



Power of Parallel Architecture

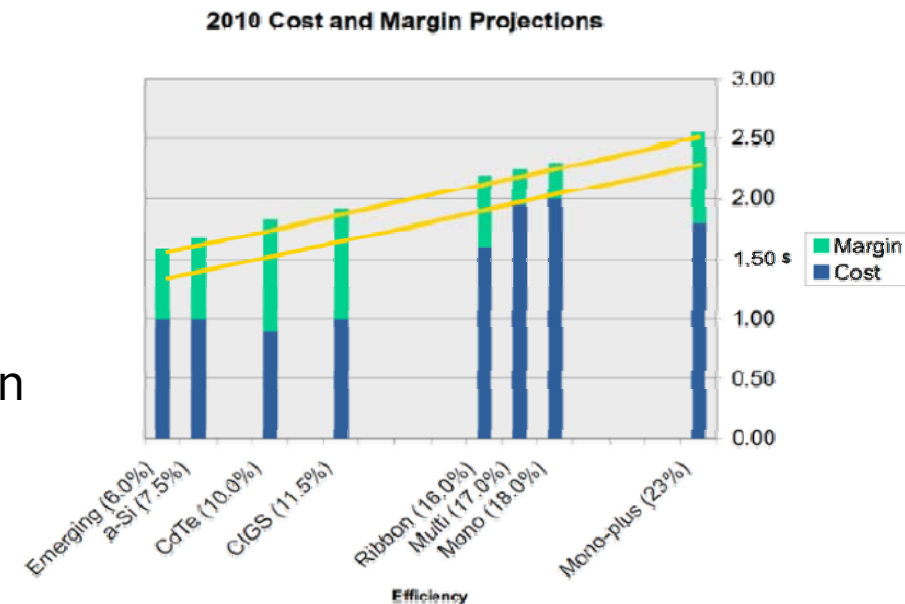
Corporate Presentation

March, 2009

Core premises

Changing market dynamics

- Lower cost thin film PV will dominate every cost and IRR driven market
- First Solar advantage in utility scale market drives fierce competition for market share in commercial rooftop market
- Commercial rooftop markets will represent 60% of all installations by 2012



Innovation in power electronics will play a critical role in changing dynamics

Investment thesis

A window of opportunity to take the lead for thin film BIPV

- A parallel system architecture changes the deal for PV system design
- Patented technology enables a parallel architecture with an industry standard form factor
- Technology drives the lowest inverter cost per watt in the industry
- Thin film products are key enabler for rooftop thin film applications
- Strategic relationships in Europe with US\$10M project pipeline
- Changing industry dynamics create a \$300M/yr opportunity with thin film PV

Where we are today

Product is proven and ready to go

- Technology is proven and commercialization risks are the past
- Manufactured 2,200 Gen I units
- More than 1,200 Gen I units in the field and performing to specification
- Two contract manufacturers engaged with capacity to produce 6 - 10 MW/mo
- On target for US\$0.15/watt in 2010 and US\$0.10/watt before 2012



Where we are today

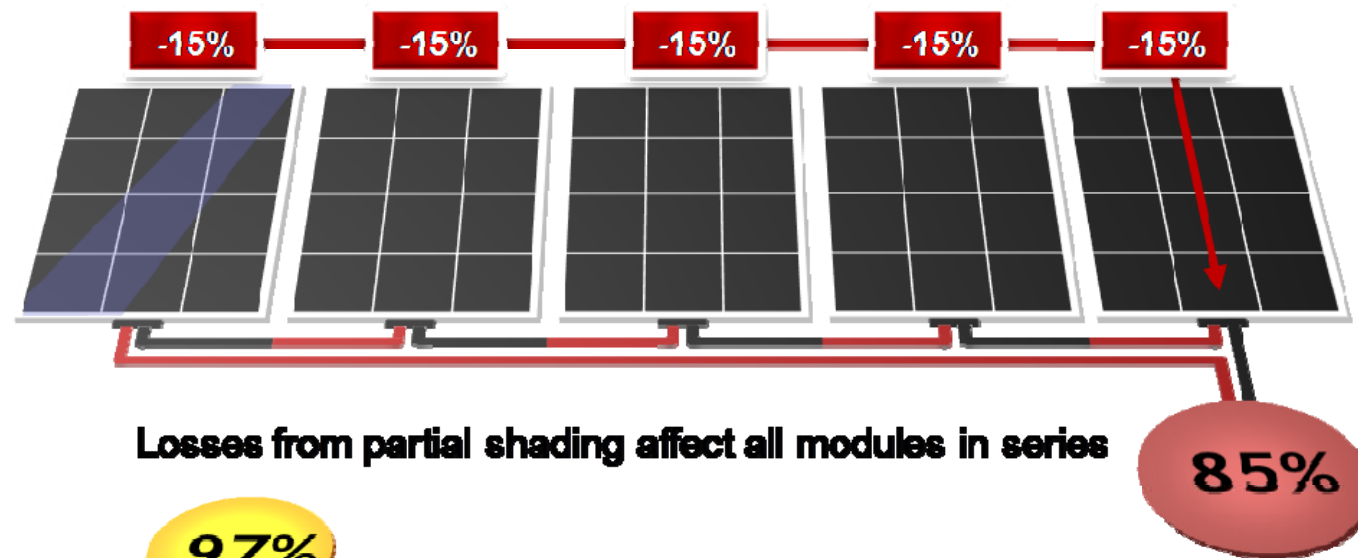
Test market in Spain to validate business model

