Table 1- Preliminary List of Items for Discussions (OBDRR-041)

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| **Topic** | **Current Protocol and OBD Language** | **Short-Term Approach** | **Long-Term Approach** |
| Background (Timing) | Current Protocol and Other Binding Document Language.Today there are no ALRs currently Registered | Assumes OBDRR 041 Updates to Requirements for Aggregate Load Participation in the ERCOT Markets or some “improved” version of the OBDRR).* May not require extensive system changes to implement
* May require an NPRR?
* May not enable full value of all equipment behind the premise meter
* Can only provide NSRS
 | Details TBD. Protocol and Other Binding Document Language would need to be developed and written. Would address participation in more than NSRS (RRS-PFR, ECRS and Reg), congestion management, SoC and other items.* System changes are required
* NPRR & OBDRR required
* At least few years away.
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| Participation Model  | Only homogenous aggregation is allowed. ALR is aggregation of only sites that are always load. | Allow heterogenous aggregation, ALR to be an aggregation of sites that are net load and sites that are net gen.* ALR participation in energy and AS limited to demand response capability (behavioral rule as well as systematic check) only
* -QSE must telemeter an aggregate consumption value for the ALR
* -Aggregate consumption value is sum of premise-level net consumption or injection values
* ALR using battery device telemetry must telemeter aggregated SOC capability
* SOC accounting in ERCOT Physical Response Capability (PRC) and Operating Demand Reserve Curve (ORDC) reserve calculation consistent with how we handle ESRs??
* ALR using battery device must meet duration requirements for Non-Spin AS
 | New construct. Aggregate Injection Withdraw Resource (AIWR). An AIWR is an aggregation of devices (not sites) that can follow dispatch instructions provide changes in withdrawal or injection quantities? |
| Congestion Management | All sites in an ALR must be within only one Load Zone.ERCOT has eight load zones including four competitive load zones | * Keep the current construct that requires all sites in the aggregation must be within only one Load Zone.
* Review current ALR cap of 5% of ERCOT Peak Load
* Review the maximum size allowance for each individual metered sites within an aggregation
* Consider if there may need to be limits for an electrically or geographically defined area of a Load Zone
 | Move to nodal dispatch and nodal settlement. More discussions needed. |
| Transmission and Operations Planning |  | Further internal discussions needed | Further internal discussions needed |
| Maximum Size of ALR | No Maximum Size | Further internal discussions needed | Further internal discussions needed |
| Maximum Size of individual sites within the aggregation  | * Individual sites within an ALR cannot be more than 10 MW, Or
* greater than the CIM Load in the model
 | Further internal discussions needed 1MW? | Individual sites within the heterogenous ALR shall not be greater than X MW? |
| ALR Program Cap  | 5% of load zone’s summer peak load~4,000 MW | Review and Lower the ALR program Cap, further internal discussions needed | Is Cap necessary?  |
| Device Characteristics | The devices are required to only be equipment that reduces load. | The devices are allowed to be equipment that reduces load or equipment that injects (generation or energy storage systems). | The devices can be equipment that reduces load and/or equipment that injects into distribution system. |
| Offer | “Bid to Buy” to be submitted. | “Bid to Buy” to be submitted. | “Bid to Buy/ Offer” to Sell to be submitted. |
| Dispatch | Dispatched using Zonal Shift Factor. Load is settled using Load Zone Price. | Dispatched using Zonal Shift Factor. Load is settled using Load Zone Price. (Energy injected at a metered site lowers QSE load and is settled/valued using Load Zone Price.) | Dispatched using Nodal Shift Factor. Withdrawals and injections are settled using nodal pricing. |
| Telemetry | Premise Telemetry is used for participation in SCED and for performance evaluation. | Premise or Device (load, battery, or generator) level telemetry is used as input to SCED and for performance evaluation.ALR participating in SCED and AS by using device level telemetry must also telemeter consumption value for the ALR  | Summation of Device Telemetry is used as input to SCED and for performance evaluation. Restriction to participate up to aggregated demand response capability may not be required |
| Performance Validation  | Baseline | For heterogenous aggregation using batteries or generators, is baselining needed? | Further internal discussions needed? |