the CAISO and of the Local Regulatory Authority have been met and any required coordination with the load-serving entity satisfied.

\(^2\) FERC Final Rule re Wholesale Competition in Regions with Organized Electric Markets (125 FERC ¶ 61,071) (issued in Docket Nos. RM07-19-000 and AD07-7-000 on October 17, 2008) (hereinafter “FERC Oct 17 Final Rule”).
The purpose of this paper is to identify additional issues that must be resolved so that the
CAISO’s proposed market design enhancements comply with Order 719 and enable ARCs to
directly bid demand response resources in the organized wholesale electricity markets. The
proposed resolution of these issues would then be presented for approval as part of the overall
market design enhancements for demand response, first to the CAISO Board of Governors, and
then to the Federal Energy Regulatory Commission (FERC), through revised tariff language.
This paper is not intended to lay out specific modifications to the CAISO’s proposed market
design enhancements, but rather to determine the scope of effort based on the identified issues,
and if and how the issues impact the CAISO’s proposed market design enhancements.

The paper begins with the proposed timeline. The next section, “Design Features and Issues to
be Resolved” lays out each of the key issue areas. Generally, each topic begins with an
overview discussion followed by questions that the CAISO poses to stakeholders to consider
and provide comments.

The CAISO invites comments on whether this Direct Participation Issue Paper identifies the
pertinent issues, and adequately describes the factors that must be considered in order to
resolve them. As such, the CAISO would appreciate stakeholder comments that are sufficiently
detailed to enable the CAISO to understand any new issues or nuances that should be
considered in its straw proposal.

2. Process and Proposed Timetable

Direct Participation allows demand response to be bid directly into the CAISO’s market as a
unique resource, separate and distinct from the Load-Serving Entity (LSE) submitting the overall
load schedule. This paper is the first step in the process to identify issues resulting from Direct
Participation, and their impacts on the CAISO’s market design and operations. Its purpose is to
identify issues that need to be resolved in light of the CAISO’s proposed market design
enhancement, and to identify any necessary tariff amendments for submission to FERC. This
paper does not attempt to provide any CAISO proposal or any specific recommendation.
Rather, it is intended as a stepping off point to discuss all of the components that need to be
considered in the final market design that will meet the required objectives and stand the test of
time. The CAISO will hold a conference call with stakeholders on January 5, 2009 to discuss
the contents of this paper. The CAISO requests that stakeholders provide written comments by
close of business on January 9, 2009 to the Direct Participation Mailbox,
directparticipation@caiso.com. The CAISO seeks comments of two general types: first,
comments on the scope of effort as outlined in this document; and second, comments regarding
any of the specific DR design issues identified in this paper or on the upcoming conference call.
The CAISO will provide additional guidance, as appropriate and needed, for stakeholder
comments following the conference call.
<table>
<thead>
<tr>
<th>Tentative Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/22/08</td>
<td>Publish Issue Paper</td>
</tr>
<tr>
<td>1/05/09</td>
<td>Stakeholder Conference Call</td>
</tr>
<tr>
<td>1/9/09</td>
<td>Due Date for Stakeholder Comments</td>
</tr>
<tr>
<td>1/15/09</td>
<td>Stakeholder Meeting / Working Group Meeting</td>
</tr>
<tr>
<td>1/22/09</td>
<td>Publish CAISO Straw Proposal</td>
</tr>
<tr>
<td>2/2/09</td>
<td>Stakeholder Meeting or Conference Call followed by Stakeholder written comments / Joint MSC meeting</td>
</tr>
<tr>
<td>2/25/09</td>
<td>Publish Draft Final CAISO Proposal Paper</td>
</tr>
<tr>
<td>TBD</td>
<td>Stakeholder Meeting or Conference Call followed by Stakeholder written comments</td>
</tr>
<tr>
<td>TBD</td>
<td>MSC Opinion Adopted</td>
</tr>
<tr>
<td>3/25/09</td>
<td>Presentation to CAISO Board of Governors for Decision on Direct Participation of DR resources in CAISO Wholesale Markets</td>
</tr>
<tr>
<td>4/27/09</td>
<td>File Compliance Filing with FERC on enabling the Direct Participation of DR resources in CAISO Wholesale Markets</td>
</tr>
</tbody>
</table>

