

MARCH 2024



Transforming First Solar

Solar for a brighter future

PRESENTED TO
First Solar Team

PRESENTED BY
Plato Franco, XXX, XXX, XXX



Agenda

Background Information	4
<hr/>	
Financials	5
<hr/>	
Competition	8
<hr/>	
Market	15
<hr/>	
Vertical Integration // Solutions	19
<hr/>	
Long Term Goals	26
<hr/>	
Final Thoughts	31

Background Information

First Solar is a solar cell manufacturing firm based in America.

Case Racers has been hired by First Solar to help evaluate and provide guidance amidst internal and systematic challenges.



Assessment of First Solar's current financial situation

Investigation into domestic and Chinese competitive entrants

Evaluation of the current and future solar cell manufacturing market

Considerations in regards to downstream business acquisitions

Evaluation of current systems business and solidifying long term goals

FINANCIALS

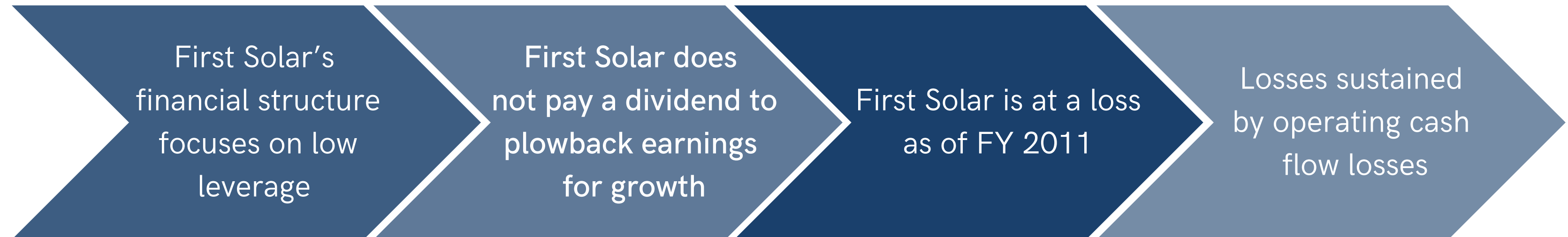
A look into key financial figures for First Solar





First Solar Financials

Known key areas of interest





First Solar Financials

Key areas to watch for in First Solar Financials

<i>*Dollar amounts are in '000</i>	FY '11	FY '10	YOY change
Revenue	\$2,766,207	\$2,563,515	+7.9%
COGS	\$1,794,456	\$1,378,669	+30.1%
Net Income	\$(39,493)	\$664,201	-105.9%
Capital Expenditures	\$149,938	\$291,507	-48.6%
Free Cash Flow	\$(183,401)	\$413,985	-144.3%



