



Solar PV Development Strategies in Europe, 2008–2020

June 2008

Study Highlights:

Solar PV Capacity Forecasts through 2020

- Solar PV Capacity and MW Added Forecasts 2008–2020 by Country
- Solar PV Market Forecasts Segmented by Size of Installation
- Ground-based vs. Rooftop-based
- Solar PV Penetration

Rankings of top 30 European Solar PV Markets

- Solar Resources
- Regulatory Mechanisms
- Site Approval
- Utility/Grid Issues
- Competition

Leading Player Strategy Profiles

- System Providers
- Developers
- Utilities
- Independent Power Producers
- Specialized PV Power Producers
- Financers and Investors

Country Market Analysis

- Greenfield Development Opportunities
- Scaling Market Opportunities
- Consolidating Opportunities
- Rooftop vs. Ground based opportunities
- System Payback periods

Competitive Analysis of Value Chain and Development Strategies

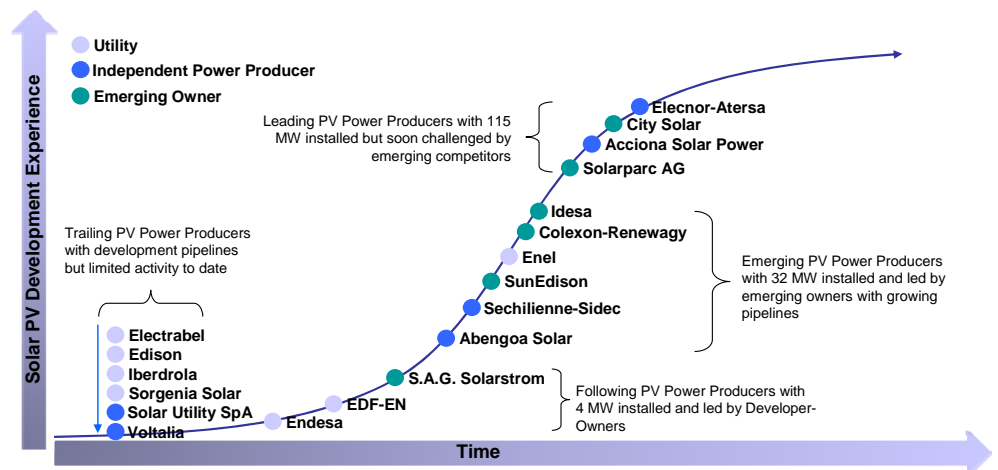
- Framework Agreements
- Technology Selection
- Value Chain Positioning
- Geographic Focus
- Supply Chain Strategies

Led by Germany and more recently Spain -- which together accounted for 1,440 MW of new PV installations in 2007 and with close to 1,800 MW expected in 2008 -- Europe's PV market is moving into a new phase. Large scale (over 1 MW) and ground-based installations are leading the way several new markets that have re-tooled feed-in tariffs and permitting regulations, including Italy, Greece, and the Czech Republic. At the same time, solar PV development in Europe has become the center of activity for global developers, PV suppliers and utilities.

EER's new market study, *Solar PV Development Strategies in Europe 2008-2020*, provides comprehensive analysis of PV market activity in Europe with a focus on downstream development activities. The 300-page study profiles leading project developers, supply chain strategies, geographic positioning, and opportunities across 30 countries. Key trends highlighted in the study include:

- **German EPC providers blanketing Europe:** As their home market matures, German EPC providers have swarmed into Spain and Greece in search of more ground-base system opportunities. In doing so, they seek to leverage their unique PV development experience as well as their ties with financing and investment partners.
- **Supply chain hurdles encourage lateral movement along the development value chain.** With silicon based module supplies squeezing developers, five leading component manufacturers have moved into project development to leverage their supply chain advantages. Some developers have vertically integrated to secure supply, while others have sought competitive advantage through framework supply agreements with leading thin-film suppliers.
- **Utilities stepping up PV involvement:** PV ownership has remained fragmented among investors and developers, but utilities and other "PV Power Producers" are beginning to evolve their strategies. A growing number of European utilities are looking to add solar PV to their renewable portfolios. Including Enel, Electrabel, and EDF EN.

Exhibit: Europe Solar PV Power Producer Adoption Curve



Source: Emerging Energy Research

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Solar PV Development Strategies in Europe, 2008–2020 is widely considered the most in-depth and authoritative market study available on this fast growing market. EER’s market studies are widely-ready and well-received by key stakeholders in the industry including developers, IPPs, utilities, financial companies, investment companies. EER’s new PV market study is comprised of the following sections:

- Section 1: Executive Summary
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