- Private label for Salicru S.A. - Spain's leading power electronics company
 - 40% of UPS and Building Energy Management market in Spain/Portugal
 - Initial PO for 15 MW worth US\$5 million; targeting 80 MW (US\$25 M) over 2 yrs
- 12 MW permitted and in the queue in Greece - valued at US\$5+ million
- Other strategic partnerships with:
 - Major Spanish construction company - Copcisa S.L.U
 - Leading Spanish PV systems integrator - Solaer S.A.
 - # 2 project developer in Greece - Vector Heliodynamie S.A.
 - Leading Greek UPS supplier - ace Power Electronics S.A.
 - Lyons based systems integrator to enter France - Solisea S.A.

System design: "series" vs. "parallel"

Difference is driven by inverter architecture

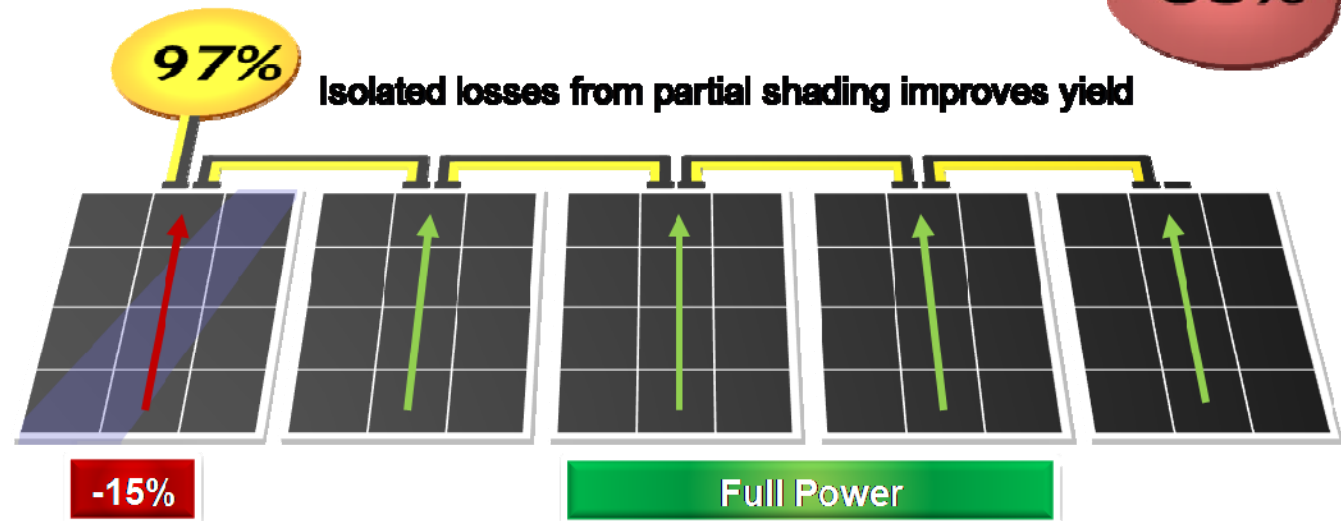
Conventional Design
"Series" Wiring
Long strings of panels