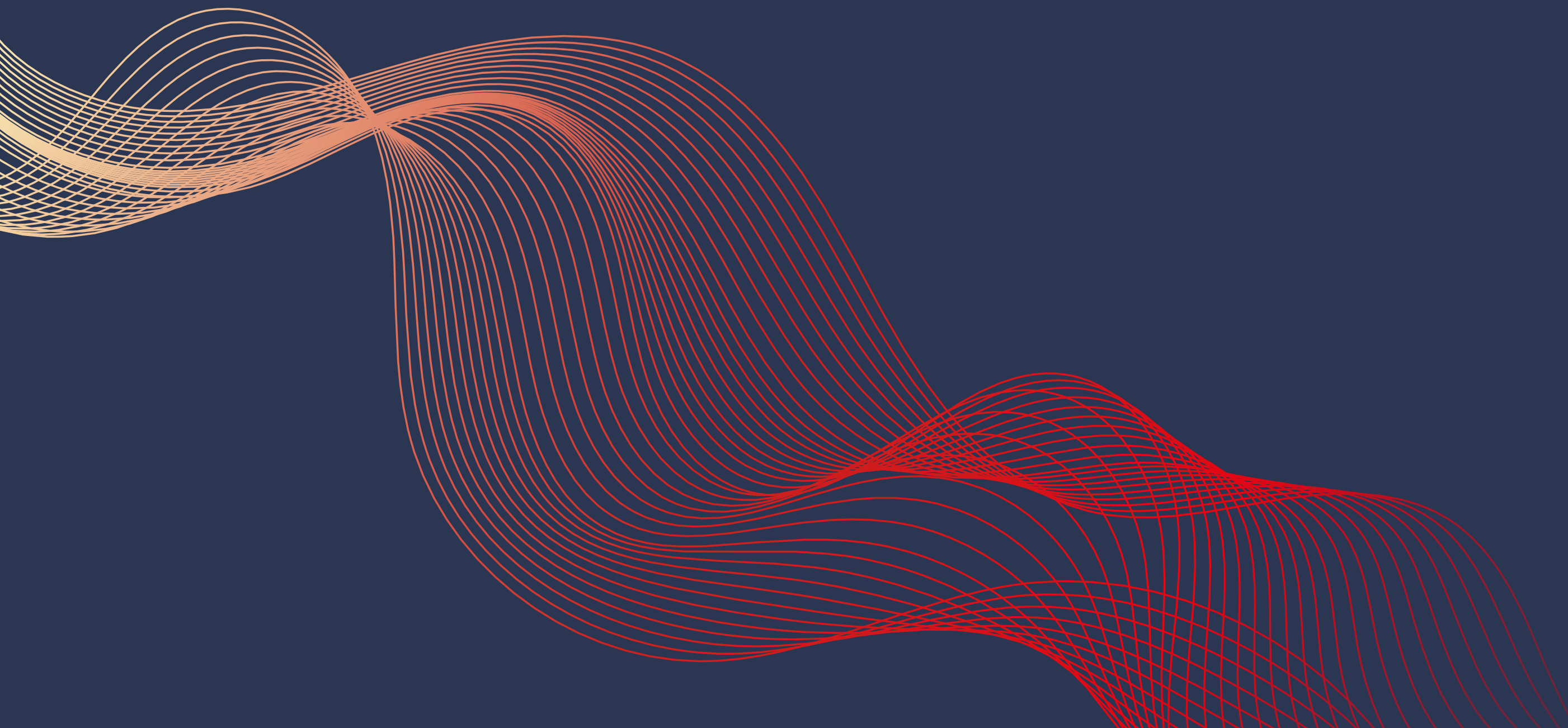
Financial Ratios

Key ratios to watch for in First Solar

Current Ratio	2.684
Quick Ratio	2.621
Leverage Ratio	0.369
Debt-Equity Ratio	0.231
Cash Coverage Ratio	68.287