Table 1 – High-Level Timeline

3. Design Features and Issues to be Resolved

In order to embrace direct participation by DR resources in California’s wholesale market, the CAISO must identify related issues, and assess their impacts on previously proposed and possible future market design enhancements. This section provides an initial assessment and elicits discussion to address the impact and modification on the CAISO’s proposed DR market design models.

3.1. Terminology, Roles, and Responsibilities of the “Aggregator of Retail Customers”

FERC has identified a new market participant that it refers to as an “Aggregator of Retail Customers”. The CAISO and stakeholders need to reach agreement as to what the roles and responsibilities are of the ARC, and what name should be given to this entity, for use on a going-forward basis, e.g. ARC, Curtailment Service Provider, DR Provider, etc. This Issue Paper uses the term “Curtailment Service Provider” (“CSP”), which is used in some other organized markets. The term CSP highlights the fact that this entity functions separately from a LSE to bid demand response into the CAISO’s markets on behalf of end-use customers, through a Scheduling Coordinator, separately from the scheduling of the energy that the end-use customers consume (and which is a part of the LSE’s overall demand bid).
3.2. Relationship between the End-use Customer, LSE/ESP, UDC, SC, CAISO and ARC, and Required Registration/Notification Processes among Involved Parties.

Within the overall scope associated with managing the DR resources, it may be necessary to manage the registration of DR resources with a single CSP / LSE at any one time.

There are three distinct registration functions that are required to be addressed:

- New DR resource wishing to register with a CSP / LSE,
- Existing DR resource registered with a CSP / LSE who wishes to change to a different CSP / LSE, and
- Existing DR resource registered with a CSP / LSE that wishes to withdraw from the DR market.

Within the three scenarios above, to make the DR resource market effective there needs to be a series of controls / checks and balances to ensure appropriate scheduling of DR resources. The CAISO will establish necessary rules for ensure the integrity of registering and scheduling DR resources. Appropriate provisions for DR resources appear to be that:

- A DR resource can only be registered to one CSP / LSE at a time
- The DR resource is registered to the correct CSP / LSE
- All registered DR resources are aware that they are registered with a specific CSP / LSE
- Confirmation of any change of CSP / LSE is communicated to the DR resource, and the DR Resource affirmatively confirms that change to the CAISO
- A DR resource who wishes to leave the DR resource pool confirms that it has been removed
- The CSP / LSE’s report to the CAISO of DR capability is accurate and reflects the registered DR resource capacities.
- Load schedules and DR bids are submitted using consistent load aggregations by the LSE and CSP, to the extent that a DR program requires such consistency.

The issue of how customer migration will be tracked as end-use customers enroll in and discontinue their participation in demand response programs, and move between LSEs including direct access Energy Service Providers, particularly if the end-use customers’ migration between CSPs and LSEs do not occur at the same time, will need to be resolved through the stakeholder process. The CAISO’s DR programs require the aggregation end-use within local areas (Custom Load Aggregation Points (Custom LAPs) within Local Capacity Areas for DDR, and tracking within Sub-LAPs for PDR), and customer migration will require updating of the aggregation data that underlie the submission of Schedules and Bids by LSEs and CSPs, as well as the operational characteristics of DR resources (reduction capacity, loss factors, etc.), to ensure that correct prices are applied in settlements. If customer migration results in changes to the products (e.g., Ancillary Services) that are bid into CAISO markets, Schedule 1 of the Participating Load Agreement will require updating, and updates to the Participating Load’s implementation plan will track other resources attributes such as available capacity.
In other ISO markets, the responsibility of providing the control for the registration / confirmation process is carried out by the ISO. How this will be managed within the scope of the DR program under the CAISO’s MRTU program is an open question that needs to be resolved.

