

DER definitions

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MIC Special Session on DER
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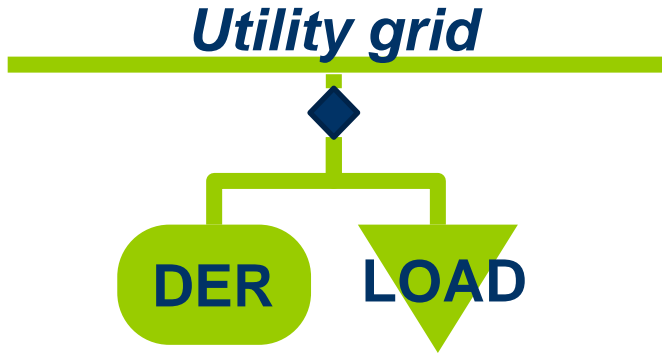


- These straw-proposal definitions are for the purposes of this stakeholder process only.
- Straw proposal—suggested revisions welcome (offline).

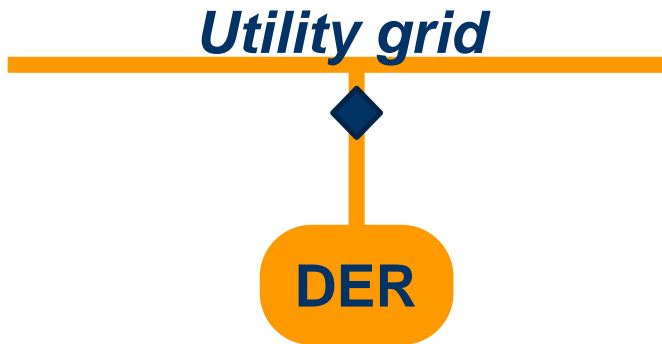
"Wired With Load" vs. "Wired Separately" vs. "Wired Alone"

PHYSICAL DISTINCTION

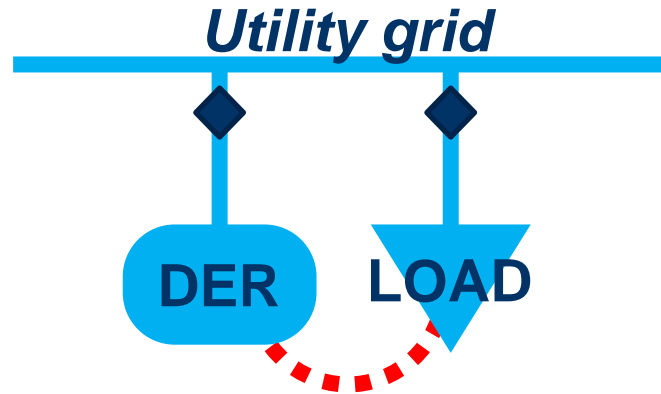
DER WIRED WITH LOAD



DER WIRED ALONE



DER WIRED SEPARATELY



DER WIRED WITH LOAD: load and DER share the same connection to the utility grid.

DER WIRED SEPARATELY: load and DER have separate connections to the utility grid (but are sited together and might be connected via switching).

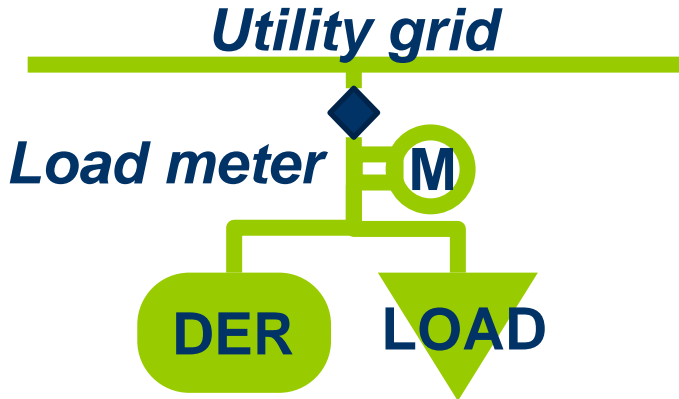
DER WIRED ALONE: DER w/ no relationship with any load (excepting station power).