COMPETITION

An evaluation into First Solar's market competitors





First Solar's Competition

First Solar's domestic and foreign competition

Domestic Competition

Market Segmentation

C-Si technology

Chinese Competition

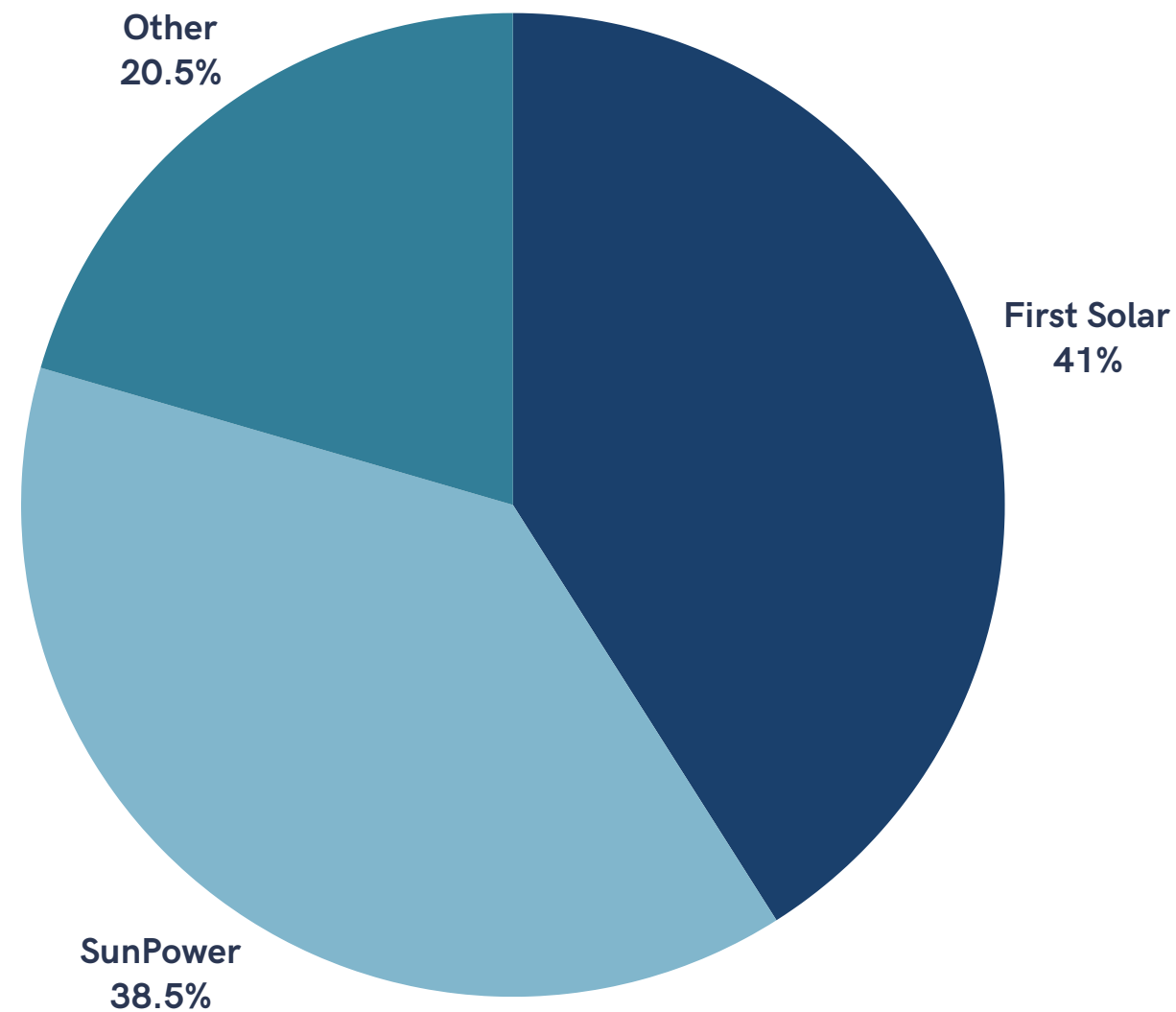
Gov. Subsidies

Anti-dumping

Sustained Loss

Domestic Competition

First Solar's domestic market



Current State Domestic Market Shares

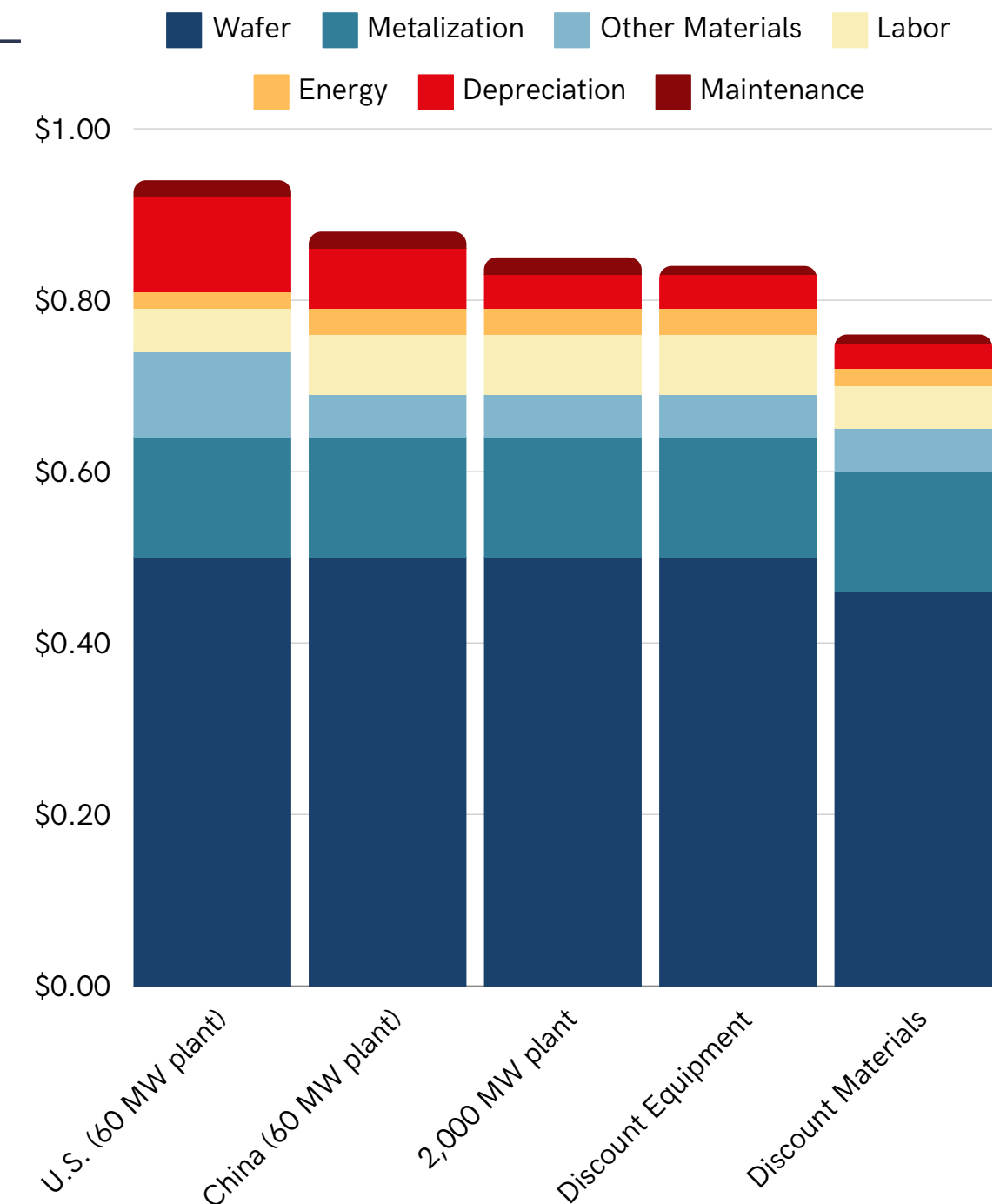
- U.S. solar installations experienced significant growth from 2009 to 2011, increasing participation in the global photovoltaic (PV) market
- First Solar and SunPower emerged as major players in the U.S. solar market, together controlling nearly 80% of the market in 2011
- Majority of U.S. competition including Chinese competition use crystalline-silicon technology

Cost Advantages

First Solar's cost advantages and disadvantages

Cost Analysis

- Cell wafer, manufacturing, labor costs, energy costs, and maintenance are higher for U.S. firms when compared to Chinese firms.
- Largest negative disparity in costs are seen in energy, material, labor, and maintenance
- Benefits in depreciation for U.S. manufacturing over Chinese manufacturing as depreciation is a tax deductible event



