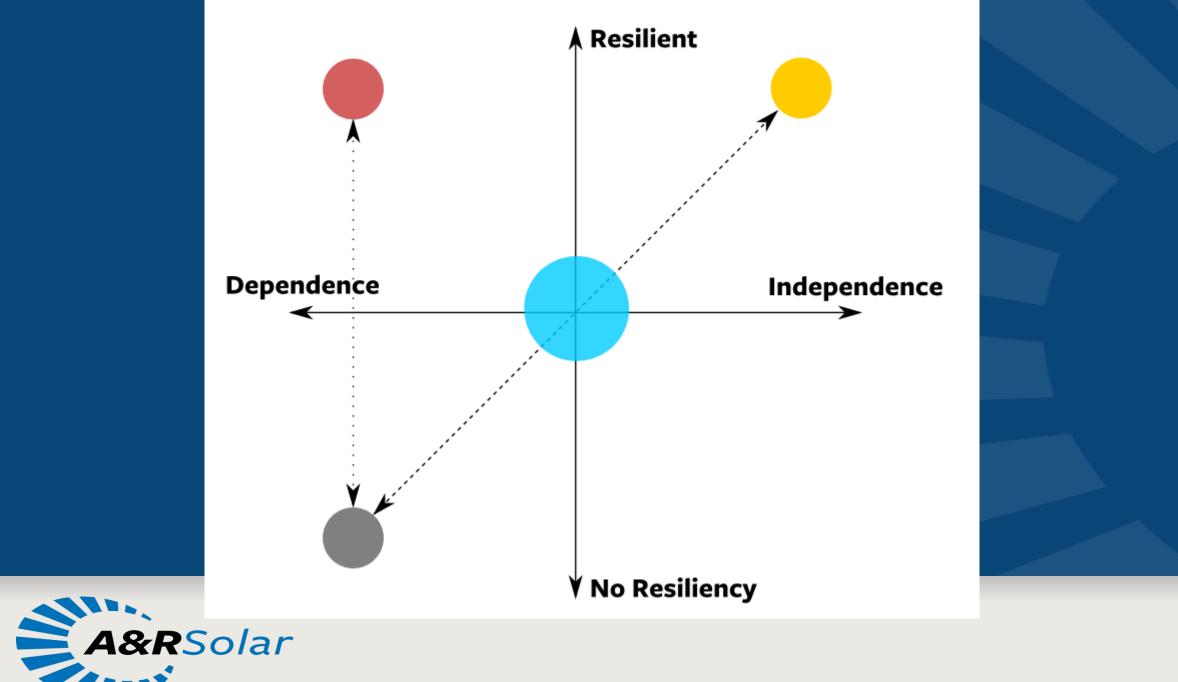
Solar in a Resilient Energy Future

Consumer Motivations – Enabling Technologies, Trends, and Policies

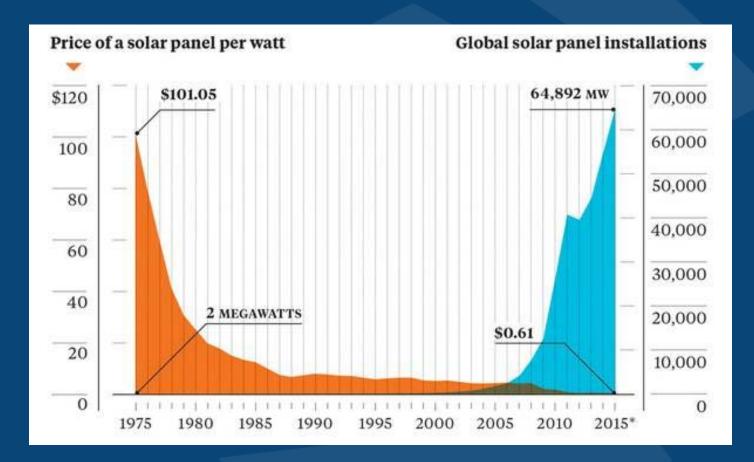




Falling Costs

- Equipment
