ENERGY

Residential Solar at the Crossroads: Why Partnerships Will Define the Next Era

Introduction: An Inflection Point, Not a Doom Loop

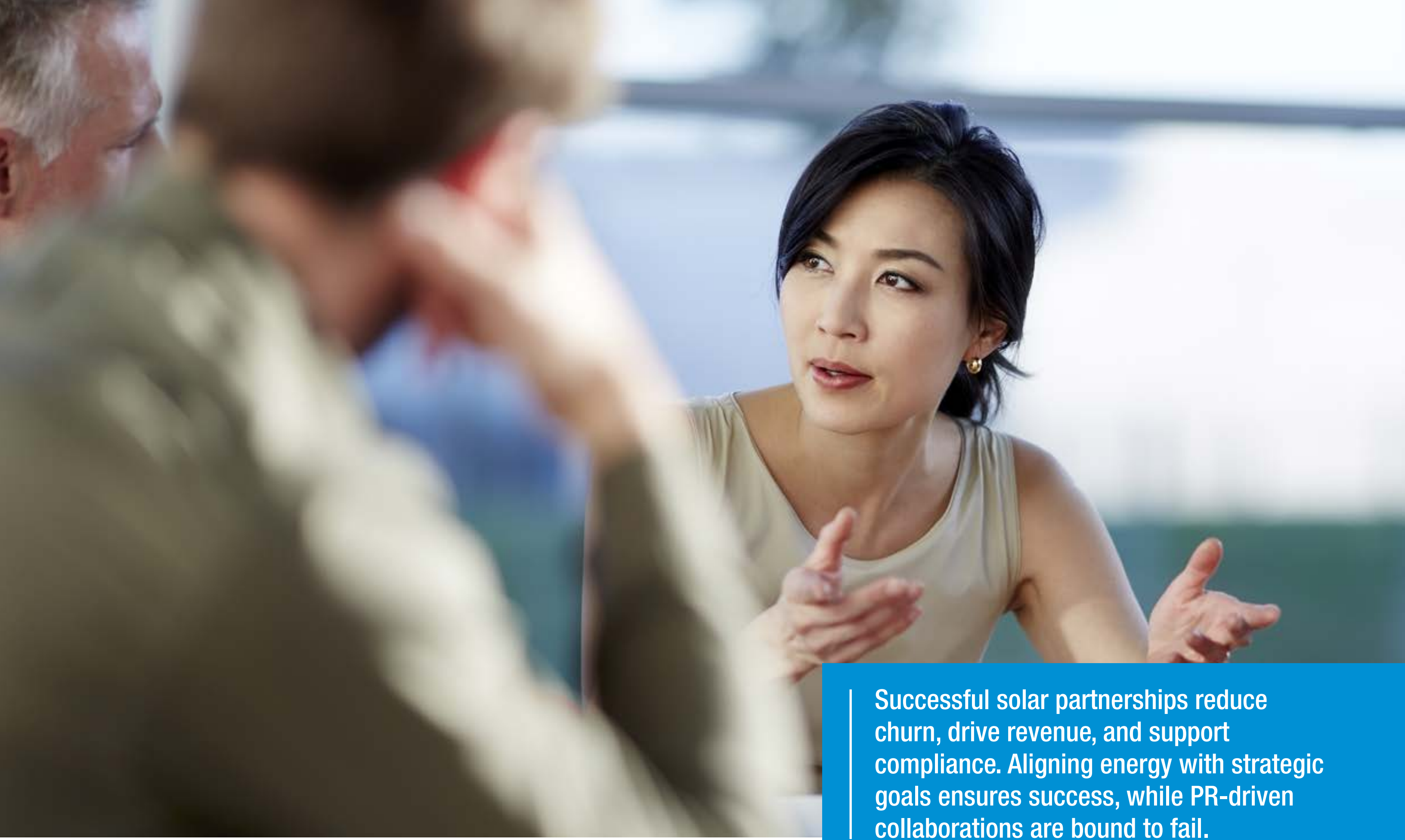
The US residential solar industry has reached its first true inflection point. For more than a decade, rooftop solar followed a story of inevitability: falling panel costs, federal incentives, and supportive state programs. That narrative is now unraveling under converging pressures: expiration of the federal 25D tax credit in 2025, state retrenchment on net metering, rising financing costs, and renewed utility preference for centralized CAPEX investment.[1]

Installations fell 31% in 2024.[2] Major firms including SunPower, Sunnova, and Mosaic have gone bankrupt,[3] while more than 100 smaller firms have failed.[4] Yet consumer demand remains strong—76% of homeowners still see solar as a smart investment, up from 51% the prior year.[5] The challenge is not demand; it's economics.

