



Frequently Asked Questions

Q1. SunEdison strongly emphasizes its delivery of renewable electricity *services* as opposed to solar equipment to its customer base. Why is this an important distinction to draw in the renewable energy marketplace?

A1.

- Solar *equipment* is rapidly commoditizing
- Long term, the revenue upside will be derived from services supporting hundreds of thousands/millions of solar/PV-based power plants globally
- Monitoring/reporting/diagnosing/controlling disparate facilities/systems from a centralized, single point of contact is key to intelligently managing hundreds/thousands of interconnections
- SunEdison is uniquely positioned to deliver on this service model

Q2. A cornerstone of SunEdison’s value proposition centers on removing the complexity associated with solar energy – “*simplifying solar*”. Specifically, what complexity is SunEdison eliminating/reducing, and why will this accelerate more widespread adoption of renewable energy among its target customer base?

A2.

- SunEd helps customers avoid large upfront capital expenses associated with owning/maintaining a power plant. For example, a 1 megawatt facility can cost upwards of \$8 million. If you’re a highly distributed organization – such as Kohl’s with 63 facilities – power plant capital costs could soar to half a billion dollars.
- Once a power plant is installed and established, customers face the daunting question of “who services them?” SunEd addresses this with fully certified technicians who are all SunEd employees – not third party

contractors – to maximize system uptime and the uninterrupted delivery of renewable electricity

- SunEd provides a single point of contact for all renewable electricity services. In the case of Kohl's (which is highly representative of the retail market), they would have to interface with different utilities within the state of California, each of which has different regulatory and incentive programs. Without SunEd, the management overhead associated with having to deal with so many different system operators is prohibitive...not to mention the dearth of expertise available to intelligently manage these relationships. SunEd offloads this significant management overhead with its comprehensive, turnkey services.

Q3. Given the highly competitive market for delivering renewable energy, how is SunEdison differentiating itself?

A3.

- SunEd maintains a critical mass of qualified field technicians that support service level agreements specifying the guaranteed delivery of renewable electrical services to its customers.
- With the addition of the EnFlex command and control applications, SunEd enables its customers to aggregate their distributed power plants into smart power grids with highly predictable power delivery forecasts.
- This provides customers with a major incentive to participate in SunEd's PV network, offering significant negotiating leverage with utilities and regulators to secure the lowest per kilowatt price points.
- In addition, the EnFlex command and control applications enable customers to monitor individual facility load information, overall energy efficiency across all locations and remotely control the power infrastructure of the entire distributed organization to proactively manage their sustainable energy management objectives.

Q4. Will 2008 mark a time of a major shakeout in the solar industry? If so, why will SunEdison be among the remaining, viable service providers of renewable energy for the long haul?

A4.

- The shakeout has already started. Solar Power Partners and Energy Innovations are just two recent examples of companies in distress.
- The industry is bifurcating into two distinct camps: solar *product* developers and renewable energy service providers who leverage PV installations to support the guaranteed/uninterrupted delivery of renewable electricity services.

- A key reason SunEd will not only survive a shakeout, but thrive as a leading service provider has to do with its ability to scale operations to meet demand.
- SunEd not only has a nationwide field service organization that provides the requisite critical mass, but also has the command and control software applications that can scale to support the hundreds of thousands of interconnections between disparate utilities, facilities, and systems to deliver sustainable energy management services

Q5. Who is SunEdison's target customer base today? How will this customer base evolve over the next 5 – 10 years? How big is the total addressable market for SunEdison services (domestically and internationally)?

A5.

- SunEd is targeting F500 customers who by definition maintain multiple, distributed facilities with relatively high energy loads. This includes retail, government, healthcare enterprises as well as large utilities.
- Customers are highly incented to reduce their power consumption costs because they represent such a significant portion of their total operating budgets.
- At the same time, there are state mandates calling for utilities to deliver a growing percentage of their electricity loads based on renewable energy; for example, in California, 20% of the electricity must be generated via renewable energy sources by 2020.
- Consequently, the mandated adoption of renewable energy will drive the need for sustainable energy management services dramatically.
- 3000 megawatts of solar generated power consumption is forecast by 2017 in California alone; with an average installed cost of roughly \$4 per watt, the total addressable market in California is pushing \$12 billion, \$10 billion of which is tied to commercial facilities vs residential

Q6. Why is SunEdison uniquely qualified to provide renewable energy services on a global scale?

