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QUOTE OF THE DAY

“

As in real life, complex engineering designs demand a pragmatic approach.”

- Haresh Sippy

First Solar to Acquire TetraSun to Expand Addressable Market Opportunity

News Apr 11, 2013 by [Jeff Shepard](#)



First Solar, Inc. is acquiring **TetraSun**, a solar photovoltaic (PV) technology startup which has developed a break-through cell architecture capable of conversion efficiencies exceeding 21 percent with commercial-scale manufacturing costs comparable to conventional multicrystalline silicon solar cells. First Solar signed a definitive agreement to acquire TetraSun from **JX Nippon Oil & Energy Corporation** and other investors, including TetraSun management. Terms of the transaction, which is expected to close in the second quarter of 2013, were not disclosed. First Solar and JX Nippon Oil & Energy also have entered into discussions on an agreement to distribute the technology in Japan.

TetraSun's core technology is a proprietary cell architecture which breaks the historical tie between high-efficiency and high-cost. Compared to other high-efficiency crystalline silicon cells, TetraSun's advanced cell design is simpler and optimized for manufacturing, requiring fewer process steps with wider tolerances. The design enables high-volume production with higher yields using readily available equipment. Cost-effectiveness is further enhanced by using large-format (156 mm) n-type wafers and eliminating the need for expensive silver and transparent conductive oxide (TCO). The technology also benefits from a low temperature coefficient of power, which produces superior energy yields in hot climates compared to typical silicon PV modules. First Solar tentatively plans to begin commercial-scale manufacturing of the new technology in the second half of 2014.

"This breakthrough technology will unlock the half of the PV market which favors high-efficiency solutions, which has been unserved by First Solar to date," said Jim Hughes, CEO of First Solar. "This new capability to meet the needs of customers with distributed generation applications, coupled with our leading CadTel offering which remains the benchmark for utility-scale systems, gives us a unique end-to-end suite of solutions to serve the full spectrum of commercial applications."

"We are proud to join the First Solar team, which brings global reach, financial strength and a proven track record scaling disruptive technologies," said Denis De Ceuster, CEO of TetraSun. "This is a game-changing technology, and with First Solar we have the freedom to continue our blank-canvas approach, unconstrained by preexisting designs or production equipment, and backed by the strongest balance sheet in the industry."

"JX Nippon Oil & Energy was among the first to recognize the potential of this technology, and we are very pleased to continue working with this leading energy company to bring this product to market," said Jim Hughes. "Japan is an

important market with unique energy challenges, and we believe this new technology is well-suited to help them meet their energy needs."

All fourteen of TetraSun's associates will join First Solar and continue to be based in San Jose, Calif. The technical team brings First Solar significant expertise in silicon PV R&D and a track record of innovation at companies like SunPower and Fraunhofer ISE, where they earned world-records for silicon cell efficiency.

