What is a Distributed Energy Resource?

- Distributed energy resources (DERs), are any resources connected on the distribution level, customer side or utility side of the customer meter.

- Some technology types of DERs can include:
  - Rooftop solar, energy storage, plug-in electric vehicles, and demand response.

DER providers can aggregate a variety of distribution connected resources to the ISO market.

- DERs in an aggregation can be connected…
  - In front of the end-use customer meter, or
  - Behind the end-use customer meter, with an additional meter on the DER

- These options open a pathway for DERs to aggregate and meet the ISO's .5 MW minimum participation requirement

DERs participate in the ISO market as a demand response or non-generator resource

- Demand response is the direct participation of load reduction as a supply resource in the market
  - Can participate under two models:
    - Proxy Demand Response (PDR)
    - Reliability Demand Response Resource (RDRR)

- Non-Generator Resource (NGR) allows for the participation of energy storage resources
  - e.g. flywheel, lithium ion battery, electric vehicles, pumped hydro, and etc.

Facilitating DERs - Some examples for the local Public Utility Commission

- Broadened consumer protection rules
- Universal regulatory obligations on all LSEs
  - state policies, rate policies (NEM), provider of last resort
- Establish short and long-term adequacy obligations on all LSEs in alignment with reliability needs and state policy goals
- New interconnection rules and procedures, including DER
  - wholesale distribution access tariffs
- Access to customer information with confidentiality
  - enable DER providers to assess investments that make sense