Losses from partial shading affect all modules in series

85%

Sustainable Design
"Parallel" Wiring
One panel at a time



97%

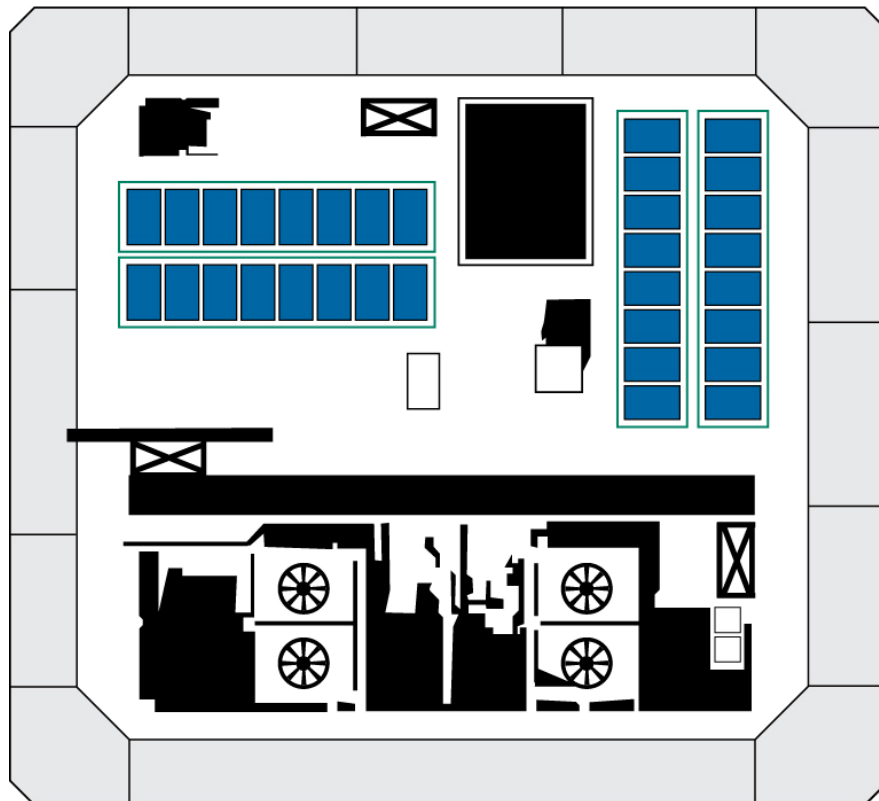
Isolated losses from partial shading improves yield

