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Bifacial efficiency at monofacial cost

Building Integrated photovoltaic (BIPV)

Energy Solutions for the World

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Value Proposition

- **Business Model**
- **Bifacial Efficiencies at Monofacial Cost**
  - 25% – 80% Additional Energy Power Advantage
  - Overall Lower Cost Photovoltaic System through Proprietary Technology (2/3 cost of Mono-facial cells/modules)
  - Reduction in Installation Cost
- **Bifacial Cells & Modules Are the Best Product for Building Integrated Applications (BIPV)**
- **Customer Focused Management with Well Established Industry Relationships Worldwide**
  - Japan, Germany, China, Korea, UK and Others
- **Customers In-hand**
- **Competitive Intellectual Property Position**

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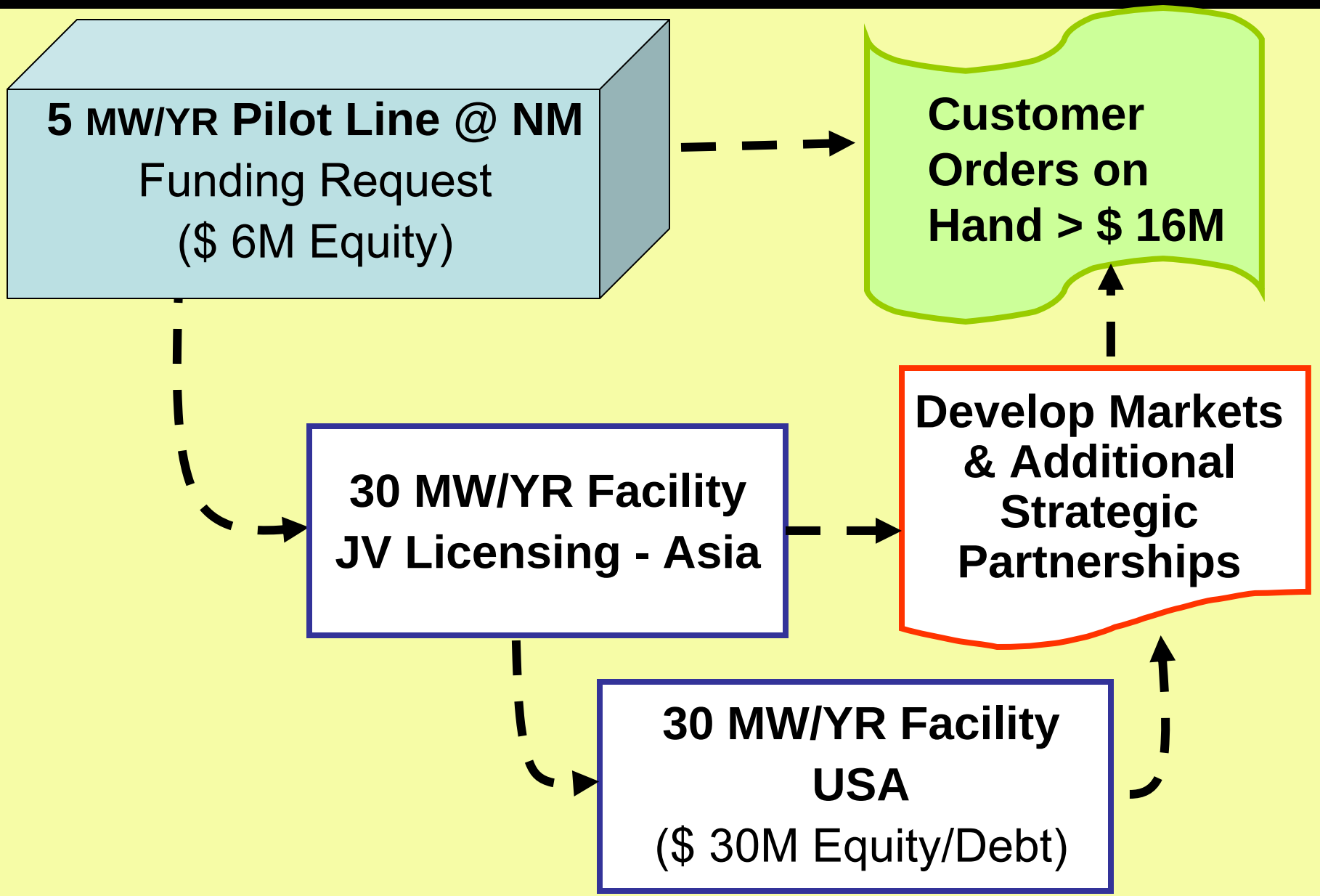
Business Model