Both the LSE and CSP will need to be represented by a Scheduling Coordinator (or be a SC themselves). The current Scheduling Coordination Certification requirements may be found at the CAISO website at:

http://www.caiso.com/docs/2005/10/05/2005100520241822328.html

3.3. Existing Tariff Impediments

3.3.1. One SC One Meter

All CAISO Market Participants parties must use a Scheduling Coordinator to participate in the CAISO’s markets.\(^3\) All Bids submitted on behalf of a Load – whether or not it is a Curtailable Demand – must be submitted by a Scheduling Coordinator. Accordingly, Demand Curtailment Bids must be submitted by a Scheduling Coordinator. The Scheduling Coordinator is the recipient of Schedules and Dispatch from the CAISO, and is responsible for communications with any entities that the Scheduling Coordinator represents. The existing structure of the Tariff reflects the current functionality of the CAISO’s systems software and market, which does not have provisions to address dual Bids, i.e., Bids submitted by more than one Schedule Coordinator on behalf of the same Load, with respect to CAISO Metered Entities.\(^4\)

The tariff issue of “one SC per meter” arises when there is the possibility of CSP using a different Scheduling Coordinator to submit its Demand Curtailment Bids, which is distinct from the Scheduling Coordinator of the LSE that serves the Load.\(^5\)

In such circumstances, although the Scheduling Coordinator for the CSP would be submitting a Demand Curtailment Bid and the Scheduling Coordinator for the LSE would be submitting a Load Bid, both Bids would concern Demand from the same Load. This situation highlights a significant policy issue regarding compensation, an issue that is separate from the tariff language itself. The MRTU Tariff does not address how to allocate the value of a dispatched Demand curtailment between two Scheduling Coordinators (and the underlying interests that they represent): (1) the Scheduling Coordinator for the CSP and (2) the Scheduling Coordinator

---

\(^3\) See Tariff Section 4.5.1 (“Only Scheduling Coordinators that the CAISO has certified … may participate in the CAISO’s Energy and Ancillary Services Market”) and Tariff Section 4.3.1.2.

\(^4\) CAISO Tariff provision 4.5.1.1.3 only speaks to CAISO Metered Entities, not SC Metered Entities. Both CAISO Metered Entities and SC Metered Entities are defined in the CAISO Tariff (Appendix A).

\(^5\) CAISO Tariff section 4.5.1.1.3 provides:

If two or more Scheduling Coordinators apply simultaneously to register with the CAISO for a single meter or Meter Point for a CAISO Metered Entity or if a Scheduling Coordinator applies to register with the CAISO for a meter or Meter Point for a CAISO Metered Entity for which a Scheduling Coordinator has already registered, the CAISO will return the application with an explanation that only one Scheduling Coordinator may register with the CAISO for the meter or Meter Point in question and that a Scheduling Coordinator has already registered or that more than one Scheduling Coordinator is attempting to register for that meter or Meter Point. The CAISO will send the Scheduling Coordinator Applicant the name and address of the applicable Scheduling Coordinator or Scheduling Coordinator Applicant.
for the LSE, and a substantive policy decision needs to be formulated about how any allocation should be made.

3.3.2. Participating Load Defined as a CAISO Metered Entity

The CAISO tariff currently defines participating load as a CAISO Metered Entity. The tariff will need to be updated to allow Participating Load under the definition of an SC Metered Entity.

3.4. Specification for Metered Data

The current Metering Protocol and Tariff requirements may be found at the CAISO website at:

http://www.caiso.com/docs/2005/10/01/200510011606575762.html

The responsibilities for meeting these requirements will need to be addressed when there are separate LSEs and CSPs.