- Permitting
- Labor Efficiencies

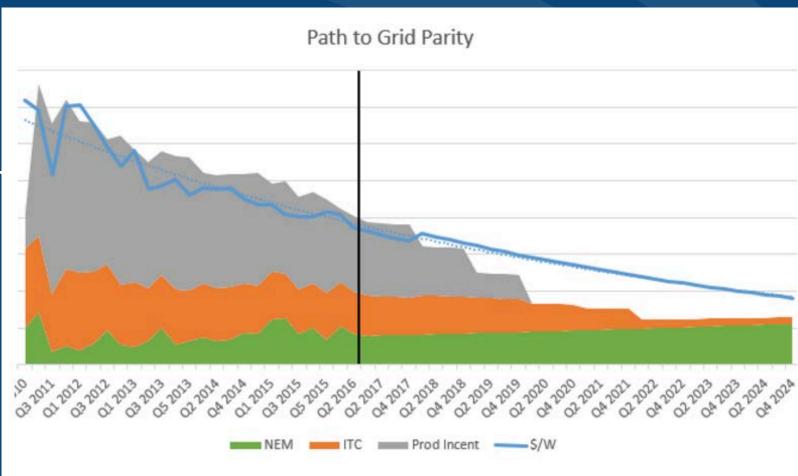






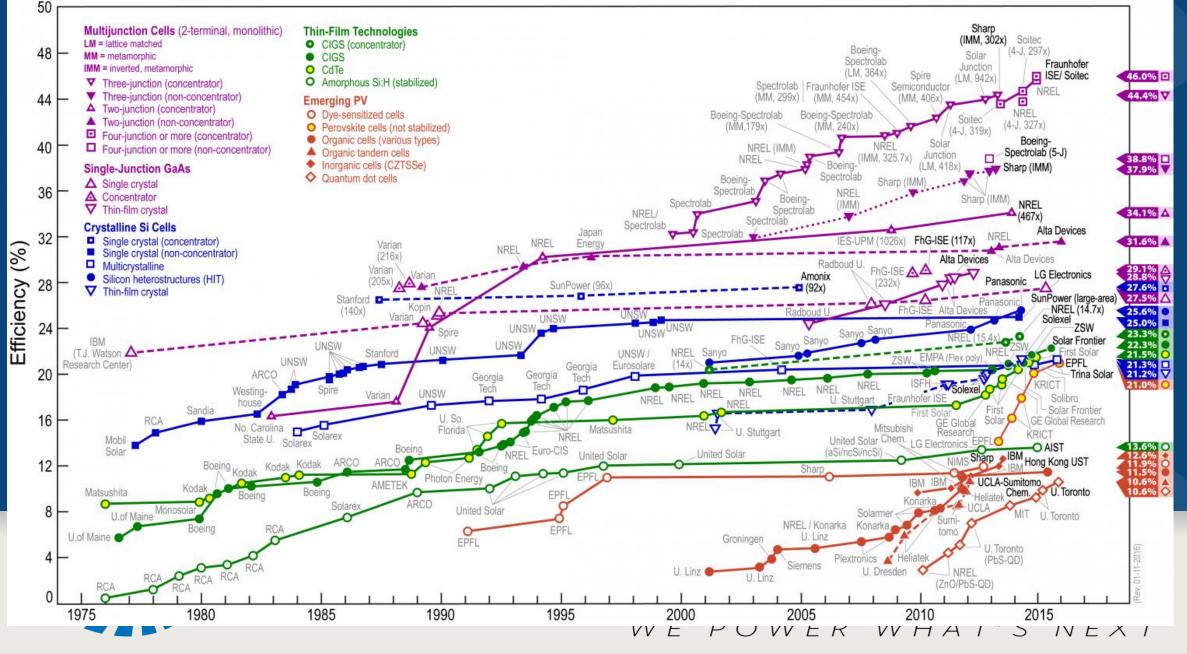
Government Incentives

- Federal
- State
- Net Metering / Value of Solar
- "Level Playing Field"