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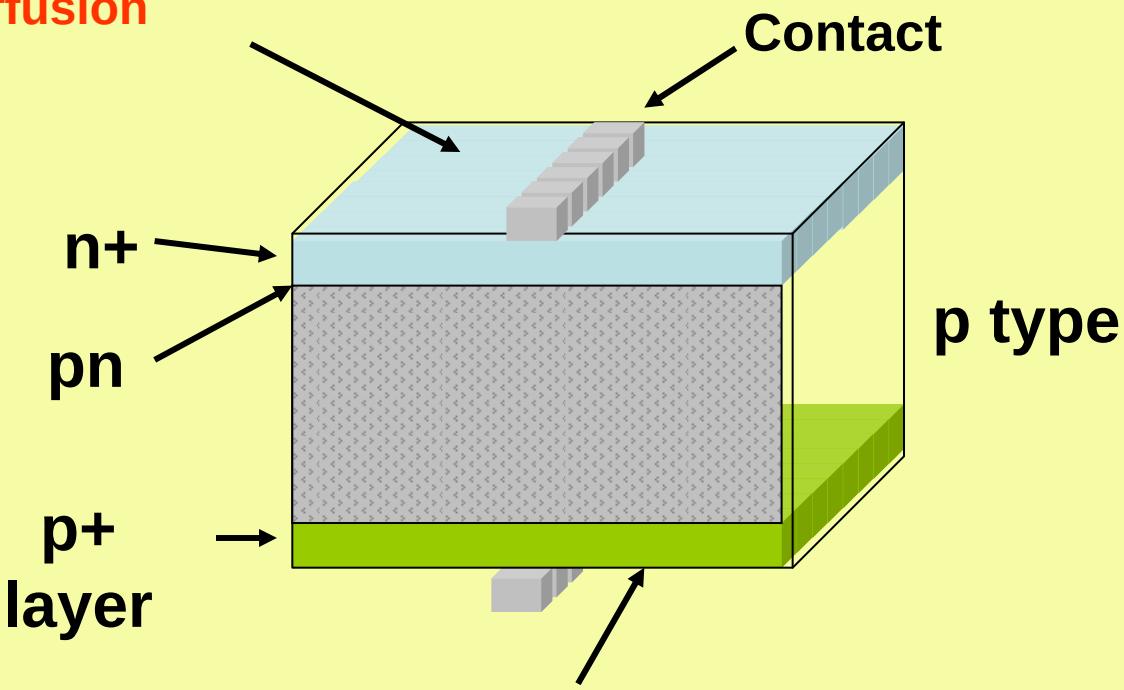
How Bifacial Works?

Gamma High Efficiency Bifacial (n+pp+)

Formed by Phosphorous Diffusion



Formed by Boron Diffusion

(Gamma's Key Technology)