Participating Loads and their Scheduling Coordinators must provide revenue quality metering data to the CAISO. Participating Loads and their SCs must ensure that revenue Meter Data is made available to the CAISO in accordance with the CAISO Tariff and the CAISO Metering Protocol. The specific requirements for CAISO Metered Entities (if applicable) and details regarding the CAISO Certified Meter, including the CAISO’s standards for the certification of a “Load-only” meter, can be found in the CAISO Metering section on the CAISO Home Page at http://www.caiso.com/docs/2005/10/01/2005100114481329995.html.

For all Loads of Participating Loads, Sections 2.2.3 and 2.3.4 of the Metering Protocol of the CAISO Tariff require that revenue Meter Data must be recorded and submitted at 5-minute intervals for purposes of financial settlements. Pursuant to that requirement, ordinarily all Loads participating in CAISO markets, including A/S and real-time Imbalance Energy markets, must have revenue quality metering equipment that records data at intervals no longer than five minutes. For the MRTU Release 1 and thereafter, the 5 minute interval reading may be constructed by dividing a 15-minute interval reading into three equal values.

Among the issues to be considered is whether the same meter is applicable for settlement and validating compliance of services provided by the LSE (i.e., Energy) and the CSP (e.g., Ancillary Services). As discussed in the User Guide that is being developed for Participating Load resources in MRTU Release 1, a separate set of measurements is already required as telemetry for Participating Loads that provide Ancillary Services, while Settlement Quality Meter Data are used for Energy settlement. Whether there are needs for the LSE and CSP to maintain separate metering (rather than both entities using a common meter), whether it would be technically feasible for telemetered meters to be registered to the Scheduling Coordinator for the DR Participant, whether the data from such meters could be used for some settlement purposes, and the technical and financial feasibility of installing independent meters to be registered to the CSP’s Scheduling Coordinator are all issues for consideration.

The CAISO seeks input from stakeholders on the roles and responsibilities around meter data management and on data access needs between the LSE and CSP. In addition, the CAISO is interested in detailed data and process flows specific to meter data and, ultimately, settlements data.

3.5. Settlement Issues

Settlement issues need to be thoroughly vetted and clear rules for settlement validation and
dispute resolution must be developed between the CSP and LSE, as applicable and appropriate. A few issues for stakeholders to consider and to add to in follow up comments are as follows:

- How to resolve the “double payment” issue between the LSE and CSP (i.e., the LSE’s metered demand being reduced in real-time settlements due to a load curtailment, and the CSP also receiving a payment for executing the load curtailment), and implications for settlement cash flows (direct settlements of Energy from CAISO to CSP, or settlement by CAISO to LSE followed by bilateral settlement between LSE and CSP)
- Any reconciliation required between the CSP and LSE
- Roles and responsibilities around settlement data, data retention, data management and data sharing
- Confidentiality issues between the LSE, CSP, and CAISO
- Resolution of settlement disputes between the LSE and CSP. (Disputes by the LSE or CSP with CAISO processes would use the existing CAISO dispute resolution process.)


At this time, the CAISO has not evaluated the advantages and disadvantages of specific M&V approaches. As input to future evaluations of potential approaches, the CAISO invites comments on approaches including but not limited to the following.

**Meter Before / Meter After**

Meter Before / Meter After model estimates a resource’s electricity reduction in consumption by comparing a measurement prior to the DR event, relative to a similar measurement after the DR event has commenced.

The measurement is either based on real-time telemetry and/or after-the-fact metering. The measurement interval is typically of a short duration (minutes or hours) and typically does not consider historical performance.

**Estimated Baseline**

Estimated Baseline model estimates a resource’s electricity consumption based on its historical performance along with other variables such as weather, relative humidity and calendar data. The ultimate goal is to predict what the load might have been had the demand response event not been called. This methodology is similar to the technologies utilized to forecast load.

