

DR EDC review process and Order 2222 consideration

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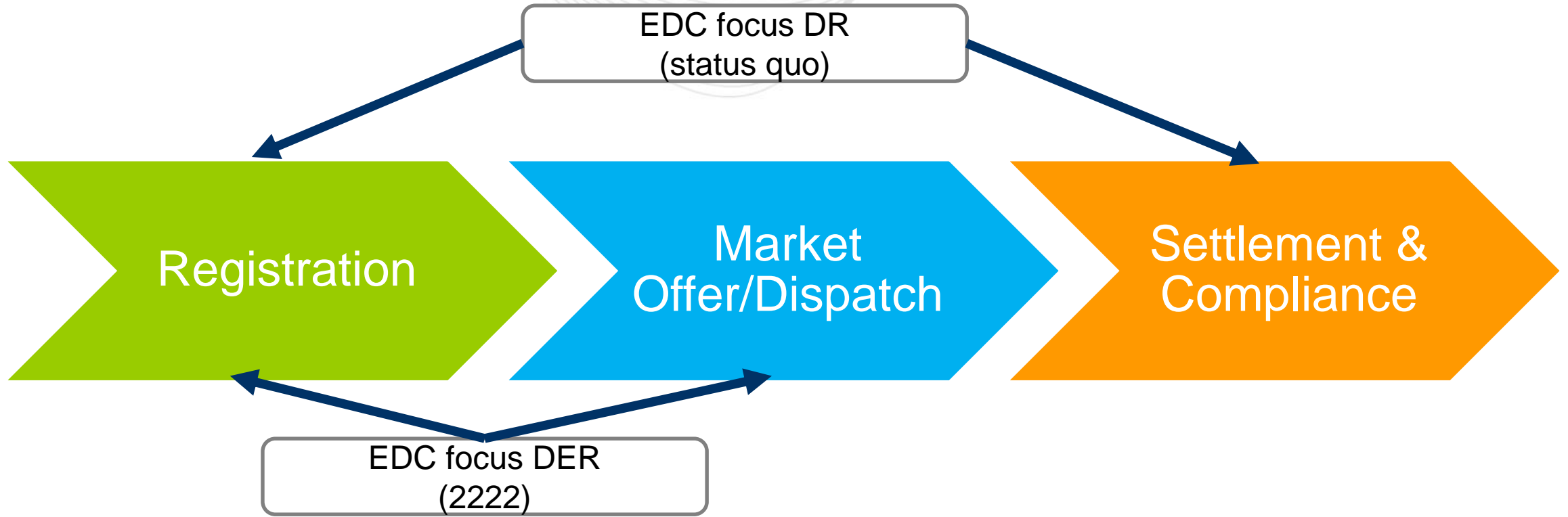
Manager

Capacity Market & Demand Response
Operations

DIRS - EDC Coordination Workshop

November 24, 2020

- DR allows any technology that modifies load “behind the retail meter” to participate in wholesale markets
 - Air conditioning cycle, emergency generator, battery, industrial process curtailment, etc.
- EDC defined as member that manages the distribution system and the underlying retail customers
 - Another member may represent the EDC if the EDC is not a member
- EDC’s play an integrated role in DR participation process
- PJM uses EDC account number to identify and track individual customer locations across all parties to help with administration



DR modifies load and therefore does not go through the interconnection queue

- Implement RERRA restrictions or qualifications to market participation
 - EDC provides RERRA evidence
- EDC verifies the following information for each location on the registration:
 - Transmission Zone
 - EDC account number associated with address
 - Energy Pricing Point – based on retail settlement (typically residual zonal aggregate)
 - Peak Load Contribution (PLC)
 - EDC Interval meter (as needed)
 - Loss Factors

EDC may approve or reject registration if data is inaccurate.



Wholesale market participation by DR may be impacted by Relevant Electric Retail Regulatory Authority (RERRA) Restrictions

- If EDC is large (>4 million MWh) then DR may participate in wholesale markets unless there is RERRA evidence that prohibits or qualifies participation.
 - Opt Out – no action by RERRA means DR may participate
- If EDC is small (= \leq 4 million MWh) then DR may not participate in wholesale markets unless there is RERRA evidence that allows participation.
 - Opt In – no action by RERRA means DR may not participate
 - Municipalities and cooperatives typically fit in this category

Reference:

EDCs by Zone by State by RERRA Size:

<https://www.pjm.com/-/media/etools/dr-hub/elrs-large-and-small-edcs.ashx?la=en>

RERRAs that Prohibit, Permit or Condition Retail Participation in PJM

Demand Response Programs:

<https://www.pjm.com/-/media/etools/dr-hub/opt-in-opt-out-rerra-evidence-for-dsr.ashx?la=en>

Additional EDC coordination based on Order 2222 (Registration – market entry process)

Work in Progress

- each proposed distributed energy resource is capable of participation in a distributed energy resource aggregation; and
- the participation of each proposed distributed energy resource in a distributed energy resource aggregation will not pose significant risks to the reliable and safe operation of the distribution system.
 - EDC may request PJM to impose operational limitations for specific resources on case by case basis
- Additional information necessary for the EDC review
 - This may include specifics (e.g. generator type, etc.) on DER that will participate.
- Review process should be less than 60 days
- EDC will not directly decide if DER may participate in the wholesale market but is subject to interconnection process, as required.