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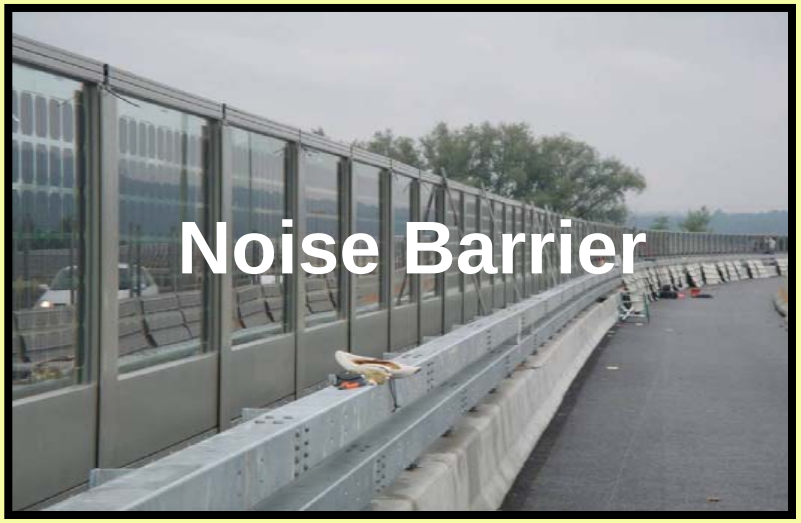
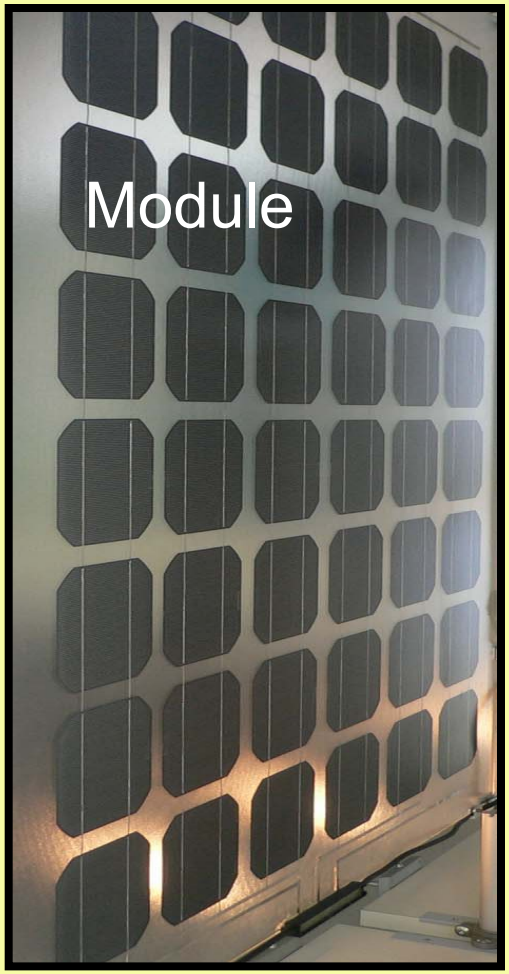
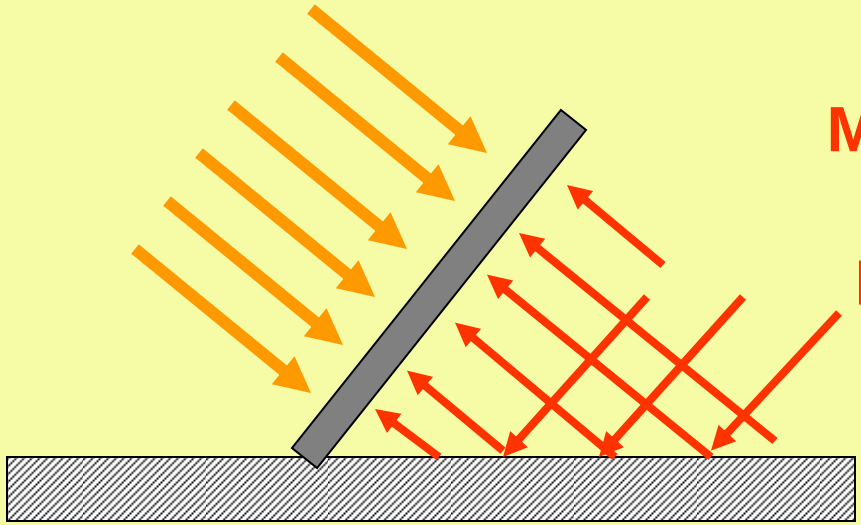
Vertical - Applications



Standard Applications



Reflective Albedo: Sunlight that is Scattered and Reflected from Bright Ground Surfaces like Sand, Snow, White Gravel and Other Reflective Materials



