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**IMMINENT GRID PARITY TO CREATE SOLAR BOOM IN CALIFORNIA**

Solar is nearly competitive with traditional energy in select locations today, says Lux Research, though widespread grid parity will take a decade

Boston, MA – July 7, 2009 – Solar energy has had an image as an impractical high-cost luxury. However, falling costs and time-of-use electricity pricing have now begun to make solar competitive. Proximity to “grid parity” varies by location, and is closest for commercial rooftop installations in California. Grid parity isn’t a single-point in time, and parity for utility-scale generation remains a decade or more away. However, near-term viability in select applications will drive the thin edge of the wedge that leads to cost reduction and future universal grid parity, says a new report from Lux Research, entitled the “The Slow Dawn of Grid Parity.”

“The solar industry is coming of age, and the metrics for judging solar technologies are shifting,” said Ted Sullivan, Senior Analyst at Lux Research, and lead author of the report. “Instead of upfront capital cost for adding generation capacity – or cost per watt peak (\$/Wp) – the new standard is the levelized cost of electricity (LCOE).” Presented as cost per kilowatt-hour (\$/kWh), LCOE measures the total lifetime cost of a solar installation. This shift enables a more direct comparison to conventional generation types, and enables more rigorous analysis of solar technology on the basis of life-cycle costs, payback period, and return on investment.

The report also provides executives and investors with data on the internal rate of return (IRR) of new solar installations by geography, application, and technology. “IRR is determined by comparing the LCOE in different countries, applications and technologies against the specific subsidies and available retail rates of electricity,” explained Sullivan. “The higher the IRR, the higher the demand in that country, and the more attractive the investment. In subsidized markets, the internal rate of return can reach well in excess of 10%, actively fueling demand.”

Lux Research’s report derives its intelligence from conversations with twenty utilities, project developers, financiers, and tax experts. Among its conclusions:

- **Select applications nearly enable grid parity today.** Solar will converge with grid electricity rates in some situations, such as commercial roof decks in California at costs approaching \$0.45/kWh. But grid parity comparable with utility generation costs around \$0.08/kWh remains a decade away for solar in most markets.
- **Subsidies are still the primary demand driver for new installations.** Even where solar is far from grid parity, ongoing subsidies allow investors, businesses, and homeowners to earn positive IRRs from solar installations. These IRRs will boost demand, fueling further increases in scale and enabling the industry to continue cutting costs and innovating. This should drop future solar LCOEs and further accelerate grid parity.

- **Premature views of grid parity could be counterproductive.** Mounting fiscal pressure on debt-ridden governments could turn the political tide against solar subsidies, particularly if politicians take the simplistic stance that grid parity is a current reality.

“The Slow Dawn of Grid Parity” is part of the Lux Solar Intelligence service. Clients subscribing to this service receive continuous research on solar industry market and technology trends, ongoing technology scouting reports and proprietary data points in the weekly Lux Research Solar Journal, and on-demand inquiry with Lux Research analysts.

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