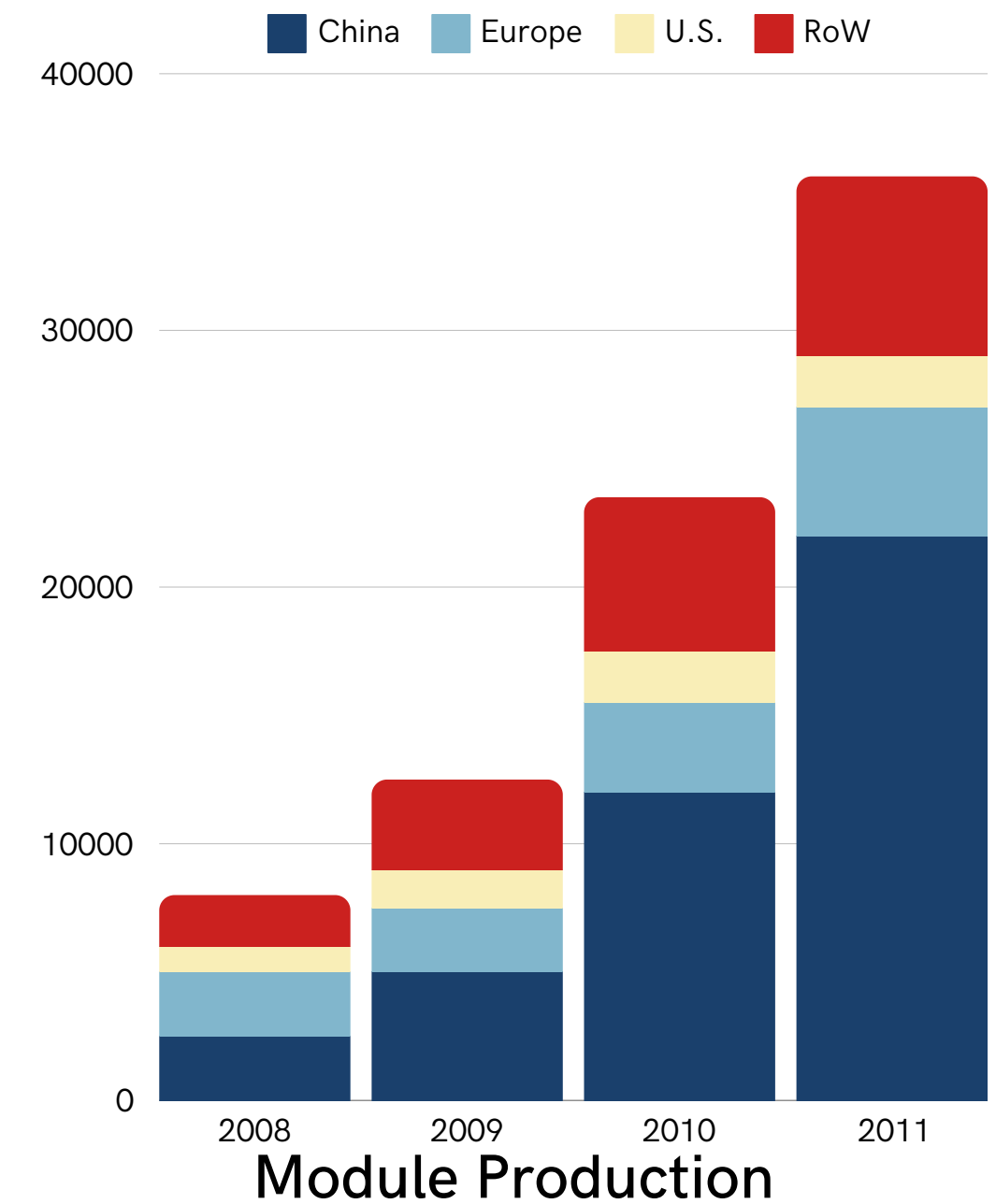
Chinese Competition

First Solar's foreign competition



Market Competitor Domination

- Over the years, China's solar market has expanded significantly.
- Chinese solar manufacturers benefit from significant government subsidies.
- The U.S. growth in the global market has been slow.
- Chinese companies have faced anti-dumping lawsuits in the past.
- The Chinese companies are all operating at a sustained loss.