10 to 50% More Power from the Back Side

Front Glass & Transparent Back Sheet

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Target Applications

CONERGY

Standard

Off-Grid

SOL INC.
www.solarlighting.com

OPEN ENERGY corporation

BIPV

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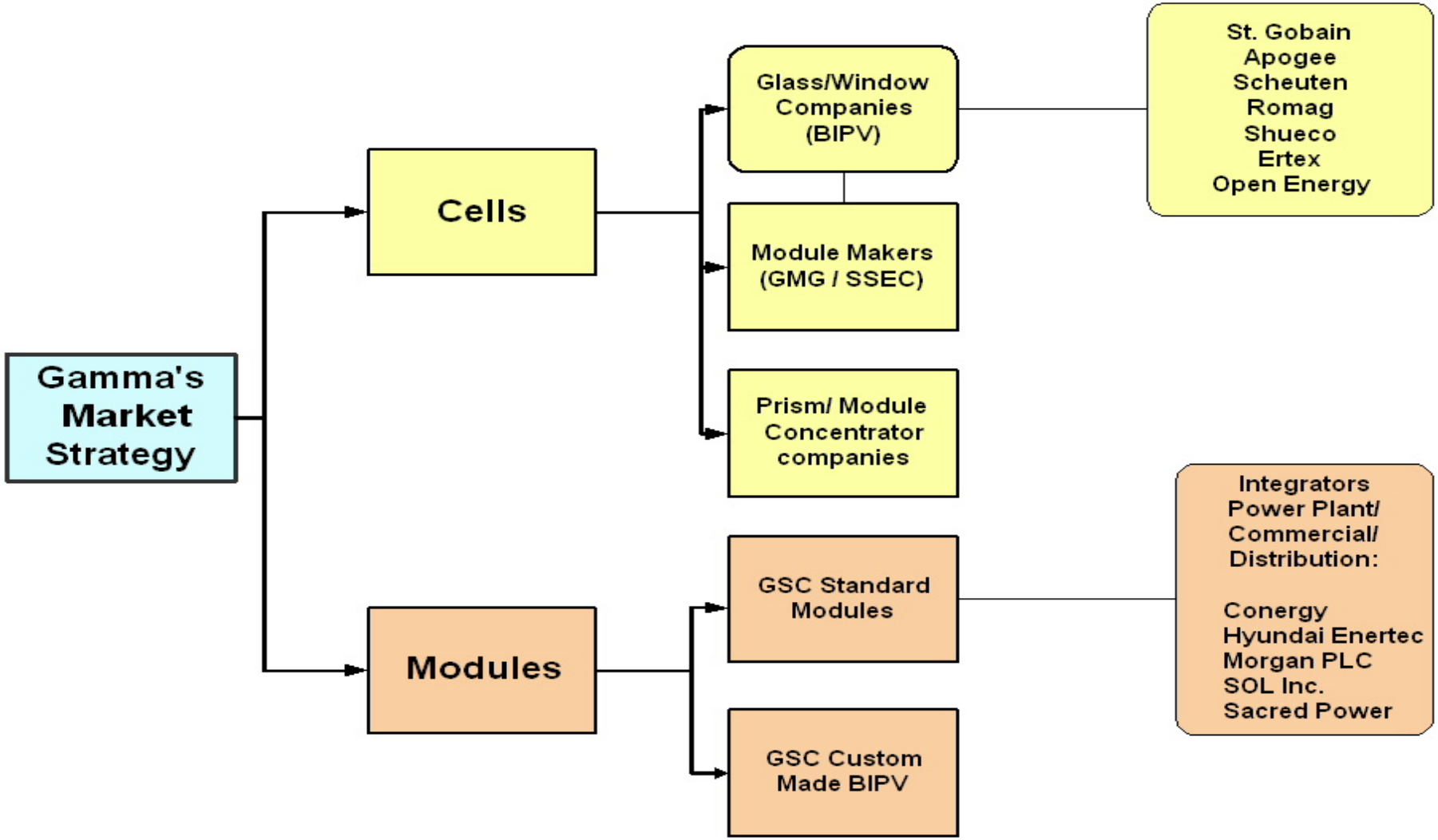
Market



Building Integrated PV (BIPV) Segment Expected to be 40% of the PV industry
(Prometheus Institute, July 2007)