-15%

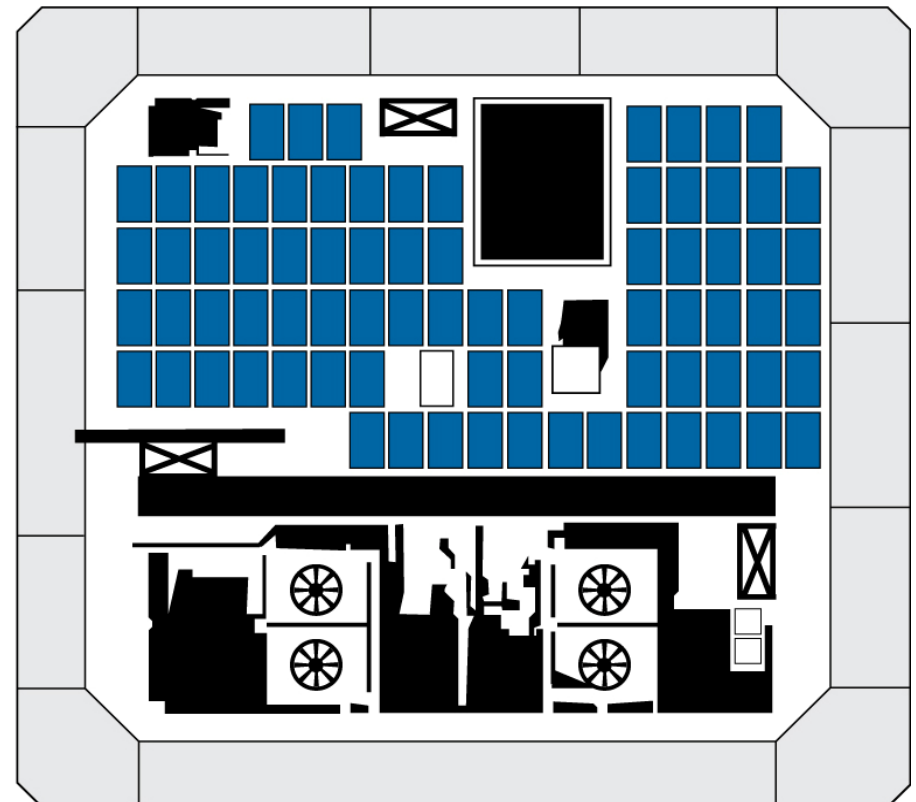
Full Power

Parallel value: no more string calculations

Series = limited coverage



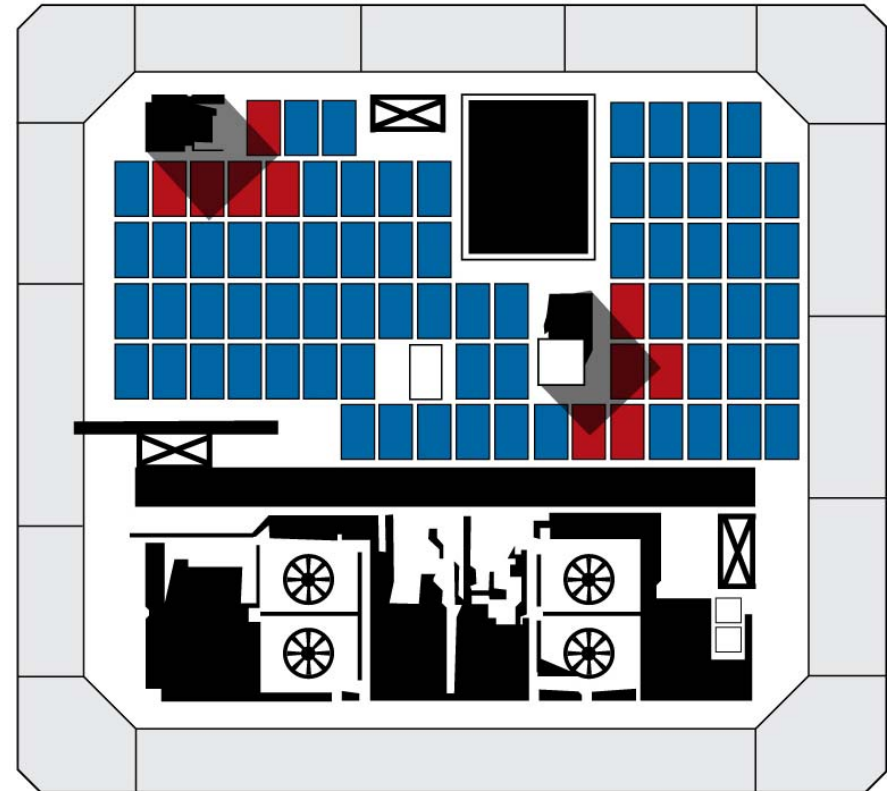
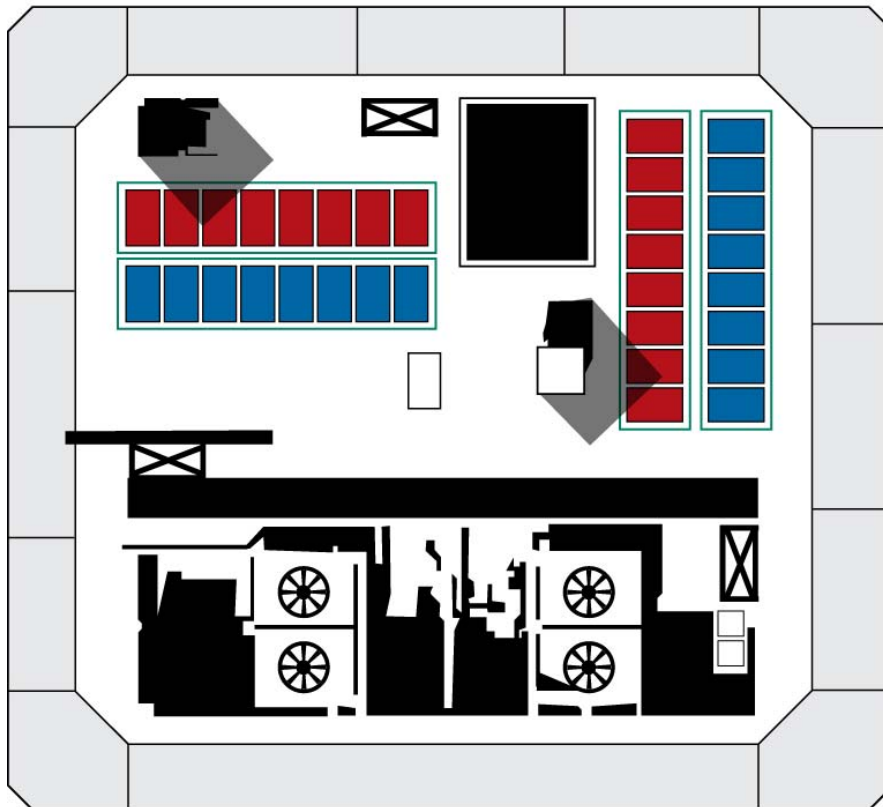
Parallel = maximum coverage