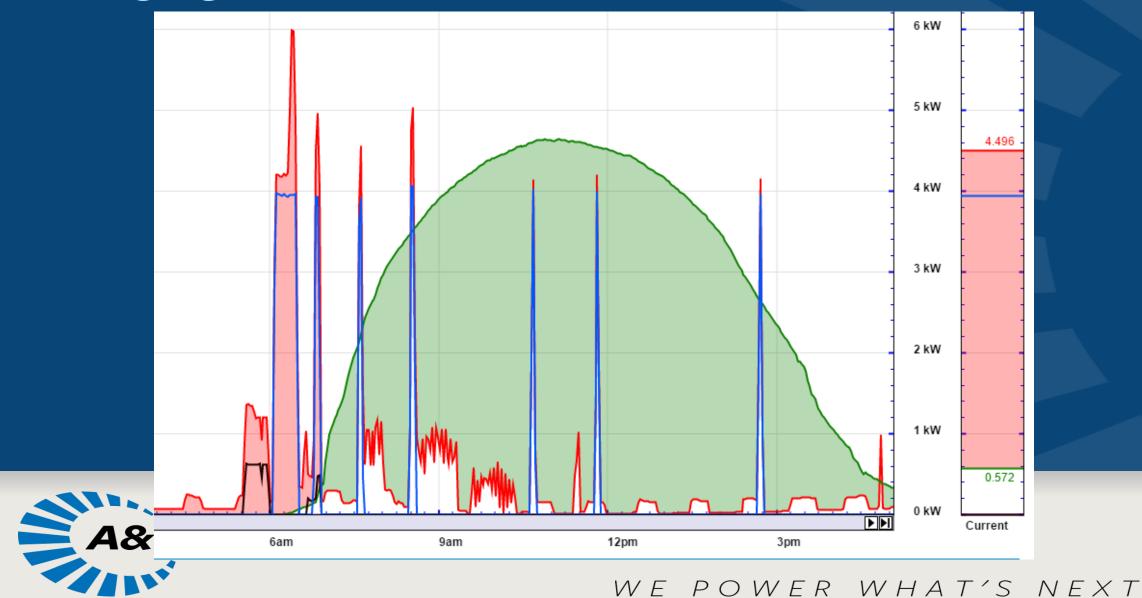




Best Research-Cell Efficiencies

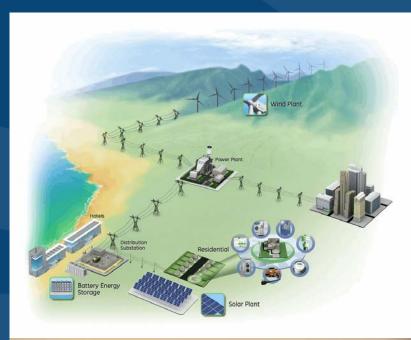


Engaged Customers Demand More



Customer Choice

- Climate & Environment
- Independence
- Resiliency







Enablers

- Technology
 - Low Cost Modules
 - Smart Inverters
 - Storage & Vehicle to Grid (V2G)
- Finance
- Public Policy



Inverters

- Strictly Grid Tied
- Secure Power Supply
- Hybrid Grid-tied with Battery Backup
- Smart Hybrids
 - Self Consumption Demand Response & Load Control
 - Time of Use Management
 - Demand Charge Reduction
 - Backup Power
 - Virtual Grids





Storage & V2G







Investment

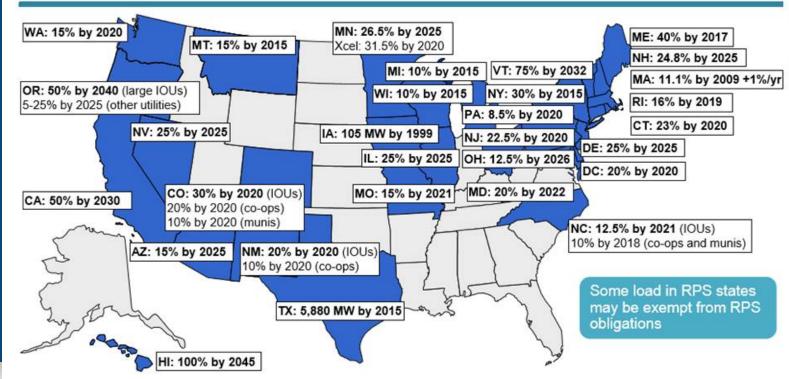
- Tax Equity Investors
- Stable, Predictable Returns
- Innovative Financing
 - PPA / Lease
 - Municipal Bonds (PACE)
 - Community Solar / Crowdfunding





Renewable Portfolio Standard

RPS Policies Exist in 29 States and DC Apply to 55% of Total U.S. Retail Electricity Sales





Source: Berkeley Lab

ERKELEY LAP

Notes: Estimated retail sales subject to RPS obligations accounts for any applicable exemptions. In addition to the RPS policies shown on this map, voluntary renewable energy goals exist in a number of U.S. states, and both mandatory RPS policies and non-binding goals exist among U.S. territories (American Samoa, Guam, Puerto Rico, US Virgin Islands).



Market Correction

- Current Market Failures
 - Polluting for Free
 - Environmental Harm
- Correction Inevitable?
 - Price on Carbon
 - Pay to Pollute







Residential





Solar for Businesses







Community Solar







