

Distributed Energy Resources

New Technology Innovations to Further DER Integration

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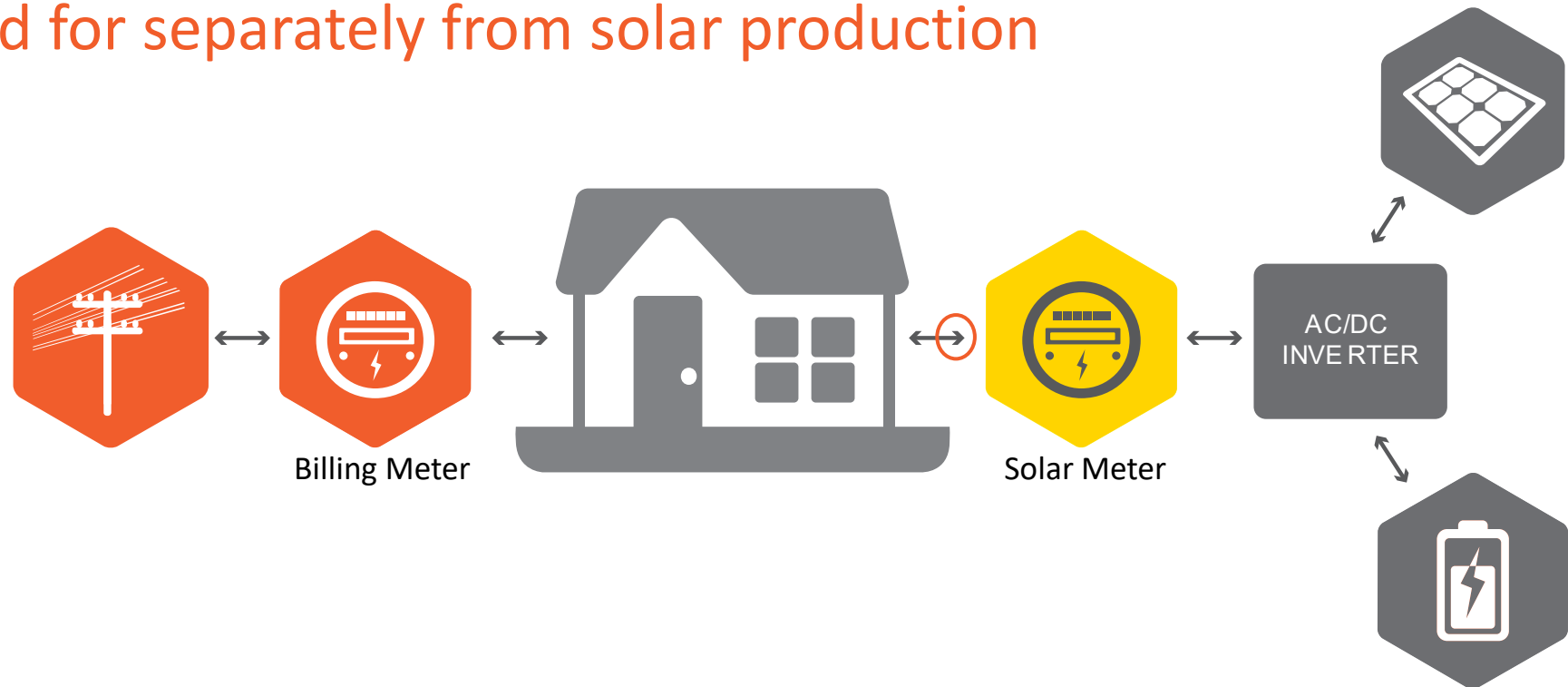