This approach is dependent on the presence of interval metering on each load, together with a calculation of a specific baseline for each load, which is typically a weighted regression analysis. To define the shape of the baseline curve and accommodate any scaling factors, this approach takes account of exclusion rules and transient factors such as:

- Temperature
- Relative Humidity
- Day of the week
- Sunrise / Sunset times

An alternative estimated baseline calculation, where interval meters are not present, utilizes statistical modeling of the load to develop a baseline for each individual load resource. Typically,
data used in the statistical determination of the baseline spans an extended time-period to minimize any potential local anomalies, and prior DR events are excluded as are known load excursions such as storm conditions.

The baseline shape and scaling are defined utilizing exclusion rules, and event day adjustments in the same way as the estimation utilizing interval meter data, above.

**Maximum Base Load**

There are no baseline calculations currently defined for Maximum Base Load evaluations, the M&V is evaluated against the contracted maximum base load value that is pre-defined, with the DR participant maintaining their load at or below the pre-defined level during the DR event.

Other approaches or techniques may better suit the wholesale markets, including approaches that are currently being utilized. As such, the CAISO is generally interested in exploring with stakeholders:

- What approaches should be considered in the development of the baseline load values:
  - Comparable Day values, with or without particular adjustment factors
  - Calculated baseline values
  - Others?

- How applicable are the current set of Load Impact Protocols developed under the CPUC DR OIR and can these be applied to DR participating in the wholesale markets? If they are not applicable, what changes would be needed to make them applicable or would more substantial and fundamental changes be required?

- Can the current form and precision of existing measurement and verification approaches be utilized or are new approaches needed for application to the wholesale markets?

- Should there be uniformity on how demand resources are measured and verified across markets, e.g. Day-ahead Market and Real-time Market?

- How should the LSE load schedule be considered in the overall M&V scheme?

- Should a set of baselines be developed for general load types with the ability to apply for an exception? What would trigger “exceptional” treatment and how should such exceptions be handled/evaluated?

- Which entity has responsibility for validating the type of customer (e.g., retail rate), loss factors, and actual reduction, for determining what M&V approach is appropriate for different end-use customers, and for performing the baseline calculations?

### 3.7. Credit Requirements

In the event that financial penalties are triggered due to non-performance or under-performance, the CAISO should have assurance that it will receive payment. Each CSP’s liability must be evaluated and a credit requirement developed. Credit requirements would also be needed for SCs who represent DR resources, because any financial penalties triggered during the delivery period would accrue through the CAISO settlement system to the relevant SC. What credit requirements need to be applied to the SC representing or performing the duties of a CSP?
Appendix A - Summary of Relevant Sections of Order 719 on Direct Participation

FERC Final Rule re Wholesale Competition in Regions with Organized Electric Markets (125 FERC ¶ 61,071) (issued in Docket Nos. RM07-19-000 and AD07-7-000 on October 17, 2008) (hereinafter “FERC Oct 17 Final Rule”). The FERC Oct 17 Final Rule states in pertinent part (numbers reflect Paragraphs numbering of the FERC Final Rule:

154. The Commission adopts in this Final Rule the proposed rule to require RTOs and ISOs to amend their market rules as necessary to permit an ARC to bid demand response on behalf of retail customers directly into the RTO’s or ISO’s organized markets, unless the laws or regulations of the relevant electric retail regulatory authority do not permit a retail customer to participate. We find that allowing an ARC to act as an intermediary for many small retail loads that cannot individually participate in the organized market would reduce a barrier to demand response. Aggregating small retail customers into larger pools of resources expands the amount of resources available to the market, increases competition, helps reduce prices to consumers and enhances reliability. We also agree with commenter’s that this proposal could encourage development of demand response …. 