Hardware is no longer the cost driver. Soft costs—customer acquisition, permitting, labor, and overhead—now make up more than 65% of total installed price,[6] leaving a persistent $2+/W gap versus markets like Australia.[7] Customer acquisition alone ranges from $0.50–$1.00/W.[8] These inefficiencies are fixable, but not by individual firms acting alone. The path forward lies in partnerships that provide access to customers, streamline operations, and accelerate regulatory reform.

The futility of competing through traditional customer acquisition is evident in the SunPower–Sunrun rivalry. In 2022, Sunrun spent $896M on SG&A—nearly 40% of revenue—to maintain market share.[9] Two years later, SunPower declared bankruptcy, and Sunrun's stock remains down 80% from its 2021 peak.[10] The lesson: You cannot outspend your way to profitability when the underlying economics are broken.

1 "The Final Version of the Solar Tax Credit Changes from the One Big Beautiful Bill," Solar Insure, July 16, 2025.
2 "Solar Market Insight Report 2024 Year in Review," Solar Energy Industries Assn. (SEIA), March 11, 2025.
3 Ryan Kennedy, "Residential solar declined 31% in 2024," PV Magazine, March 13, 2025; Jonathan Touriño Jacobo, "Sunnova, Mosaic file Chapter 11 bankruptcy," PV Tech, June 10, 2025.
4 "The Complete List of Solar Bankruptcies and Business Closures," Solar Insure, last updated August 28, 2025.
5 "The Final Version of the Solar Tax Credit Changes from the One Big Beautiful Bill," Solar Insure.
6 "What are solar soft costs?" Aurora Solar, n.d., last updated November 2024.
7 Casey McDevitt and Spencer Fields, "Why are solar panels so expensive in the U.S.? Soft costs add up, but prices have fallen $15K," EnergySage, updated October 1, 2025.
8 Caitlin Connelly, "US residential solar: why is customer acquisition still so costly?" Wood Mackenzie, November 2, 2021.
9 "Historical Data," Sunrun Investor Relations, n.d., accessed October 10, 2025.
10 Ibid.



Successful solar partnerships reduce churn, drive revenue, and support compliance. Aligning energy with strategic goals ensures success, while PR-driven collaborations are bound to fail.

The Missing Lever: Partnerships

Most industry commentary focuses on consolidation, financing, or technology. Yet the overlooked lever is partnerships. Adjacent sectors already possess what solar needs: large customer bases, operational scale, and policymaker relationships. The right partnerships can lower CAC, simplify installation, and enable permitting and interconnection reforms that no installer could achieve independently.

The difference between successful and failed partnerships comes down to mutual value. Energy cannot remain a side project for the partner—it must advance both sides' strategic goals. When partnerships reduce churn, create new revenue, or support compliance, they endure. When they exist mainly for PR, they collapse.

Past efforts often amounted to co-marketing—shared branding without structural integration.

The next era requires deeper collaboration characterized by:

Operational integration
Shared systems, workflows, or logistics

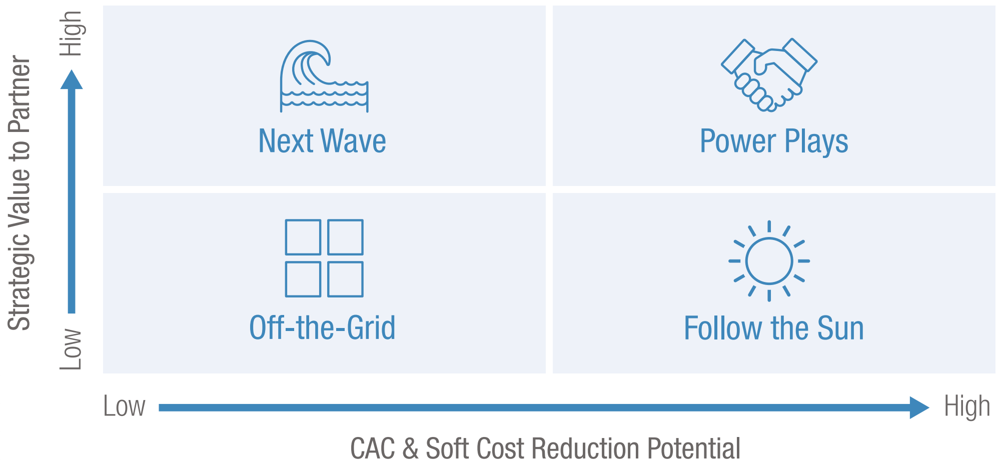
Mutual business benefit
Gains to both partners' core metrics, not just marketing

