



SEPA

solar electric power association

EXECUTIVE SUMMARY

Helping Utilities Make Smart Solar Decisions

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International Utility Photovoltaic Survey: Utility Procurement Influences & Practices

Overview

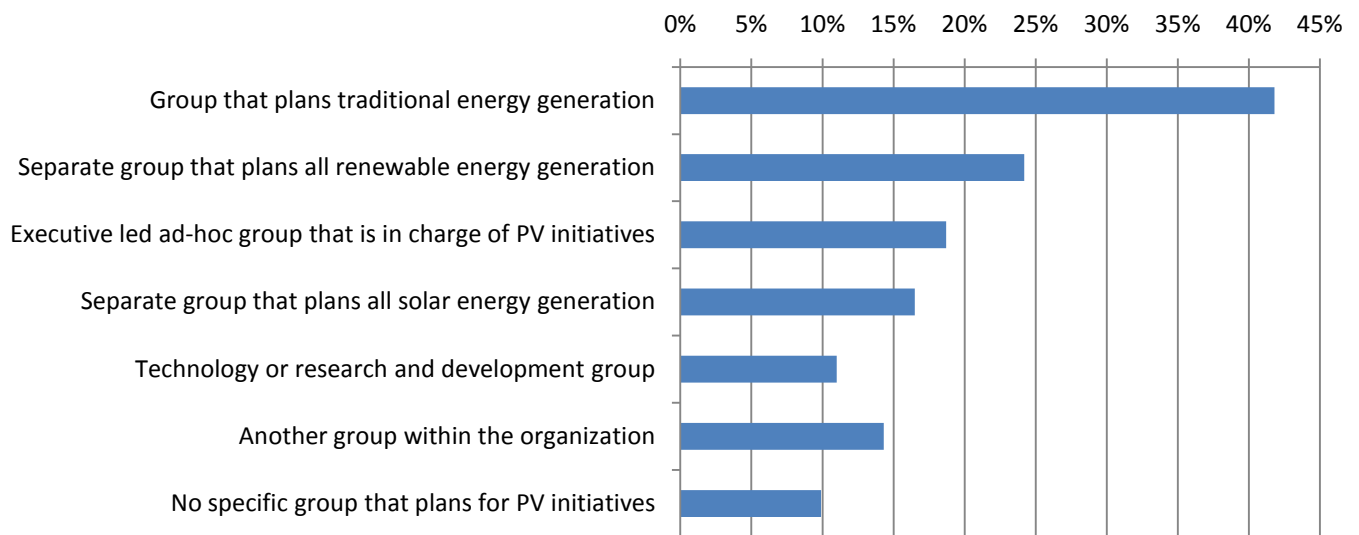
As part of an ongoing collaboration, the Solar Electric Power Association (SEPA) and Gartner Research, Inc. conducted a phone survey of 134 utilities in Europe and the United States to understand their requirements and objectives for implementing photovoltaic (PV) technologies in their energy generation portfolios.

Key Findings

- According to the survey, PV is one of the leading near-term renewable energy technologies being utilized and considered by utilities, behind hydropower, but ahead of on-shore wind generation. Forty-four percent of U.S. utilities currently have solar in their generation portfolios (vs. 75 percent in Germany), and an additional 33 percent will be considering it within the next five years. Within these portfolios, a significant number of U.S. and European utilities indicate they already own PV assets (36 percent of total respondents).
- Internationally, policy at the national level is the main driving force behind utilities adding PV technologies to their generation portfolios. Interestingly, U.S. utilities indicated that these national policies have slightly more influence on their PV initiatives than those of individual states or regulatory commissions. This runs somewhat counter to the current federal policy status, where a national renewable portfolio standard (RPS) has not yet been implemented. Reasons for this perceived influence might include risk and uncertainty on the federal direction, the importance of the federal solar tax credit, differences in utility types, or a federal influence from utilities in states without current state policy requirements.
- The importance of policy will continue in the short-term, even if PV prices continue to decline and make solar more competitive with wholesale and retail electricity prices. Federal and state policy influence varies significantly across a broad spectrum of technology adoption, ranging from incentives to procurement requirements to siting and permitting influence. This makes rapid and broad policy changes less likely to both influence the entire U.S. market and react as quickly as the market changes.
- The solar procurement groups within utilities are varied and diverse, ranging from traditional power supply to special renewable procurement or solar teams (Figure 1). Utilities have multiple influence centers, procurement processes, and a need to balance cost and capital requirements. This makes the sales process for solar companies more state- and utility-specific, and thus more complex and lengthy.
- When choosing renewable energy technologies, reliability and cost-per-kilowatt hour are the two most important criteria for utilities. When choosing between different PV technologies and components, cost, product warranty and the vendor's experience are the most important criteria.
- Utilities consider companies with specific PV solar system experience to have the most expertise in PV solar power plant development and management, as opposed to internal utility teams and traditional power generation developers. This finding aligns with recent efforts by PV solar module vendors to

develop utility-scale project development divisions.

Figure 1. Utility Procurement Models for PV Solar Energy by Organization Type (n=91)



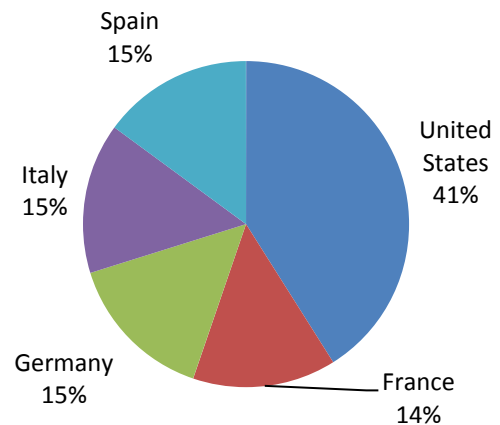
Note: The survey allowed for multiple responses; utilities selected all procurement models that applied. (Source: Gartner and SEPA, February 2010)

Methodology

SEPA and Gartner conducted a telephone-based survey of utility firms in the United States, Germany, Spain, Italy and France, as well as a supplemental online survey in the United States. The survey sought to include the countries that constitute the largest current and near-term demand for solar power. It excluded Japan due to cultural differences in performing survey work.

The survey ran from December 14, 2009, to January 25, 2010, for the phone portion of the survey, and from January 19, 2010, to February 12, 2010, for the online portion.

Figure 2: Survey Respondents by Country (n=134)



Source: Gartner and SEPA (February 2010)

Figure 2 shows the survey respondents by country. The survey had 20 respondents each in Germany, Italy, and Spain, 19 in France and 55 in the United States.¹

¹ The United States had more respondents as the phone survey was supplemented with an online survey.

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