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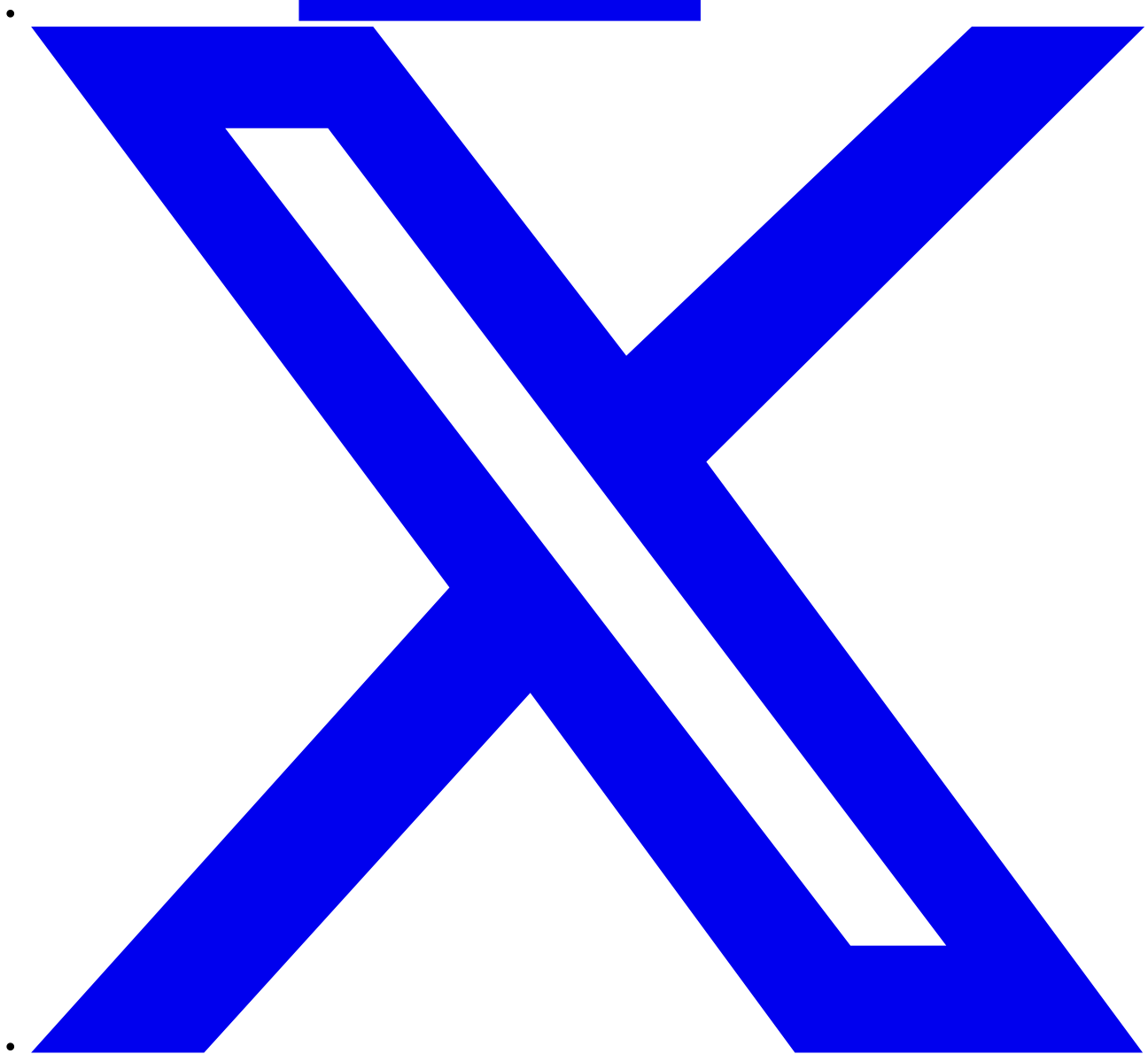
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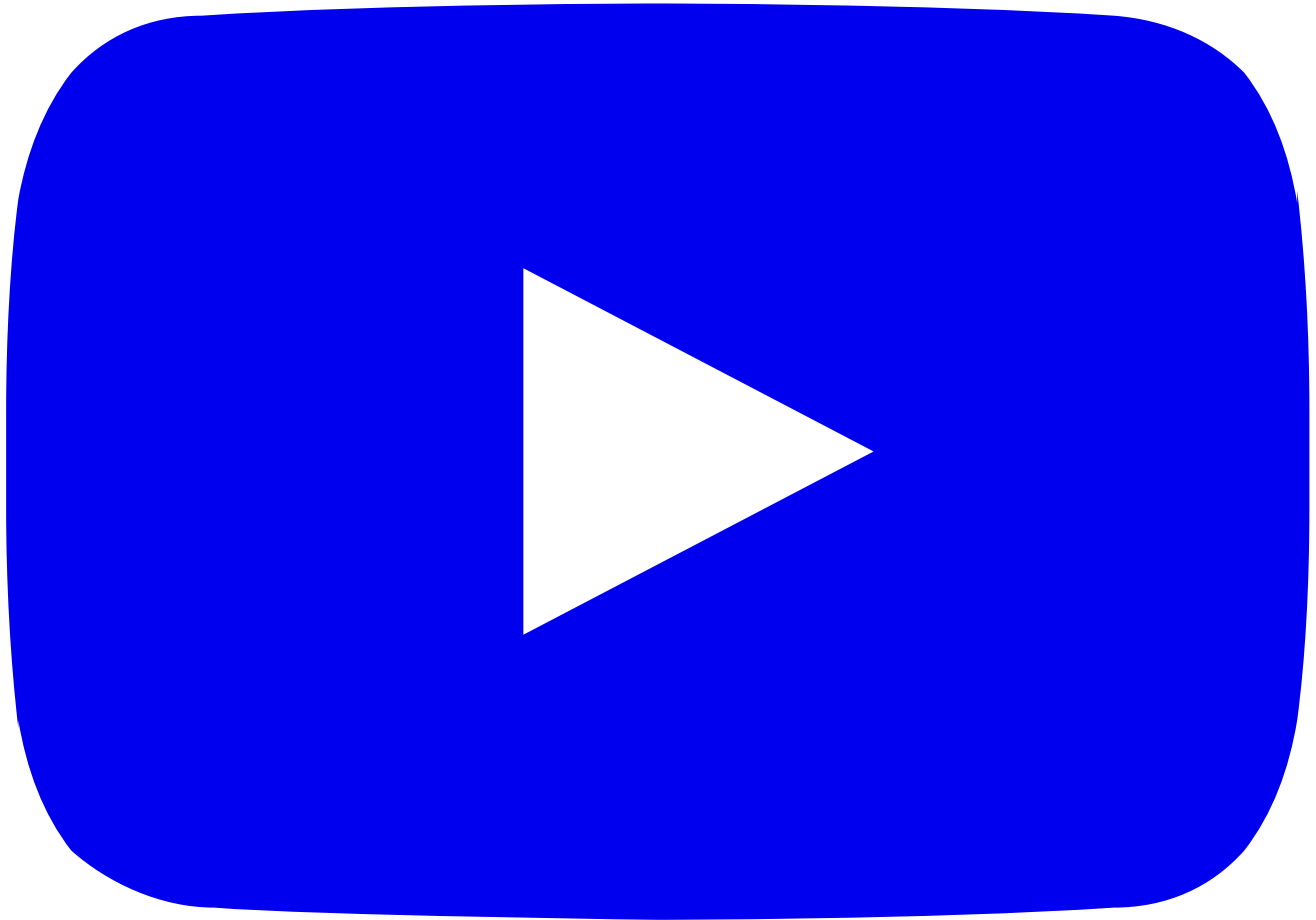
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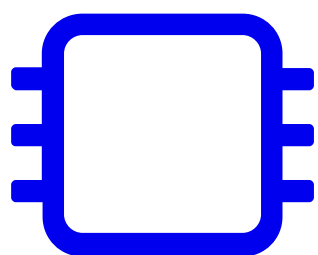
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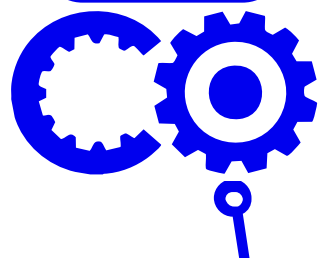
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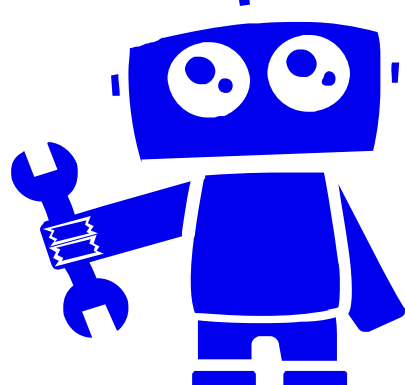
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