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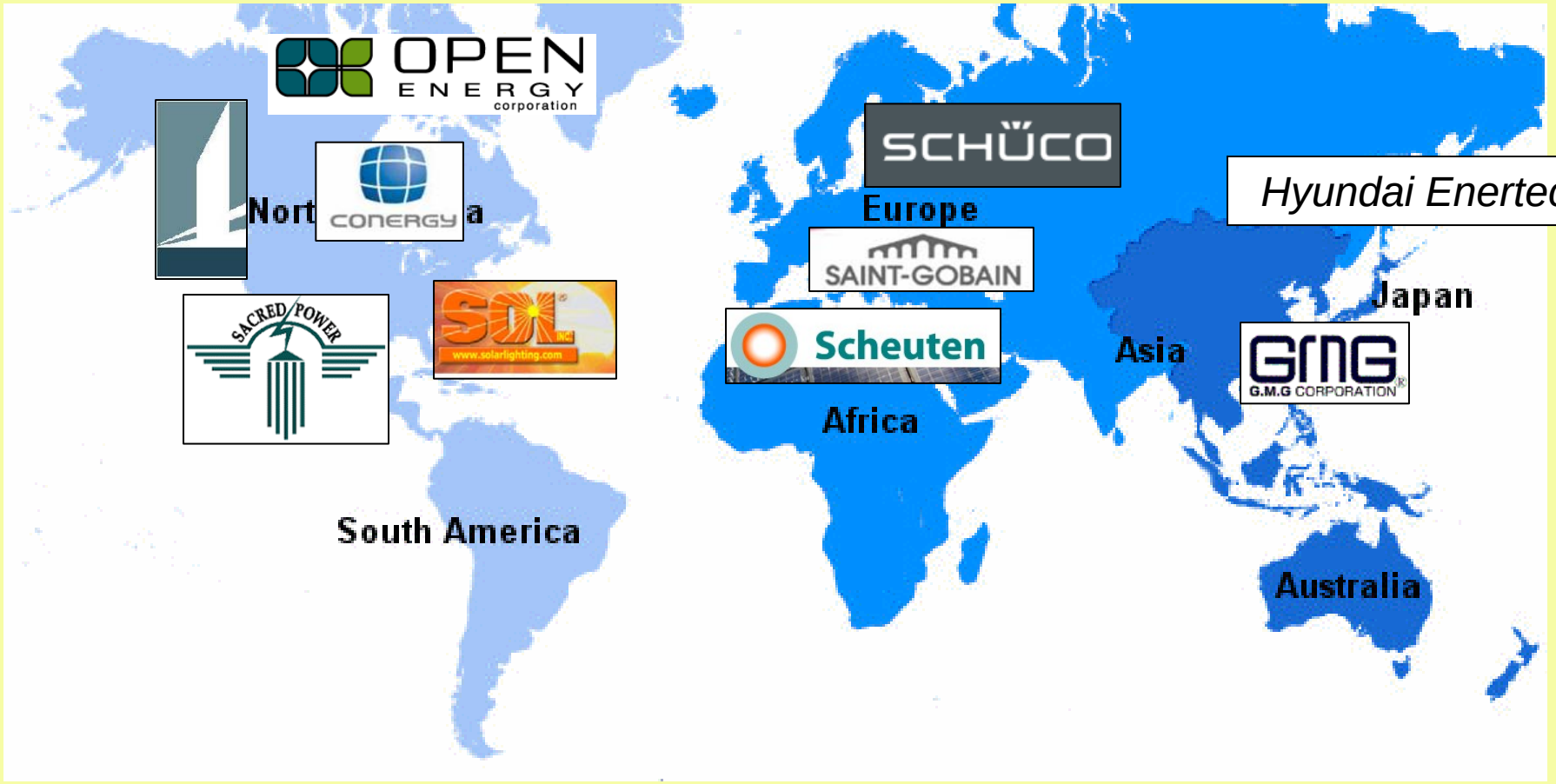
Target Customers



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Competitive Advantage

Gamma Solar

- Bifacial Efficiency at Monofacial Cost
  - 25-80% more energy per unit
- Highest Bifacial Conversion Efficiency
  - 17% both sides
- Low Production Cost
  - 2/3 cost per peak watt
- Life Expectancy Guaranteed
- **Quicker System Payback**

Competition

- **Monofacial/Standard** – Only the Front Generates Power
- **Other Bifacial** Technology with Lower Efficiency:
  - Sanyo, Solar Wind and Hitachi
- **Thin-Film** Lower Efficiency and Undefined Life Expectancy