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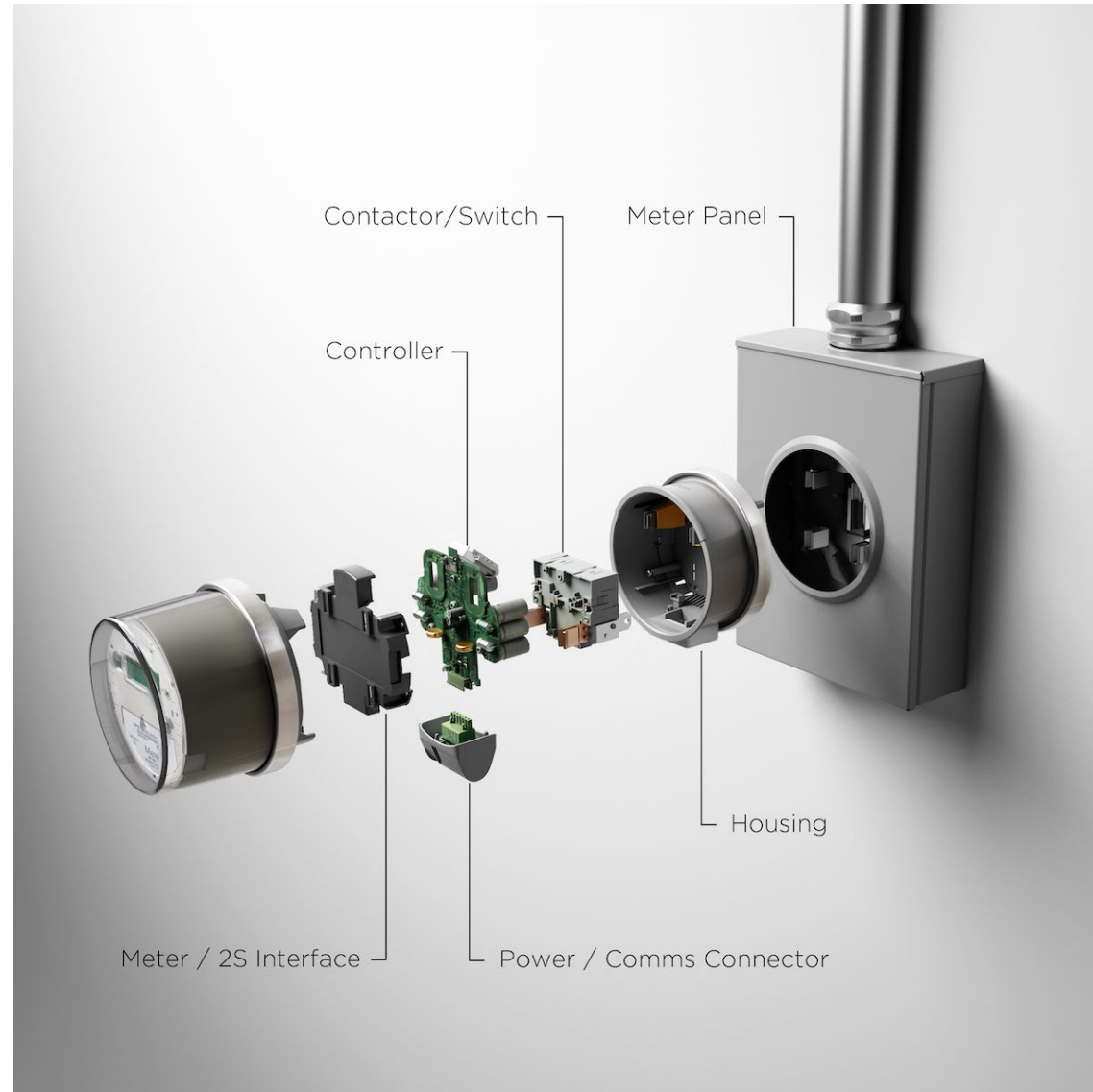
  2023 Austin Energy

Austin Energy Billing System Upgraded to Enable DC Coupling

- Changes enable the billing system to read the solar meter bidirectionally
- Energy from the grid stored in the battery can be accounted for separately from solar production



