Capacity and Limited Export

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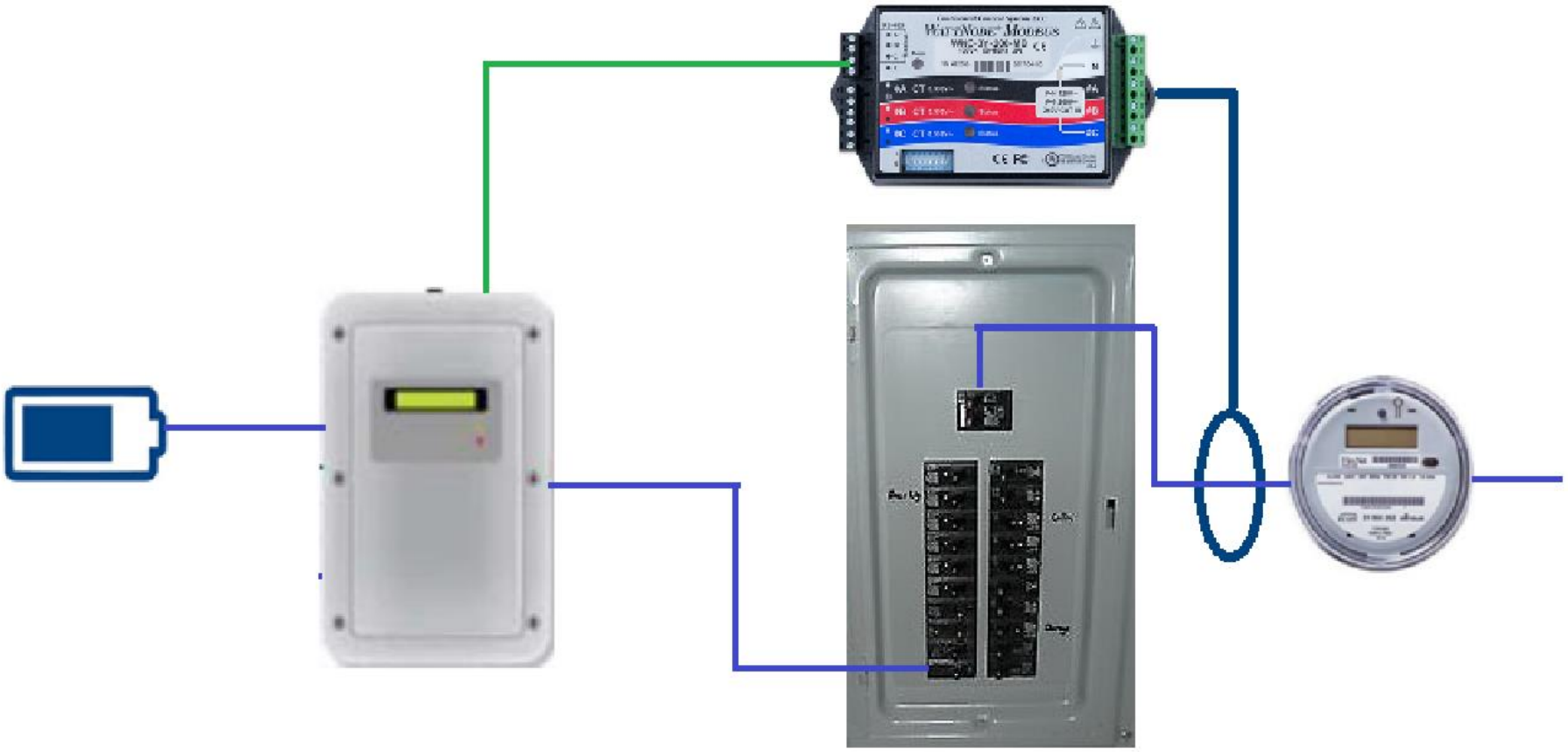
Export-limiting or non-export



Maximum Export Use Cases

Static (based on interconnection agreement)

- Agreed DER rating
  - Actual use (e.g. storage operating mode identified in documentation)
  - Study-based capacity restriction
  - Hosting Capacity restriction
- Storage NEM integrity ("green" vs "brown" electrons)
- Non-export expedited interconnection

Dynamic (based on controls or schedules)

- Load-following hosting capacity restriction
- Other operational curtailment (e.g. temporary thermal restrictions)
- Volt-watt?

IEEE 1547 references

- *4.2.b **RPA***

"Annual average load demand of greater than 10% of the aggregate DER nameplate rating, and where the Local EPS is not capable of, or is prevented from, exporting more than 500 kVA for longer than 30 s."