Parallel value: takes shading out of play

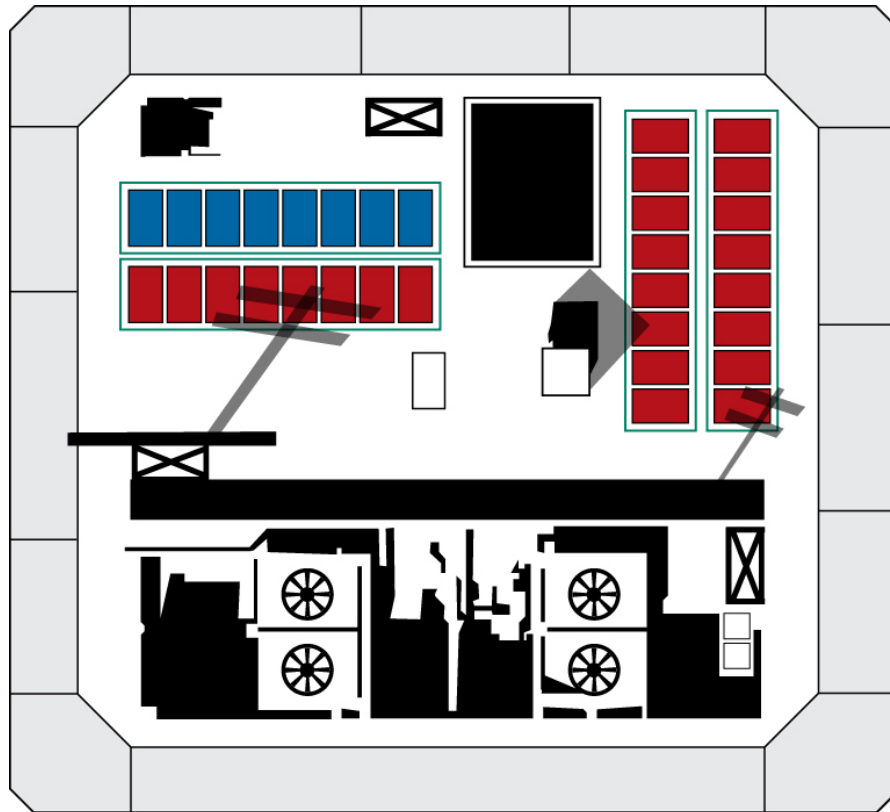
Series = disproportionate losses

Parallel = shading out of play

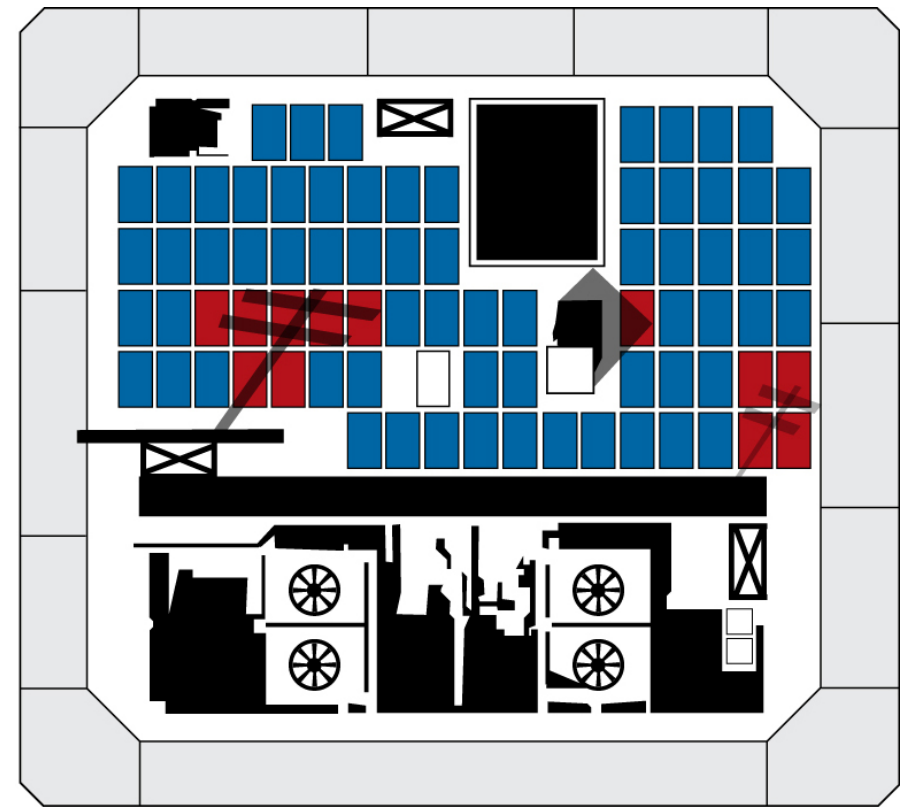


Another angle

Series: needs specialist design



Parallel: simplicity wins



In summary

Parallel architecture is clearly a better solution

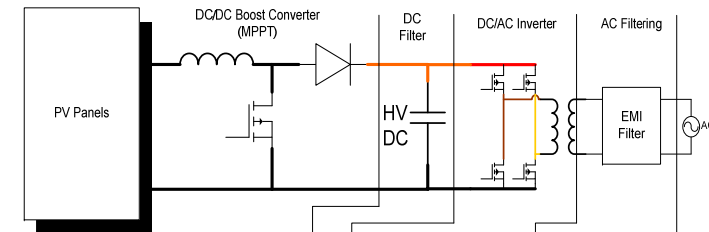
- Simplifies system design and installation - eliminates the PV specialist
- Higher penetration of limited area expands suitable sites - a bigger market
- Enables new distribution channels with builders and building products suppliers
- Critical to thin film high penetration of commercial rooftop market