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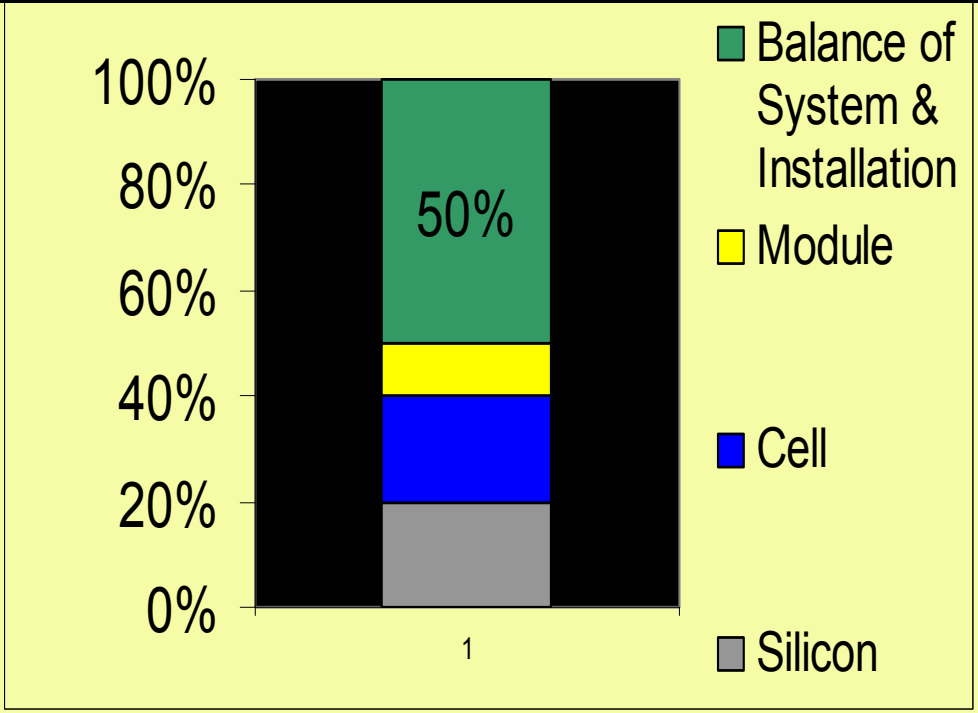
Solution



BIPV - Building Integrated Photovoltaic
"Reduce Cost of Installation with Gamma Solar High Efficiency Bifacial Modules"

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Financials

Year	Revenue	EBIDAT
2007	$1M	($250k)
2008	$10M	($0.5M)
2009	$36M	$3M
2010	$60M	$7M
2011	$85M	$12M

- 2007 Revenue on Resale
- Profitable by Year 3
- Growth in Line with the Industry
- Revenue is a Combination of Sales & Licensing Fees/Royalties

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Executive Management

- **Co-Founder & CEO Rudy J. Magasrevy**
  - International Business Management and Operations
  - Assignments in Asia
  - Six Sigma Black Belt Certified; Numerous Board Seats on International JV Companies.
- **Co-Founder & CTO Dr. Toshio Joge**
  - Developed Streamlined Mass Production of Bifacial Solar Cells & Modules
  - Expert in Photovoltaic Bifacial Solar Cells Techniques & Applications
- **VP Sales & Marketing**
  - International Business Development Experience in Renewable Power Energy Markets
  - Worldwide Energy Industry Network
  - Numerous Board Seats for Small Start-ups
- **CFO (Currently Recruiting)**

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Board Directors

- **Three Founders**
- **David Hoffman**
  - 30 years of Utility Experience plus 10 years in the Energy Sector as a Technology Developer and Entrepreneur
  - Founder of Celerity Energy
  - Corporate Vice President and President of PacifiCorp Development Company responsible for International Development and Corporate Technology Ventures.
- **Jon Clemens**
  - Electrical Engineer with a PhD from MIT
  - Former President and CEO of Sharp Laboratories of America
  - RCA research laboratories - spent 21 years in charge of consumer electronics research in multimedia

Technical Advisory Team

- **Dr. Saitoh**
  - PhD from Osaka Univ. in Electrical and Crystalline Solar Cells
  - Senior Researcher at HCRL (Multicrystalline Silicon Solar Cells)
  - Professor at Tokyo University (Electrical & Electronics)
- **Dr. Warabisako**
  - PhD from Kyushu University in Electrical Engineering/ High Efficiency & Low-Cost Crystalline Silicon Solar Cells)
  - Research Consultant at AIST (*4) (Research Center for Photovoltaics/ Crystalline Si Cell)
- **Dr. Matsukuma**
  - PhD from Kyushu University in Electrical Engineering/ High Efficiency & Low-Cost Crystalline Silicon Solar Cells)
  - Professor at Sojo University, Venture Business (Simulator of PV System Design)
  - Senior Engineer at HITACHI Ltd. (National Project/ Low-Cost Crystalline Silicon Solar Cells)

Intellectual Property

- **Trade Secrets and Process Know-How**
  - Proven Technology for Mass Production
- **Patents Pending**
  - Process
    - Mass Production (>30 MW/yr) @ Low Cost of Bifacial Cells
  - Product
    - Thinner Cell at ~160 μm with >17% Efficiency
    - 100% Bifaciality (Front = Rear)
    - Low Cost Bifacial Module Assembly

