Battery Storage, Microgrids & Load-shaping Technologies

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Solar For All Grant (SFA)

Purpose

Transform the status quo, putting billions of dollars of solar panels on the homes of low-income families and closing the equity gap in access to solar energy

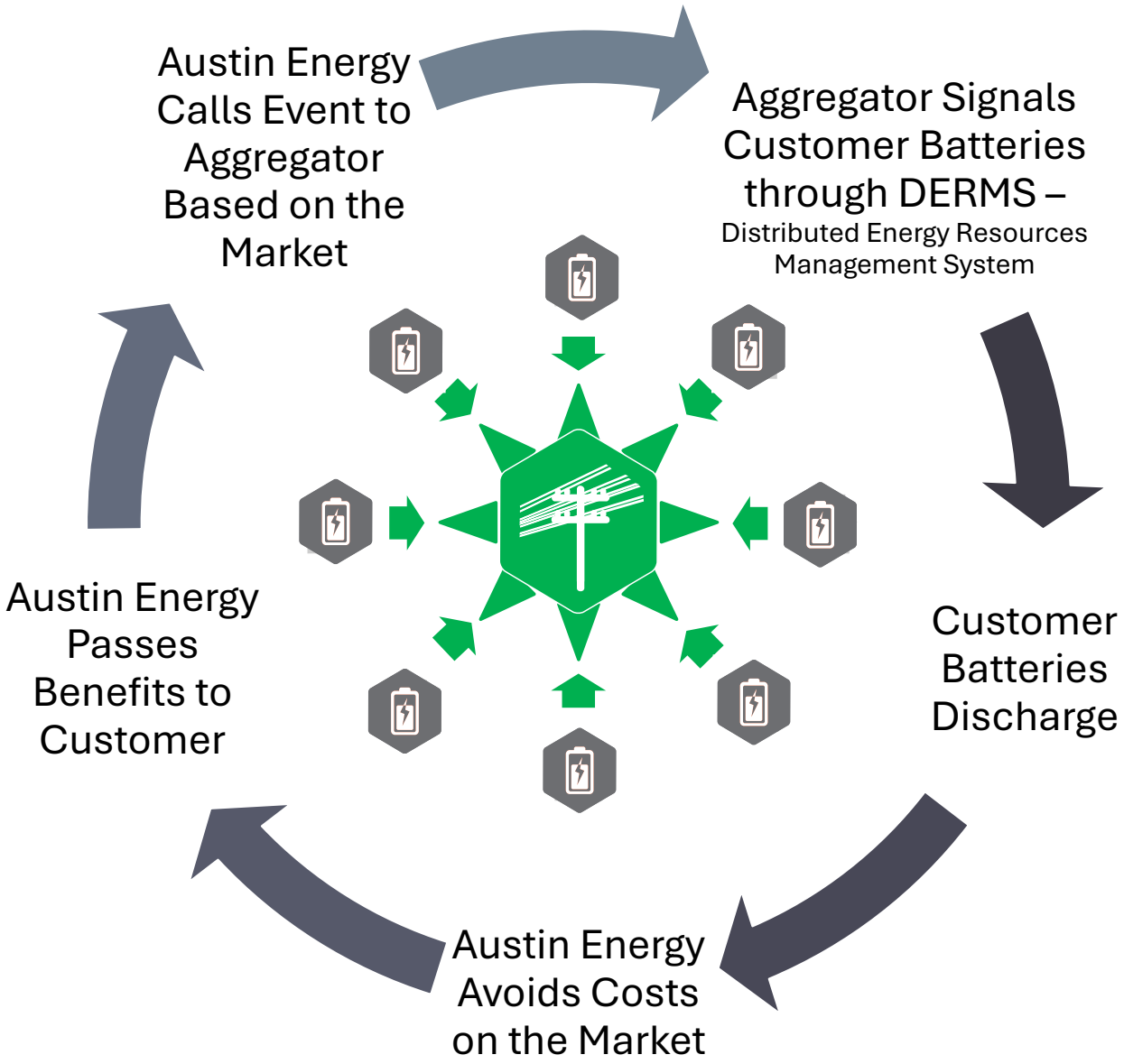
EPA Funded

- $7B and 60 Awards
- Texas Coalition awarded $250M
- Austin Energy targeting $31+M in negotiations

Benefits

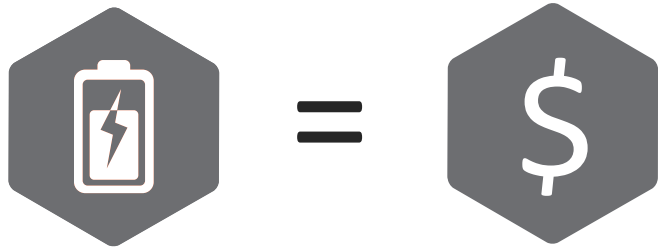
- 3,000+ Homes with Solar & Batteries
- Equitable Access to Solar
- Low-Income Household Savings
- Resilience Benefits
- Workforce Development
- Community Ownership
- Environmental Benefits
- Virtual Power Plants
- Generation inside Load Zone