- 4.6.2 **Limit Active Power:**

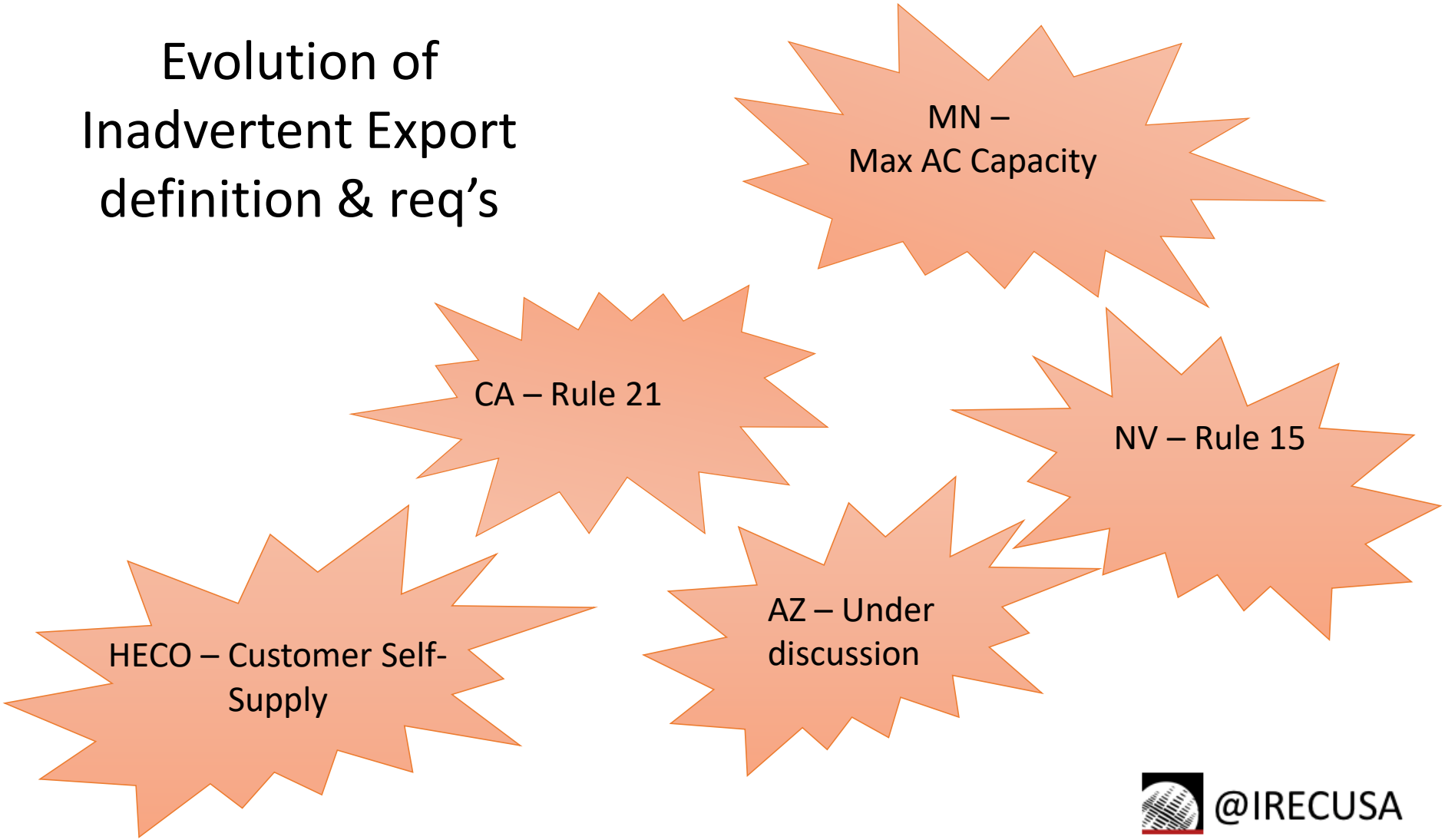
***"**In cases where the DER is supplying loads in the Local EPS, the active power limit set point may be implemented as a maximum active power export to the Area EPS."*

- 5.4.2 fn 65 **volt-watt**:

"As permitted by 4.6.2, for cases where the DER is supplying loads in the Local EPS, the DER active power may be implemented as a maximum active power export limit set point. The DER shall not be required to reduce active power below the level needed to support local loads."

Inadvertent Export Adoption

Evolution of Inadvertent Export definition & req's



Existing Inadvertent Export Rules

- UL1741 non-islanding inverters
- Size limit (necessary?)
- Max inadvertent energy / period (needed with certification?)
- 30s time limit
- Failsafe

Limited Export Technical Req's

Insert the following:

Define how DER rating is determined – "Maximum Export" options

- A+B = A+B // A+B = A // A+B = <A+B

Inadvertent Export" requirements for any large DER

"Inadvertent Export" requirements for inverter-based controls (30s max, could reduce for larger systems)

Testing requirements for Inadvertent Export equipment acceptance

- Soon to be covered by UL Electronic Current Limiting standard

Inadvertent Export

Inadvertent *Export* is not

Inadvertent *energization*