Must be transparent review process that does not create a barrier to entry

- Market Offer/Dispatch
 - EDC is not involved in this process
- Settlement & Compliance
 - EDC may review load data and associated line losses (energy and capacity market) prior to energy settlement or capacity compliance
 - PJM determines the load reduction amounts.

Additional EDC coordination based on Order 2222 (Market Offer/Dispatch and Settlement/Compliance)

Work in Progress

- establish a process for operational coordination, between PJM, EDC and DER aggregator
- require the DER aggregator to report to the RTO/ISO any changes to its offered quantity and related distribution factors that result from distribution line faults or outages.
- coordination protocols for the operating day that allow distribution utilities to override RTO/ISO dispatch of a distributed energy resource aggregation in circumstances where such override is needed to maintain the reliable and safe operation of the distribution system.

- DR Hub screen shot of EDC registration review process
- RERRA review process flowcharts

Pending Tasks

Pending Tasks | Locations | Registrations | Events | Settlements | Meter Data | Account and User Management

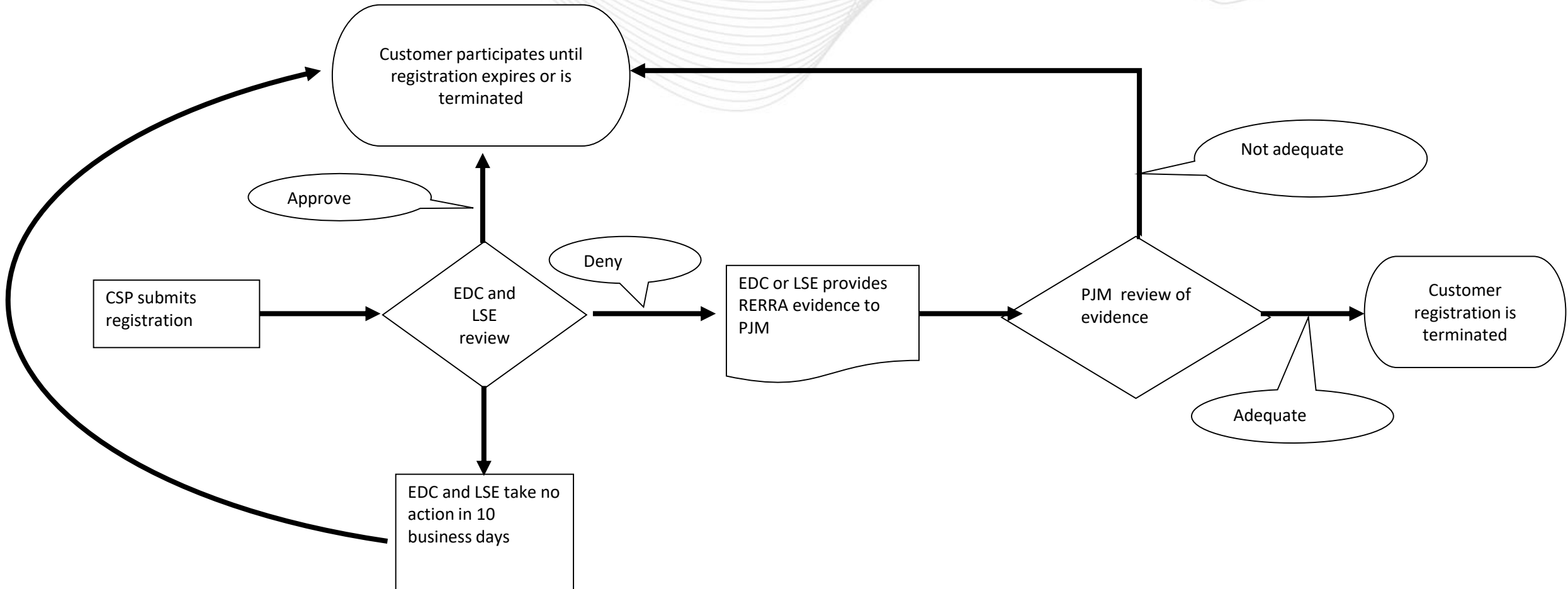
CSP Review Denial | EDC Registration | EDC Registration Extension | EDC Settlement

