



# **DRIVING TRANSFORMATION**

Behavior, Energy & Climate Change (BECC) / November 12-15, 2023 / Sacramento, CA

Co-Convened by

Stanford

Environmental and Energy  
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# Driving Distributed Energy Resources Adoption Through Behavioral-Based Strategies

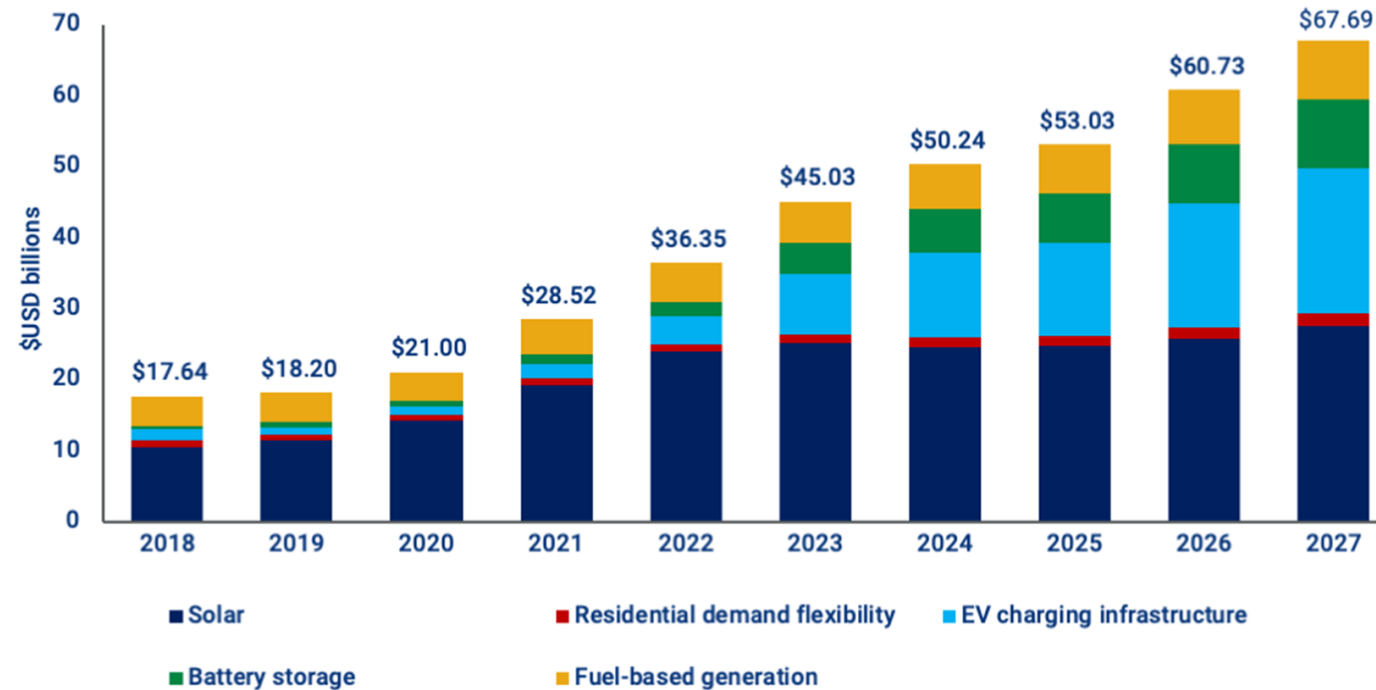
November 14, 2023

William Lese | Moderator /Braemar Energy Ventures

Convened by:

# US Distributed Energy Resources Market Expected to Nearly Double

The US DER market will nearly double from 2022 to 2027, reaching US\$68 billion per year



Source: Wood Mackenzie Grid Edge, US Distributed Solar and Energy Storage Service



# Drivers of DER Growth

- Desire for Resilience as more outages are occurring across the US grid due to increasing inclement weather events and aging infrastructure
- Attractive economics and financing bolstered by the IRA.
- Growing concerns about Climate Change and its impact



Source: Getty Images

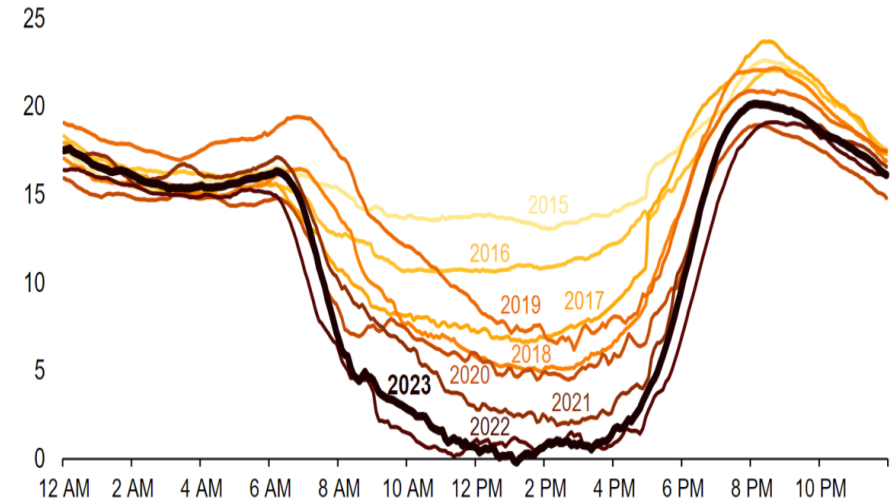


# However, Intermittency of DERs Continues to be a Big Challenge

- Over generation during peak solar generation leads power management issues and curtailment driving up power prices.
- Voltage fluctuations and frequency regulation challenges lead to poor quality power “dirty power” that can be damaging to the grid and the load it’s servicing
- Need to further develop policies and processes that enhance supply side and demand side management of DERs.

California's duck curve is getting deeper

CAISO lowest net load day each spring (March–May, 2015–2023), gigawatts



Source: Energy Information Administration



# Enter – Grid Resilience and Innovation Partnership “GRIP”

- On October 18, 2023, DOE announced up to \$3.5B for 58 projects across 44 states to strengthen electric grid resilience and reliability across the US.
- GRIP will leverage over \$8 billion in federal and private investments that will create jobs and support climate resiliency.
- Key areas of focus include:
  - Lower energy bills and increased clean energy
  - Investments in disadvantaged communities
  - Neighborhood resilience
  - Wildfire prevention and resilience



# Panel Presentations

- **Richard Stuebi** will present findings from recent consumer behavior research on the effects of identity signaling on DER adoption, using the EV purchasing decision as an illustrative example
- **Essie Snell** will focus on how utilities can take a data-driven approach to strategic planning and customer engagement around DERs in a decarbonizing future.
- **Karen Ehrhardt- Martinez's** presentation will explore some of the essential questions related to the equitability of existing DERs programs. It reveals insights from recent utility equity studies and suggests some alternative approaches for ensuring that DERs programs become more inclusive and more successful at reaching a more diverse customer base.