Shared risk and investment
Co-invested infrastructure or warranties

Joint policy engagement
Unified voice for permitting and interconnection reform

Co-marketing preserves soft costs; partnerships rewire the cost structure.

A Framework for Partnership Strategy



Partnerships can be mapped on two axes: **Soft-Cost Reduction Potential** and **Strategic Value to Partner**. The combination distinguishes passing opportunities from transformative ones.

Quadrant	Description	Example Partners
Power Plays (High-High)	Strong cost reduction and strategic fit; highest priority.	Homebuilders, mortgage originators, HVAC networks, ISPs
Next Wave (High Partner Value)	Strategic motivation but slower cost impact.	EV manufacturers, large employers
Follow the Sun (High Cost Impact)	Soft-cost reduction potential but weaker strategic motivation.	Municipal utilities, roofing firms
Off-the-Grid (Low-Low)	Minimal alignment; monitor only.	Smart home, generator, propane brands

The framework reveals where to focus: Power Plays combine immediate soft-cost reduction with strong partner motivation, making them the highest-priority opportunities. The sections below concentrate on these top-right partnerships.

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Leading Partnership Candidates

Homebuilders: *Making Solar and Storage Standard*

New homes offer the easiest path to making energy features default. Builders gain faster sales and premium pricing; solar firms gain standardized designs and permitting leverage through builders' local relationships.

HVAC Networks: *Bundling Energy Into Electrification*

HVAC contractors already manage in-home upgrades. Bundling solar or storage with heat pump installations captures shared site visits and higher ROI from electrification. Contractors gain new service revenue and regulatory familiarity. Challenge: Training requirements and electrical panel upgrade complexity.

Mortgage Originators and Servicers: *Energy at the Point of Transaction*

Home purchases and refinances are high-intent decision points. Integrating energy options here lowers dealer fees and simplifies financing. Lenders benefit through green mortgage products and improved asset valuation.

Cable, Telecom, and Internet Providers: *Energy as a Retention Tool*

Telecoms and ISPs have millions of customer relationships and property–owner contracts. Energy resilience packages (solar + storage) can differentiate offerings and reduce churn. Standardized MDU installs provide scale but require operational integration and executive buy-in—companies must recognize that market fundamentals have shifted substantially since earlier partnership attempts.

Designing for Value Capture

Identifying partners is easy. Structuring partnerships that capture value for both sides is harder. The right commercial design determines whether the theoretical benefits are realized.

Successful arrangements align incentives and risk through proven archetypes:

Channel Integration
Bundled or promoted through existing sales channels, often with revenue sharing

Brand Leverage
Delivering energy solutions under a trusted partner's name

Customer Network Access
Leads or introductions compensated per conversion

Platform Integration
Customer-facing portals tied to backend infrastructure

Operational Partnership
Joint installation, service, or logistic

Strategic Co-Investment
Pooled capital to scale deployment

Data Exchange
Shared insights to improve targeting and design

Risk/Revenue-Sharing
Performance-based or subscription pricing models

Each model must answer: Who owns the customer? How are service obligations and revenues divided? How is risk allocated if systems underperform? These design questions define whether partnerships achieve structural cost reform or replicate failed marketing experiments.

How Alvarez & Marsal Can Help

Building these partnerships requires strategy, financial structuring, regulatory insight, and operational design. Alvarez & Marsal works across the ecosystem:

For Investors
Evaluate which solar firms will succeed through partnerships and identify consolidation opportunities where partnership capabilities create value.

For Potential Partners
Assess whether residential energy aligns with core goals and design business models that reduce execution risk.

For Solar Executives
Prioritize high-value partnership types and structure arrangements that lower CAC, share risk, and scale sustainably.