How we do it

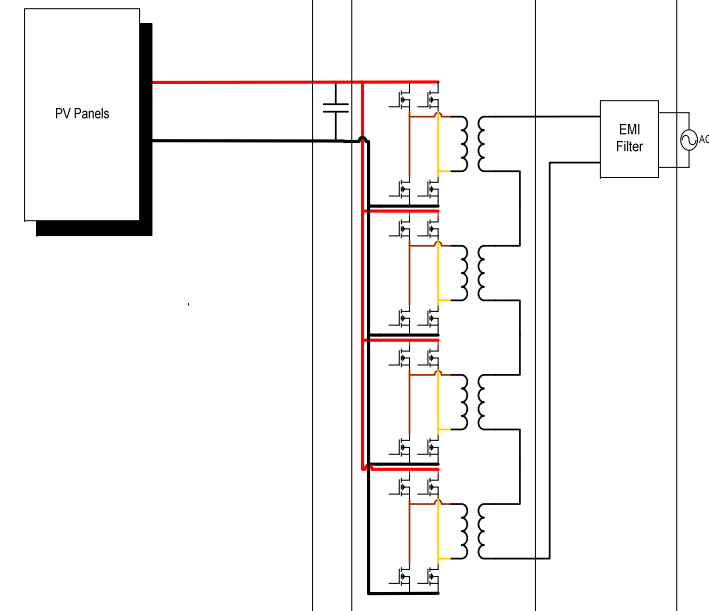
Industry's only high efficiency low voltage inverter

- First to beat the “ I^2R ” problem
- Splits input current to share current between four H-bridge/transformer pairs
- Software controls synthesis of sine wave by individually controlling each H-bridge
- Transformer secondaries in series step up voltage and enable single stage power conversion
- 9 US patents issued; others pending

High Voltage Inverters



Sunergy Inverter



Parallel solution with standard form factor

Alternative solutions add cost and maintenance complexity

Alternative	Approach	Yield Advantage	Incremental Additions	Cost Factor	Maintenance
Sustainable Low Voltage Inverter	Parallel wiring	Yes	Yes	Low cost/watt	Single failure point Same paradigm Thin film focus
DC Boost (Solar Edge)	Module level DC tracker	Yes	Yes	New component plus inverter	Multiple failure points Change in paradigm Crystalline focus
Smart Diode (National Semi)	Bypass shaded module	Yes	No	New component plus inverter	Multiple failure points Change in paradigm Crystalline focus
Micro-Inverter (Enhpase)	Module level Inverter	Yes	Yes	High cost/watt inverter	Multiple failure points Change in paradigm Crystalline focus

Only solution for commercial markets

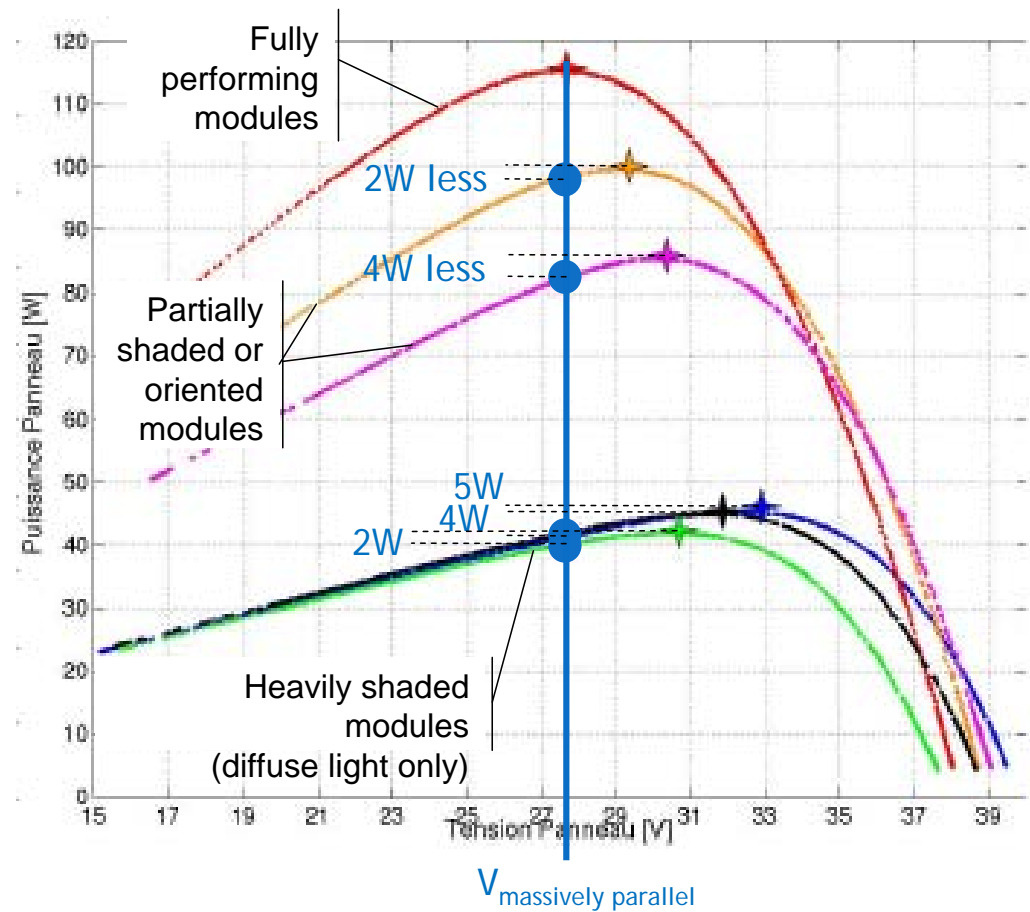
Module level solutions not an option in cost & IRR driven markets