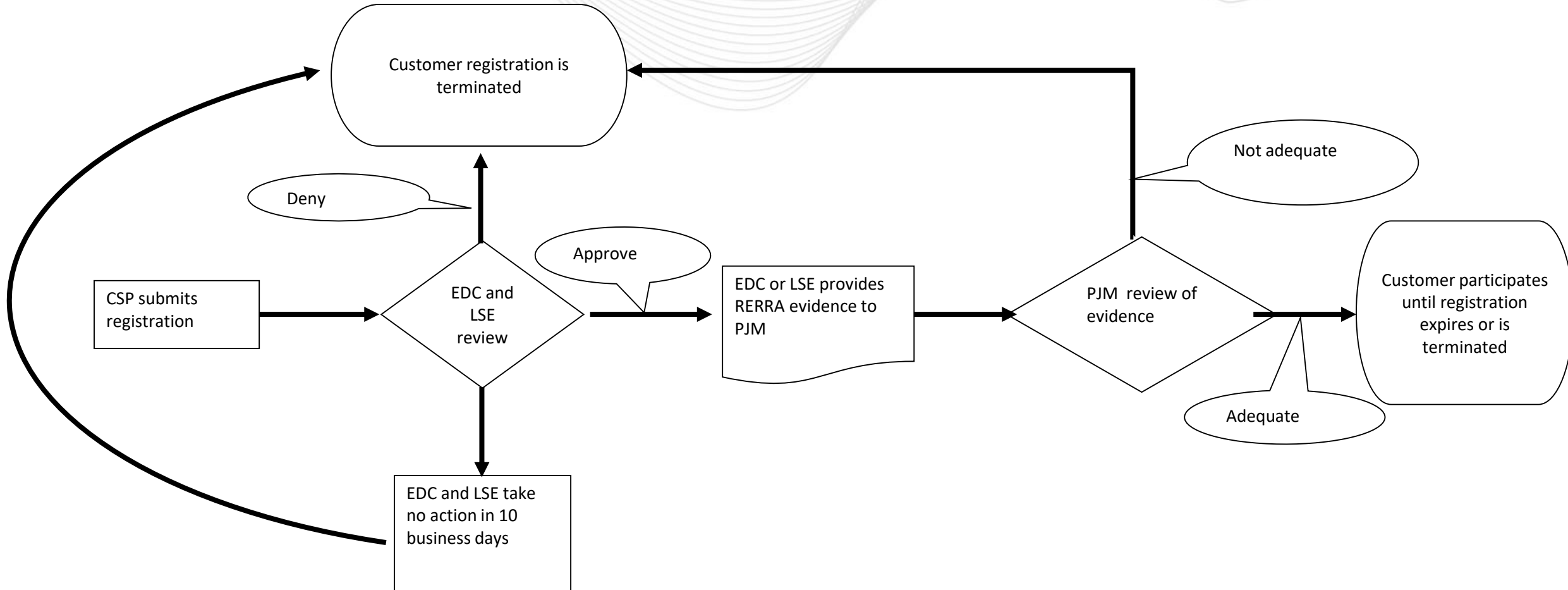
Refresh Reset

Select	Due Date	Reg ID	Program	Effective Date	Termination Date	CSP	Zone	Location ID	Address	EDC Account Number	Meter Type	Peak Load Contribution (kW)	Capacity Loss Factor
<input type="checkbox"/>	1/05/2018	1618546	Load Management DR Full	6/01/2018	5/31/2019	ENOC	PECO Pending	65307	1212 Debate Center, Pittsburgh, PA 88451	787878788 Pending	CSP Meter	750 Pending	1.05 Pending
<input type="checkbox"/>	1/05/2018	1618545	Economic	2/11/2018							CSP Meter	N/A No action needed	N/A No action needed
<input type="checkbox"/>	1/05/2018	1618544	Economic	4/22/2018							DC Meter Pending	N/A No action needed	N/A No action needed
<input type="checkbox"/>	1/05/2018	1618543	Load Management DR Full	6/01/2018							DC Meter Approved	750 Pending	1.05 Approved
<input type="checkbox"/>	1/05/2018	1618541	Economic	6/01/2018							DC Meter Approved	N/A No action needed	N/A No action needed
<input type="checkbox"/>	10/30/2016	1618521	Economic	09/20/2016							DC Meter	N/A No action needed	N/A No action needed

When the EDC is finished reviewing submissions, Click in the check boxes of those registrations that you wish to process and then click on the Submit Selected Reviews. Any corrections needed by the CSP will be in their pending task tab for review/correction. Those checked that are good-to-go shall be approved.







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