

Framework to Identify and Address Barriers for Demand Response as Ancillary Services

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Hierarchical Framework

Opportunity exists for value to be generated by entities procuring DR to provide Ancillary Services



LSEs/ARCs able to extract value from offering DR Programs to provide Ancillary Services



Customers able to capture value from participating in DR Programs to provide Ancillary Services

Who is Eligible?

Barriers from Reliability and Market Rules

Opportunity exists for value to be generated by entities procuring DR to provide Ancillary Services

Barrier: *Reliability rules* don't always allow, and sometimes preclude, DR from providing various forms of A/S

Barrier: *Market rules* don't always allow, and sometimes explicitly or implicitly preclude, aggregation of DR resources from providing various forms of A/S

Who Can Bring the Resources?

Barriers from Retail Ratemaking and Market Entry

LSEs/ARCs able to extract value from offering DR Programs to provide Ancillary Services

Barrier: A/S costs usually a pass-through to customers

Barrier: LSE earnings opportunities are far greater from building generation than from running DR programs

Barrier: Aggregators may be precluded from offering DR programs directly to retail customers

Are Customers Interested?

Barriers from Customer Value Proposition

Customers able to capture value from Participating in DR Programs to provide Ancillary Services

Barrier: Under traditional DR program designs, performance incentives must be large enough to attract participants

Barrier: Alternative/augmented value proposals may need to be developed to engender participation

Barrier: Programs must be much less intrusive, especially at mass market level, than other DR programs given frequency and duration of events