Powerwall+ and Meter Collar Disconnect Demonstration



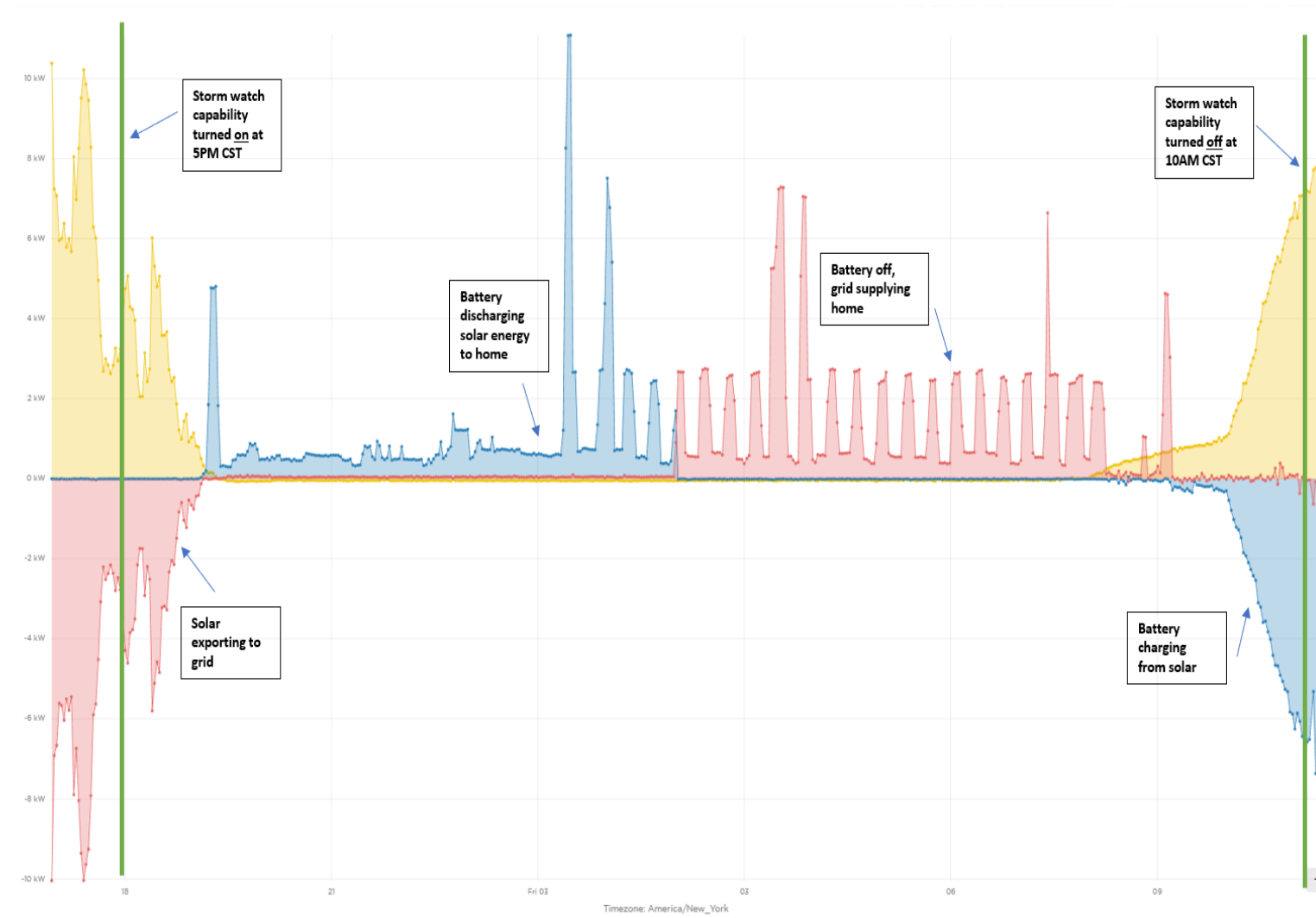
Austin Energy and Tesla developed a working agreement

Enabled product demonstration and evaluation

- Installation of Powerwall+ and Meter Collar Disconnect devices on up to 5 projects
- Multiple locations allowed for different interconnection configurations
- All projects went through standard permitting
- Austin Energy performed electrical inspections prior to energizing projects
- Tesla limited functionality until Austin Energy could test different scenarios
- Tesla and Austin Energy teams met on-site to learn and product test together



Product Testing



- Verified proper isolation from the grid in various scenarios
- Tested harmonics to ensure acceptable thresholds and not back-fed to the grid
- Verified power factor and phase angles are within normal operation range
- Verified proper service disconnect operation of meter
- Verified data coming back to Command Center is accurate

Next Steps

Update Distribution Interconnection Guide
and
Design Criteria Manual



Go Live with solar contracting community

Allows DC Coupling

Allows storage behind
the solar meter

Allows Tesla's Meter
Collar Disconnect
installation



Vehicle to Home (V2H) Installation

Austin's first system was installed in April

- Ford F-150 Lightning can back-up whole home
- Installed directly to the main electrical panel
- Future installation could interconnect existing home solar panel system





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