PV Technology	Crystalline (200Watt)			Thin Film (100 Watt)		
		\$3.45/watt			\$2.35/watt	
Alternative	Cost/watt (incl wire)	% of system (ex:install)	% increase over base	Cost/watt	% of system (ex:install)	% increase over base
Sustainable Low Voltage Inverter	\$0.40	10%	1%	\$0.38	14%	0%
Micro-Inverter	\$1.01	23%	17%	\$2.01	46%	60%
DC Boost	\$0.57	14%	5%	\$0.76	25%	14%
Smart Diode	\$0.68	16%	8%	\$0.98	29%	22%
Hi Volt Inverter (for reference)	\$0.38	10%	0%	\$0.38	14%	0%

The issue of power point tracking?

Comparing the alternatives

- Stars indicate theoretical max power from underperforming modules
- Blue dots indicate max power from underperforming modules with STG Inverter
- Fully performing modules deliver 100% of potential with parallel architecture
- Assuming 15 modules (10 of which are fully performing) the spread between the micro and the parallel wiring is less than 1%



In summary

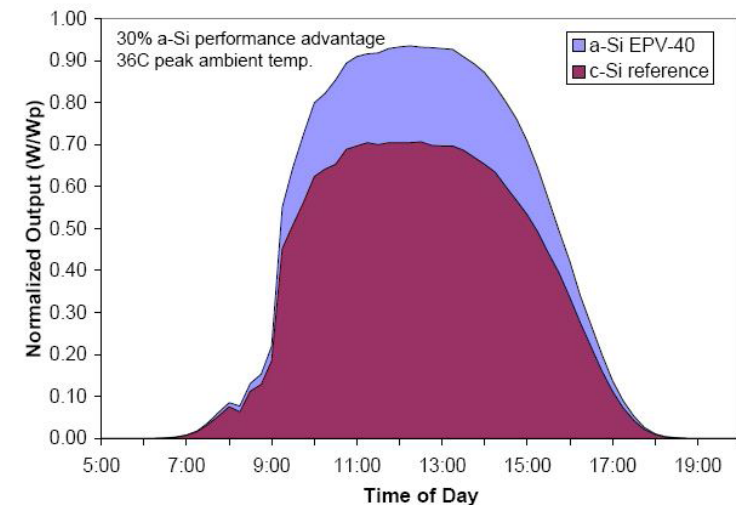
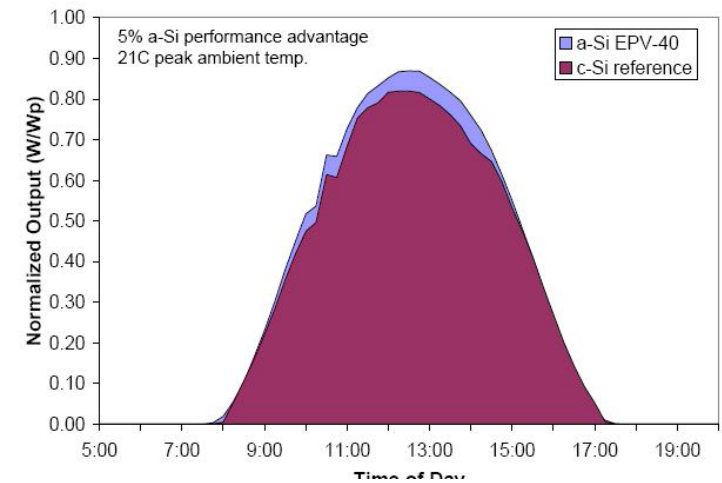
Very different markets; very different “total” value propositions

- Both deliver value of module level power point tracking & incremental additions
- Sustainable greatest value is in cost and IRR driven markets - i.e. investor driven thin film for commercial applications
- Module level solutions greatest value is in top line production markets - i.e. crystalline and residential applications
- Crowded field of different module level devices with no one leader emerging
- Only parallel solution for cost and IRR driven markets

Why focus on thin film

Thin film will win the commercial rooftop market

- 40% lower cost per rated watt than crystalline
- 12% -15% more kWh per rated watt above 25°C
- Potential to drive higher cost crystalline out of commercial rooftop market
- Thin film needs a low-cost, high-efficiency parallel architecture to achieve its targets
- Oversupply drives a need for differentiation