GAMMASOLAR Investment Opportunity

- **$ 6 Million -- Series A Round to Fund Our 5 MW/YR with Output Committed into 2009**
- **Business Model Leveraging Strategic Relationships**
- **Gamma Serves a Niche Market within the BIPV Segment**
- **Strong Management Team**
- **Exit Strategy - Strategic Merger & Acquisition**
  - **Strategic Relationships Evolve into Acquisition**
- **Competitive Intellectual Property**

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Support Slides

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Competition

Maker	Type of Cell	Cell Size	Cell Efficiency	Production
Gamma Solar	CZ- n+pp+ Boron BSF	125mm x 125mm t: □200 µm	16%(F) /14% (R)	Phase 1: Production starting from Sep 2008
	CZ p+nn+ Phos. BSF	156mm x 156mm T: □180 µm	17%(F) / 17%(R)	Phase 2: Production starting from Sep 2009
Hitachi (Japan)	CZ- n^+pp^+ Boron BSF	125mm x 125mm t : 210 µm	15.5%(F)/13% (R)	About 5 MW/year
Solar Wind (Russia)	CZ- n^+pp^+ Boron BSF	103mm x 103mm t: 350 µm	12.7 -16.1% (F) 7.6-9.8% (R)	Less tahn 5 MW/year
	CZ- p^+nn^+ Phos. BSF	125mm x 125mm t: 250µm	14.5% (F)/ 13% (R)	New Product: < 2 MW/yr
Sanyo (Japan)	CZ-HIT Double Amorphous +n Silicon bulk + Amorphous	125mm x 125mm t: 200µm	18.5% (F)/ 13% (R) (estimated)	Estimated only and not guaranteed because of unstable performance & reliability

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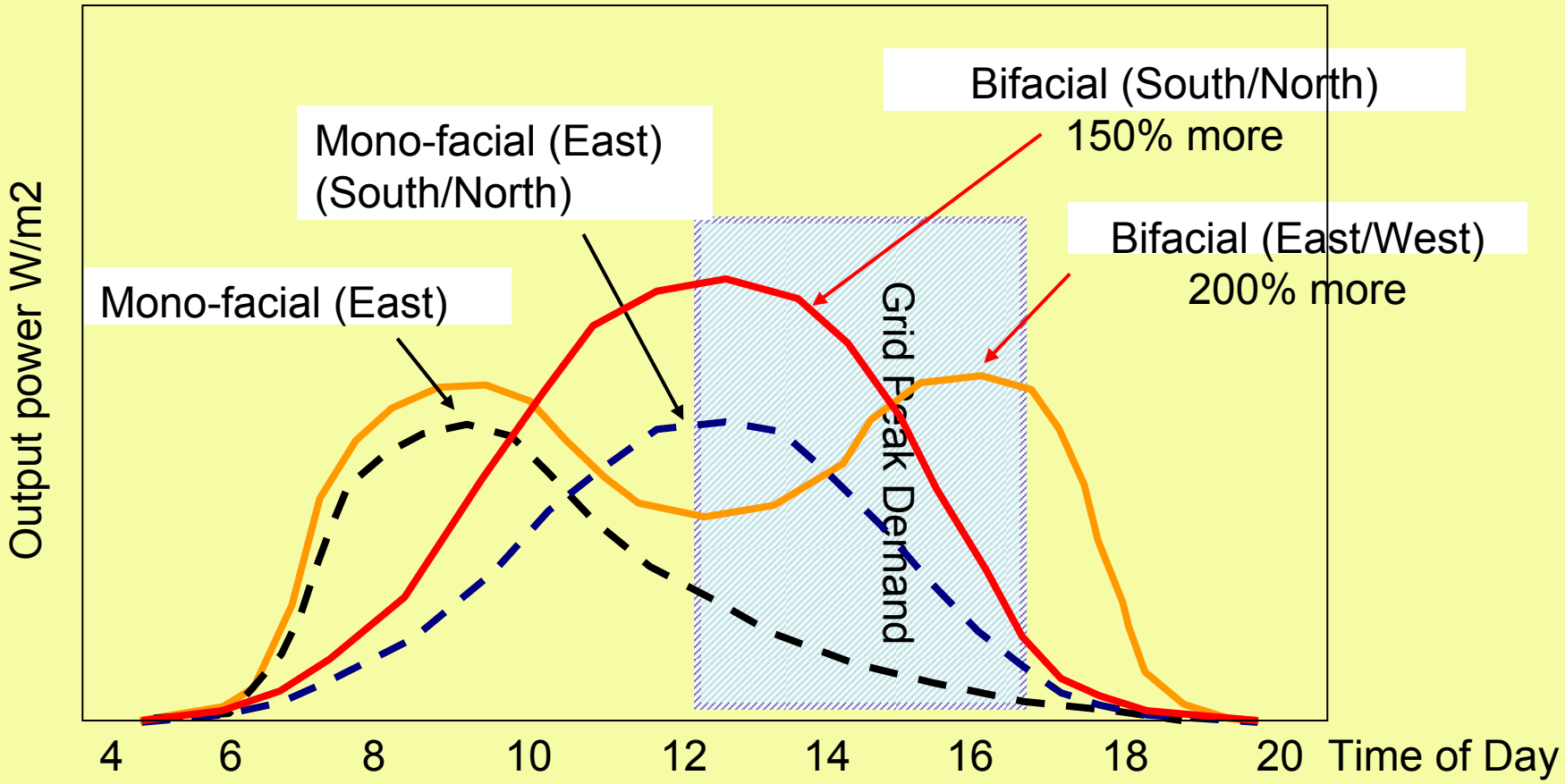
Vertical - BIPV