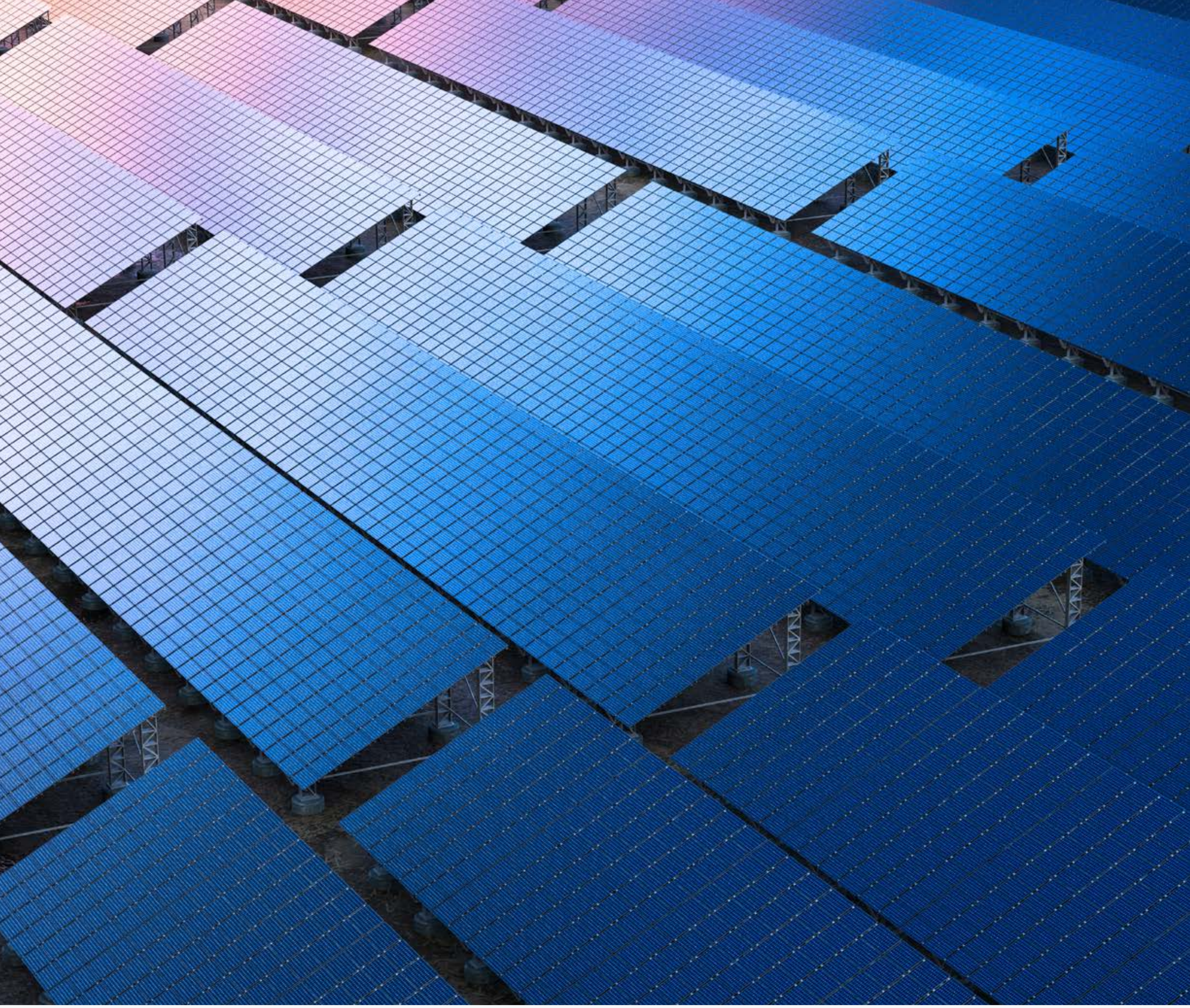
A&M brings capabilities in:

- Partnership strategy and prioritization
- Business model and financial design
- Regulatory and policy analysis
- Operational integration planning

Closing: Partnerships as Means to Transformation

Residential solar is at a crossroads. Consolidation will continue, but structural cost reform will determine the winners. The most successful companies will use partnerships to evolve into integrated residential energy providers—embedded in household transactions and supported by industries with scale, trust, and policy reach.

Future leaders may not call themselves solar companies at all. They will offer bundled solutions—solar, storage, electrification—through partnerships that make energy both accessible and affordable. The strategic question is simple: Which partnerships deliver durable customer access and lasting value for both sides?



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