STG + thin film = highest returns

Lower cost and higher investment yields

	C-Si (HV)	CdTe (STG)	Spread	CdTe (micro)	Spread
Area in M ²	295	360	22% More	381.6	-
Rated Watts	40	40	-	40	-
Total Cost	\$202,385	\$144,931	29% Less	\$211,413	4% Less
Cost/rated watt	\$5.05	\$3.62	29% Less	\$5.29	1% More
Energy Output (kWh)	49,153	54,446	11% More	54,990	11% More
Revenue @0.32€	\$20,447	22,649	11% More	\$22,876	11% More
Financial					
Debt	70%	70%	-	70%	-
Interest	5.5%	5.5%	-	5.5%	-
Term of Loan	15	15	-	15	-
Annual Yield	11.2%	17.6%	57% Higher	5.3%	52% Lower
IRR	10.2%	16.5%	61% Higher	4.3%	58% Lower

Our business model

To be the market leader for thin film

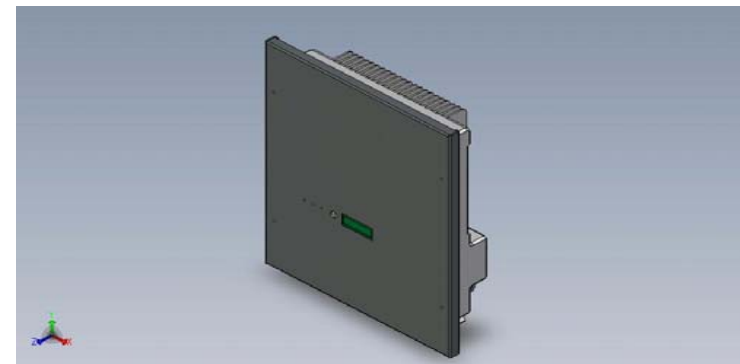
- Focus on cost and IRR driven markets
- High volume manufacturing model to deliver industry's lowest cost solution
- Private label to established suppliers of power electronics and similar building products
- Partner strategically to deliver complete product solutions to emerging channels
- Sell into ground based thin film systems based on cost/watt and zero module mismatch losses



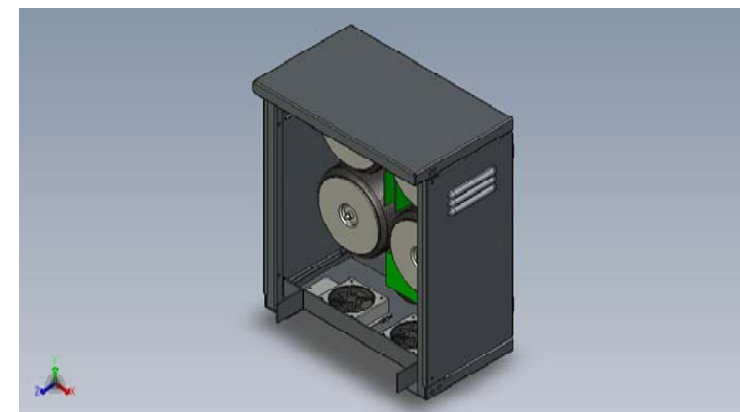
Our products

Technology & design drive low manufactured cost *Gen II Inverter module*

- Lower voltages = lower component cost and better reliability
- Lower voltage = high volume manufacturing model
- Thermal design = better reliability & performance
- One electronics platform supports multiple product offerings (products from 3kW - 20kW)
- Two voltage ranges cover all products in the market
- Modular design enables “call centre” service model



Transformers-Interconnection



2009 plan

Success metrics for 2009

- UL VDEW and CE certifications: May/June
- 200 - 400 unit trial production runs with 2 CM's June/July
- Launch marketing (ES-FR) campaign at "Genera" show May
- Begin production ramp for Salicru July/Aug
- Strategic marketing with at least 2 thin film companies June/Sept
- 2nd Salicru style private label relationship Sept/Oct

2009 plan

Success metrics for 2009

- Launch North American marketing campaign Oct/Nov
- MW scale orders to off load current inventory (US\$2M) May/Sept
- Private label for German (low voltage safety) market Oct/Dec
- 6 - 10 MW (US\$2.2 - US\$3.6M) units sales in Spain Dec
- 4 - 8 MW (US\$1.6 - US\$3.2M) unit sale into Greece Dec
- 12 - 20 MW order book for Q1 2010 Dec/Jan
- 4- 8 MW production capacity Dec/Jan

In summary

A once in a lifetime corporate opportunity

- Convergence of the right product with an emerging billion dollar opportunity
- In the market with clear revenue visibility into 2010
- Technology is tested and commercially proven
- Tightly focused strategy to address challenges and drive volumes
- Management understands solar PV and high volume manufacturing

Forward Looking Statement

This presentation contain statements that constitute “forward looking statements” within the meaning of National Instrument 51 - 102. In particular we include

- Statements on the future size of the solar PV market and the size of the solar inverter market;
- Statements concerning our production plans which make assumptions concerning manufactured costs, sales and average selling prices; and
- Statements concerning factors which we believe relevant in assessing whether our plans are achievable

Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performances or achievements to differ materially from the anticipated results, performances or achievements expressed or implied by such forward-looking statements.

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