Aggregated Distributed Energy Resources



Battery Incentives

- Austin Energy is considering the battery value proposition to the customer holistically
- Once an ongoing benefit approach is facilitated, we will evaluate an upfront incentive
- Austin Energy is currently working on approaches using utility-controlled batteries to provide resiliency benefits that flow to low-income customers



Battery Adoption

Progress

- Shines provided lessons on interconnection & operations
- Residential and commercial interconnection guidelines and design criteria fully developed
- Permitting and inspections
- Billing system updates to enable more configurations
- Vehicle to Home (V2H)
- 10MW residential batteries installed

Current Efforts

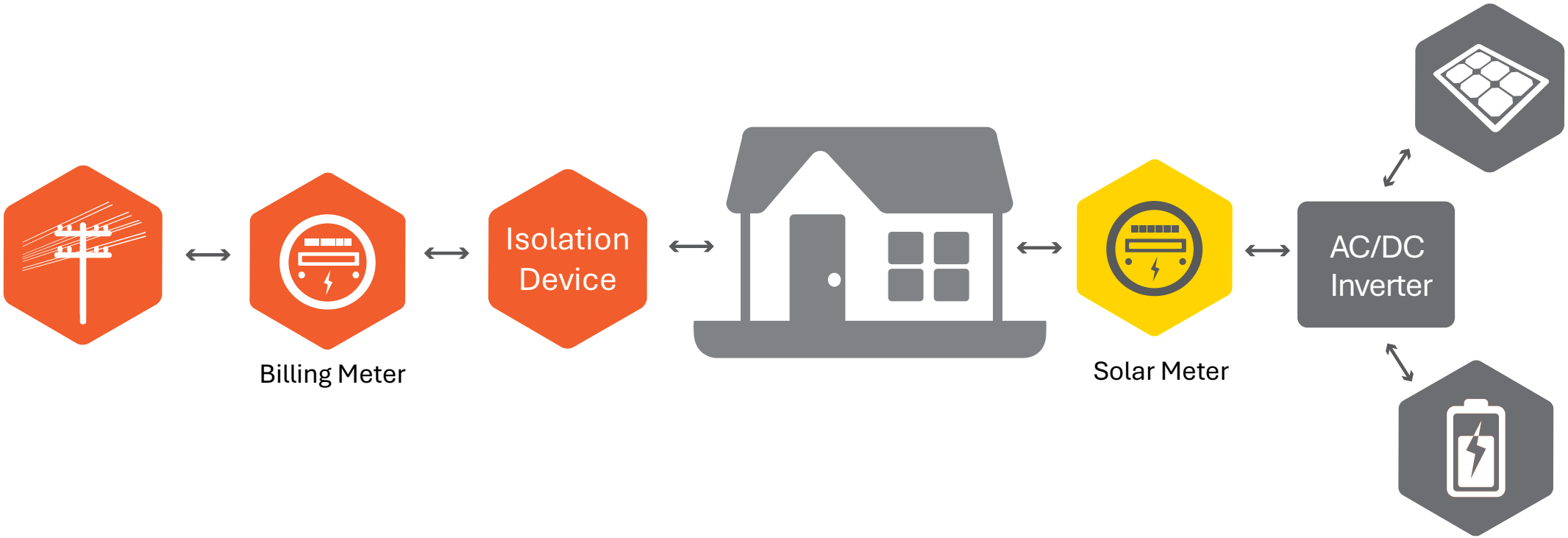
- Resilience Hubs planning with Parks & Recreation Dept.
- Microgrid – Camp Mabry
- Making battery recycling info readily available
- Market benefit analysis and operation strategies
- Procuring an edge Distributed Energy Resource Management System (DERMS) solution
- Solar For All to use edge DERMS for Virtual Power Plant

Planning

- Working with Electric Power Research Institute (EPRI) to build requirements for full scale central DERMS
- DERMS working group
- FY25 CIP budget includes funding for DERMS

Microgrid Enablement

Behind the Meter Storage and Microgrid



Resiliency Hub Pilot

Pilot Sites

- Montopolis Rec Center
- Gus Garcia Rec Center
- Dove Springs Rec Center
- Givens Rec Center

