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DOE Invests \$7 Million in the PV Solar Incubator Program to Support Emerging Solar Technologies

As part of the Department's commitment to support innovative solar energy technologies, DOE is investing up to \$7 million to fund the latest round of the successful Photovoltaic (PV) Solar Incubator Program. Under the PV Incubator program, DOE helps to develop and commercialize promising emerging solar technologies by shortening the timeline from pre-commercial and prototype stage PV technologies to pilot and full-scale manufacturing operations. The program will help improve the commercial potential of new manufacturing processes and products with the potential to realize dramatic cost reductions.

This is the fourth installment of the PV Incubator program, where companies benefit from close partnerships with DOE national laboratories. In this round, companies were selected in one of two categories:

- Tier 1: To support the development of commercially viable technology prototypes. Projects receive \$1 million over one year
- Tier 2: To develop and scale up pilot stage manufacturing processes. Projects receive up to \$4 million over 18 months.

Funding, which is subject to negotiation, will be issued through the DOE's National Renewable Energy Laboratory.

The Tier I projects are as follows:

- **Caelux** (Pasadena, California): Caelux is developing a flexible solar cell manufacturing process and design that minimizes the amount of semiconducting material used. This has the potential to significantly improve device efficiency while dramatically reducing production costs.
- **Solexant** (San Jose, California): Solexant is developing a new thin film material from substances that are non-toxic and not rare. These devices will be constructed with a nanoparticle ink that can be printed and will result in commercially viable efficiencies using scalable, low cost processes.
- **Stion** (San Jose, California): Stion is developing a thin film technology that will allow two high-efficiency thin film solar devices to be stacked, allowing for much better absorption of light and power generation. The device is constructed in a way that significantly reduces cost, simplifies manufacturing and reduces materials utilization over traditional designs.

The Tier II projects are as follows:

- **Crystal Solar** (Santa Clara, California): Crystal Solar is developing a new technology for the fabrication, handling, processing, and packaging of very thin single crystal silicon wafers (four times thinner than standard cells). This solution uses much less silicon, eliminates many of the wasteful and expensive wafer processing steps and addresses the problem of handling very thin wafers.