Yearly average of daily power distribution (365 days)



Average daily power distribution per year (365 days)

Future Development

GAMMA SOLAR HIGH EFFICIENCY CELLS DEVELOPMENT

Phase I

Monocrystalline
125mm x 125mm **p-type**
200 micron
F 15.5% (2.3Wp) - R 14% (2.1Wp)

Phase II

Monocrystalline
156mm x 156mm **p-type**
200 micron
F 16% (3.8Wp) - R 14% (3.3Wp)

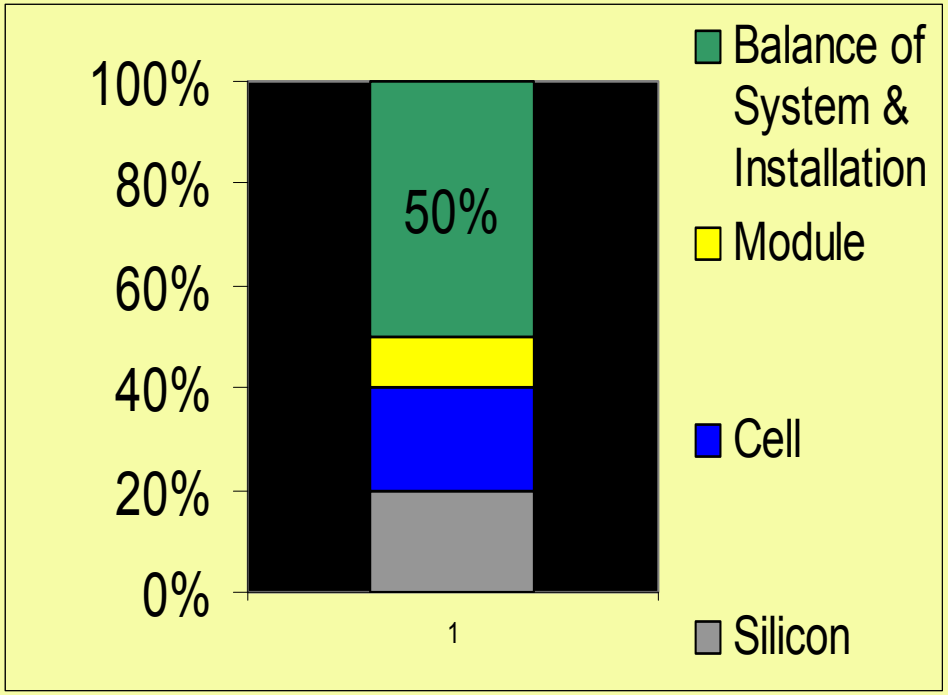
Phase III

Monocrystalline
125mm x 125mm **n-type**
180 microns
F 16% (2.4Wp) – R16% (2.4Wp)
100% bifaciality

Monocrystalline
156mm x 156mm **n-type**
160 microns
F 17% (4.1Wp) - R 17% (4.1Wp)
100% bifaciality

Problem

$ per kW/h Installed is Too High



- Balance of System & Labor Cost can be 50% of the Installed System
- Average of $8/Watt Installed PV System