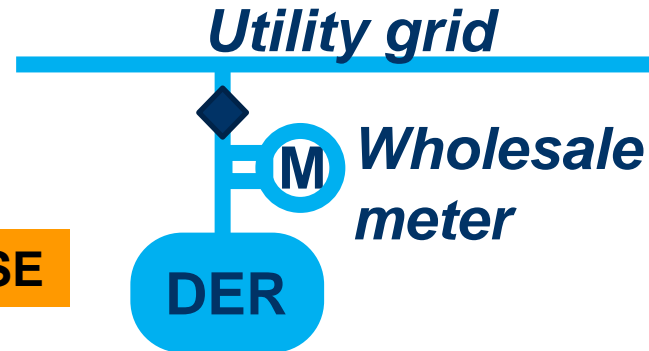
"Behind The Meter" vs. "Front of The Meter" vs. "PJM Demand Response"

ACCOUNTING DISTINCTION

BEHIND THE METER



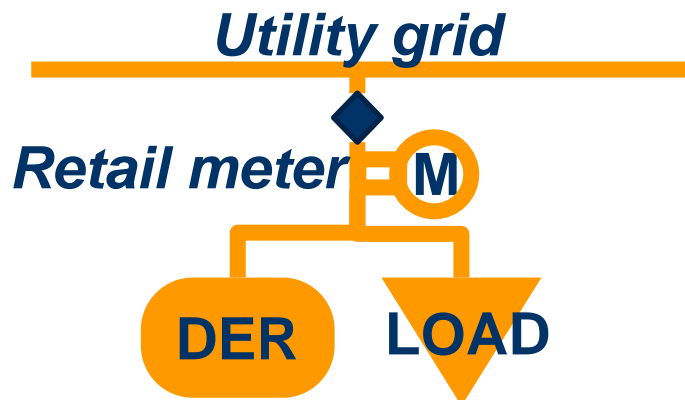
FRONT OF THE METER



BEHIND THE METER: Activity is accounted for by PJM solely as changes in load. No PJM payments. Excludes PJM Demand Response.

FRONT OF THE METER: Activity accounted for by PJM as Generation. Receives PJM payments. Excludes PJM Demand Response.

PJM DEMAND RESPONSE



PJM DEMAND RESPONSE: Load reductions that are also paid by PJM. Activity is accounted as both changes in load and Demand Response.

- Wholesale = sells in PJM. Includes Generation and Demand Response.
 - (PJM) Generation: sells injections in PJM markets.
 - PJM Demand Response: does not inject, offsets load, and sells in PJM via PJM Demand Response rules.
- Non-wholesale = not wholesale.

PHYSICAL DISTINCTION

“Injections” vs. “Withdrawal reduction”

Physical distinction relative to POI

- **Withdrawal reduction:** Energy production from a DER that reduces energy drawn out of the grid at a customer point of interconnection.
- **Injection:** Energy production from a DER that flows onto a utility past a point of interconnection.

Classification as “injection” and “withdrawal reduction” depends on the POI—in some cases, one can identify one POI between generator<>EDC, and another POI EDC<>TO. In these cases, one should specify the POI by reference when discussing injections vs. withdrawal reductions

ACCOUNTING DISTINCTION

"Generation" vs. Load offset"

Accounting distinction relative to metering and data processing configurations

- **Load offset:** Energy from a DER that reduces billings to load. Includes PJM Demand Response.
- **Generation:** Energy from a DER that results in a PJM payment to a seller.
 - Energy accounted for as Generation does not reduce any load billings, wholesale or retail.

Retail load = end use load. "Retail load offset" reduces billings to retail load (and, by extension, to wholesale load as well). Wholesale load = load for resale, i.e., LSE load. "Wholesale load offset" only reduces billings to wholesale load (not to end-use load). E.g., muni generators, PURPA units on bilateral avoided cost contracts.

PHYSICAL

- *Discharging*: batteries can discharge for either a *withdrawal reduction* or an *injection*.
- *Charging (normal)*: batteries can charge for a *withdrawal*.
- *Charging (paired)*: if wired with other generation, discharge can *reduce an injection*.

ACCOUNTING

- *Discharging*: batteries can discharge to produce either a *load offset* or *generation*.
- *Charging (normal)*: batteries can charge to produce either a *load increase* or (if applicable) a *negative generation credit*.
- *Charging (paired)*: if accounted for with other generation, discharge can reduce *generation*.