Batteries

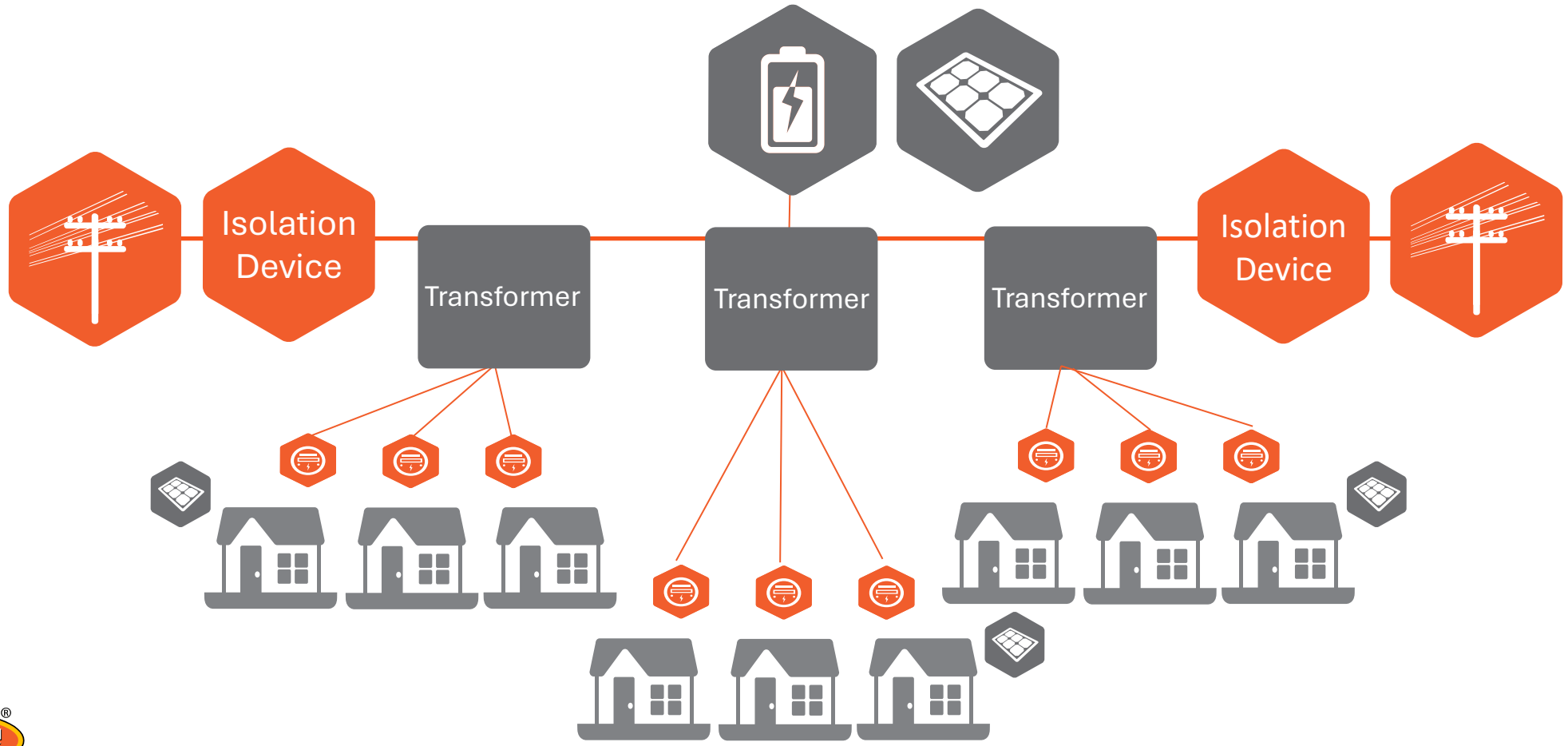
- Capable of handling full load
- 3 days of autonomy
- Virtual Power Plant

Solar

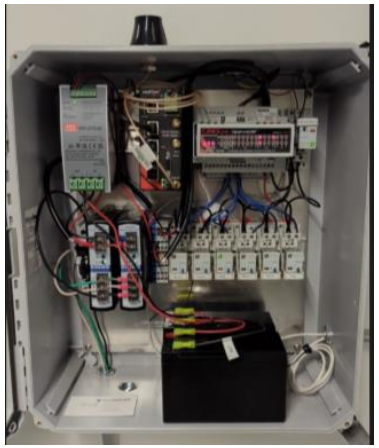
- Maximize site potential
- Support batteries in off-grid mode
- Community Solar Program

Microgrid Enablement

Front of the Meter Storage and Microgrid



Load Shaping & Demand Response Technologies



Commercial Demand Response End Nodes

Multifamily Smart Home:
Armada Power Water Heater Controller & Ecobee Thermostat

Commerical Demand Response

Virtual or physical ‘end-node’ initiates building/site specific strategy to reduce energy from HVAC, lighting and process loads

Power Partner Thermostat

Shift HVAC load for residential and small business customers

Thermal Energy Storage

Chilled water or ice storage systems allow commercial customers to shift cooling load

Demonstration Programs

- **Power Saver Program** — Residential customers volunteer to receive alerts to conserve energy on days of peak demand
- **Multifamily Smart Home Rewards** — Smart thermostats and water heater controllers/leak detectors qualify for new dual tenant and property owner incentives

Customer Driven. Community Focused.SM