155. … In the NOPR, the Commission sought to address the concerns of state and local retail regulatory entities by proposing to require that an ARC may bid retail load reduction into an RTO or ISO regional market unless the laws or regulations of the relevant electric retail regulatory authority do not permit a retail customer to participate in this activity. The Commission’s intent was not to interfere with the operation of successful demand response programs, place an undue burden on state and local retail regulatory entities, or to raise new concerns regarding federal and state jurisdiction, as some commenter’s argue. As described above, we clarify that we will not require a retail electric regulatory authority to make any showing or take any action in compliance with this rule. Rather, this rule requires an RTO or ISO to accept a bid from an ARC, unless the laws or regulations of the relevant electric retail regulatory authority do not permit the customers aggregated in the bid to participate.

157. With regard to LPPC’s request that ARCs not bid on behalf of load served by ARCs that are not RTO or ISO members, SMUD’s request for clarification that loads outside of an RTO’s or ISO’s control area would not participate in demand response programs, and TAPS’s comment that the proposal should not require a change to an existing retail load reduction program, the continuing role of the relevant retail electric regulatory authority adequately addresses these concerns.

158. Further, we agree with the comments that, because each region’s market design is different, it is important to permit each RTO or ISO to design ARC provisions that account for these differences. Therefore, instead of developing pro forma language or requiring RTOs and ISOs to make detailed generic market rule amendments, we direct RTOs and ISOs to amend their tariffs and market rules as necessary to allow an ARC to bid demand response directly into the RTO’s or ISO’s organized market in accordance with the following criteria and flexibilities that remain largely unchanged from those advanced in the NOPR:

a. The ARC’s demand response bid must meet the same requirements as a demand response bid from any other entity, such as an ARC. For example:

   i. Its aggregate demand response must be as verifiable as that of an eligible ARC or large industrial customer’s demand response that is bid directly into the market;

   ii. The requirements for measurement and verification of aggregated demand response should be comparable to the requirements for other providers of demand response
resources, regarding such matters as transparency, ability to be documented, and ensuring compliance;

iii. Demand response bids from an ARC must not be treated differently than the demand response bids of an ARC or large industrial customer.

b. The bidder has only an opportunity to bid demand response in the organized market and does not have a guarantee that its bid will be selected.

c. The term “relevant electric retail regulatory authority” means the entity that establishes the retail electric prices and any retail competition policies for customers, such as the city council for a municipal utility, the governing board of a cooperative utility, or the state public utility commission.

d. An ARC can bid demand response either on behalf of only one retail customer or multiple retail customers.

e. Except for circumstances where the laws and regulations of the relevant retail regulatory authority do not permit a retail customer to participate, there is no prohibition on who may be an ARC.

f. An individual customer may serve as an ARC on behalf of itself and others.

g. The RTO or ISO may specify certain requirements, such as registration with the RTO or ISO, creditworthiness requirements, and certification that participation is not precluded by the relevant electric retail regulatory authority. [fn 212 The RTO or ISO should not be in the position of interpreting the laws or regulations of a relevant electric retail regulatory authority]

h. The RTO or ISO may require the ARC to be an RTO or ISO member if its membership is a requirement for other bidders.

i. Single aggregated bids consisting of individual demand response bids from a single area, reasonably defined, may be required by RTOs and ISOs.

j. An RTO or ISO may place appropriate restrictions on any customer’s participation in an ARC-aggregated demand response bid to avoid counting the same demand response resource more than once.

k. The market rules shall allow bids from an ARC unless this is not permitted under the laws or regulations of relevant electric retail regulatory authority.

159. … Further, in response to those who ask us to require in this rule (1) that each RTO or ISO should be required to demonstrate net benefits of its program, (2) that bids should be aggregated on a local basis, and (3) that so called “double payment” should be either required or prohibited, we decline to do so here. Such issues are more appropriately addressed by each region in its compliance filing if it chooses to do so.

161. In accordance with NYISO’s recommendation, the Commission will clarify that its regulatory reference in § 35.28 (g)(ii) to “organized market” has the same meaning as proposed under (g)(i) and that ARCs are to comply with any necessary technical requirements under the RTOs or ISO’s tariff.