A6.

- SunEd is the first renewable energy service provider to deliver a completely turnkey model in the PV industry.
- This provides SunEd with first mover advantage.
- The company is also building out its field service technician operations – that currently operate on a nationwide basis in the U.S. – as a model that will be replicated in other geographies through a combination of direct field service teams and strategically selected partners that meet SunEd's stringent criteria.

- From a pure capabilities standpoint, SunEd is unique in its ability to provide turnkey energy management services that have access to all load elements to help customers identify the cheapest sources of energy from the power grid.
- SunEd energy management services also monitor/report/diagnose/control the most efficient consumption of power used by distributed facilities and systems
- As a result, SunEd can demonstrate quantifiable energy cost savings to its customer base across multiple dimensions.
- Longer term, SunEd will deliver SCADA-esque capabilities with its ability to remotely control virtually any point-of-load appliances and an increasingly wide range of inverters.

Q7. How does SunEdison substantiate its claim as the market leader of solar- energy services?

A7.

- Quite simply, SunEd is the largest solar energy service provider in terms of the number of facilities and megawatts it manages.
- Currently, the company is managing 27 megawatts, has accumulated 40 megawatts of installation experience, and has over 70 power plants under management.

Q8. Given the long-term nature of energy contracts (20 years is a common duration) forged between solar service providers and customers, how is SunEdison helping demystify “face value” vs “lifespan” of contract issues?

A8.

- Simply buying the cheapest upfront kilowatt costs does not necessarily mean a customer will be delivered the energy loads they expect.
- This is why SunEd explains its contract services in terms of realized uptime as a means of helping customers achieve their cost saving objectives. There is a big distinction between offering a price per kilowatt and actually delivering on that cost basis.
- SunEd has 97.42% realized uptime across its power plant fleet that enables the company to stand by its cost-per-kilowatt for the duration of the contract lifecycle.

Q9. SunEdison claims the “trapped value in the renewable energy market” is at the point of load. What is the basis of this claim? What is SunEdison’s distributed energy strategy for coherently controlling thousands of interconnections between power generation plants?

A9.

- The ability to continually determine the cost of energy inefficiencies in a facility can dramatically impact a company's bottom-line. Until facilities in the U.S. are regulated for energy efficiency, customers are going to have to determine the efficiency of their energy consumption costs.
- For example, having the ability to monitor/report/diagnose and control lighting schedules, HVAC systems, refrigeration systems, and environmental influences can shave considerable cost factors off of a company's energy budget.
- SunEd is rolling out a robust command and control structure that is standards-based and interfaces directly with utility systems like CAL ISO or PGM for uniformity to optimize an organization's sustainable energy best practices.

Q10. How does SunEdison help provide intelligent forecasting for distributed power generation facilities?

A10.

- With its "EnFlex Control Center", SunEd provides highly robust data acquisition services across operating environments that can capture load levels and monitor weather conditions to provide predictable forecasts for how many kilowatt/megawatt hours need to be delivered over a 24 hour period.

Q11. How is SunEdison delivering a centralized command and control capability for distributed power generation facilities that goes well beyond simple monitoring functions?

A11.

- SunEd's "EnFlex Control Center" combines diagnostic, reporting, alarm handling and centralized remote control capabilities to optimize facility operations and energy management across networks of buildings. The control center links into virtually all facility control, HVAC, lighting, metering and onsite generator technologies including proprietary systems. This enables the control center to provide critical monitoring and control for all SunEd solar electric installations at central utility generating sites and demand side customers.

Q12. SunEdison takes a turnkey approach to delivering solar energy services for commercial businesses, government institutions and utility providers. How does SunEdison's methodology compare/contrast with competing service providers and solar system competitors?

A12.

- SunEd owns and operates its own crews including its Engineering Procurement Group, field service organization and is initiating a certification process for “SunEd University” trained resources.
- Heading into 2008, SunEd will be providing a host of new backend analytic capabilities to help customers determine the most effective solar infrastructure products to use – on a completely vendor neutral basis. For example, SunEd will independently evaluate how many kilowatt hours a PV panel type will produce from a given manufacturer, or determine when inverters might fail.
- SunEd will also provide its own tariff database made available in a public forum to help customers better forecast their energy cost basis and avoid unexpected overages. This provides customers with much greater granularity than ESCOs.

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