Competitor Financials

Key areas to watch for in First Solar's Competitors FY 11'

<i>*Dollar amounts are in '000</i>	First Solar	Sunpower	Suntech Power	Yingli Green Energy
Revenue	\$2,766,207	\$2,312,494	\$3,146,600	\$2,332,094
COGS	\$1,794,456	\$2,084,290	\$2,760,000	\$1,942,879
Net Income	\$(39,493)	\$(603,859)	\$(1,018,000)	\$(518,880)
Capital Expenditures	\$149,938	\$(73,796)	\$204,800	\$331,933
Free Cash Flow	\$(183,401)	\$(47,300)	\$(111,500)	\$(277,779)



Competitor Financial Ratios

Key ratios to watch for in First Solar's Competitors FY 11'

	First Solar	Sunpower	Suntech Power	Yingli Green Energy
Current Ratio	2.684	1.974	0.800	0.984
Quick Ratio	2.621	1.601	0.602	0.777
Cash Ratio	0.622	0.618	0.189	0.323
Leverage Ratio	0.369	0.665	0.790	0.743
Debt-Equity Ratio	0.231	0.090	2.374	2.473



Competitor Financial Ratios Cont.

Key ratios to watch for in First Solar's Competitors FY 11'

	First Solar	Sunpower	Suntech Power	Yingli Green Energy
NWC Turnover	1.687	2.229	-6.018	-69.459
Profit Margin	-1.428%	-21.113%	-32.352%	-22.250%

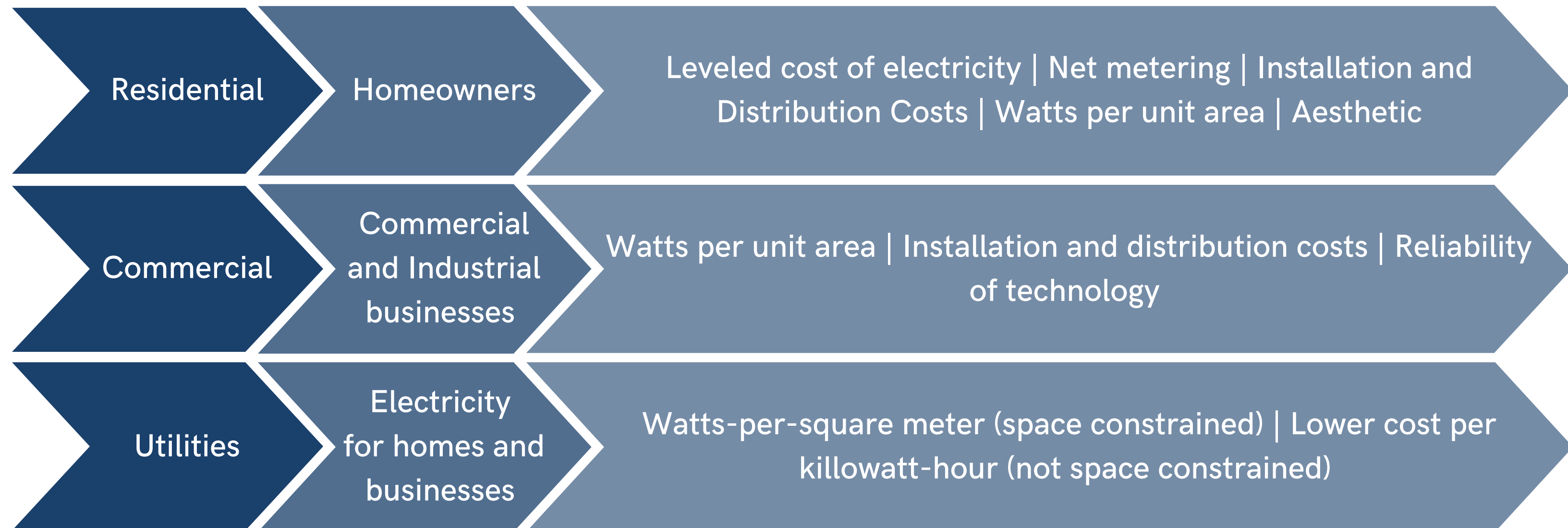
MARKET

An evaluation into the photovoltaic cell market



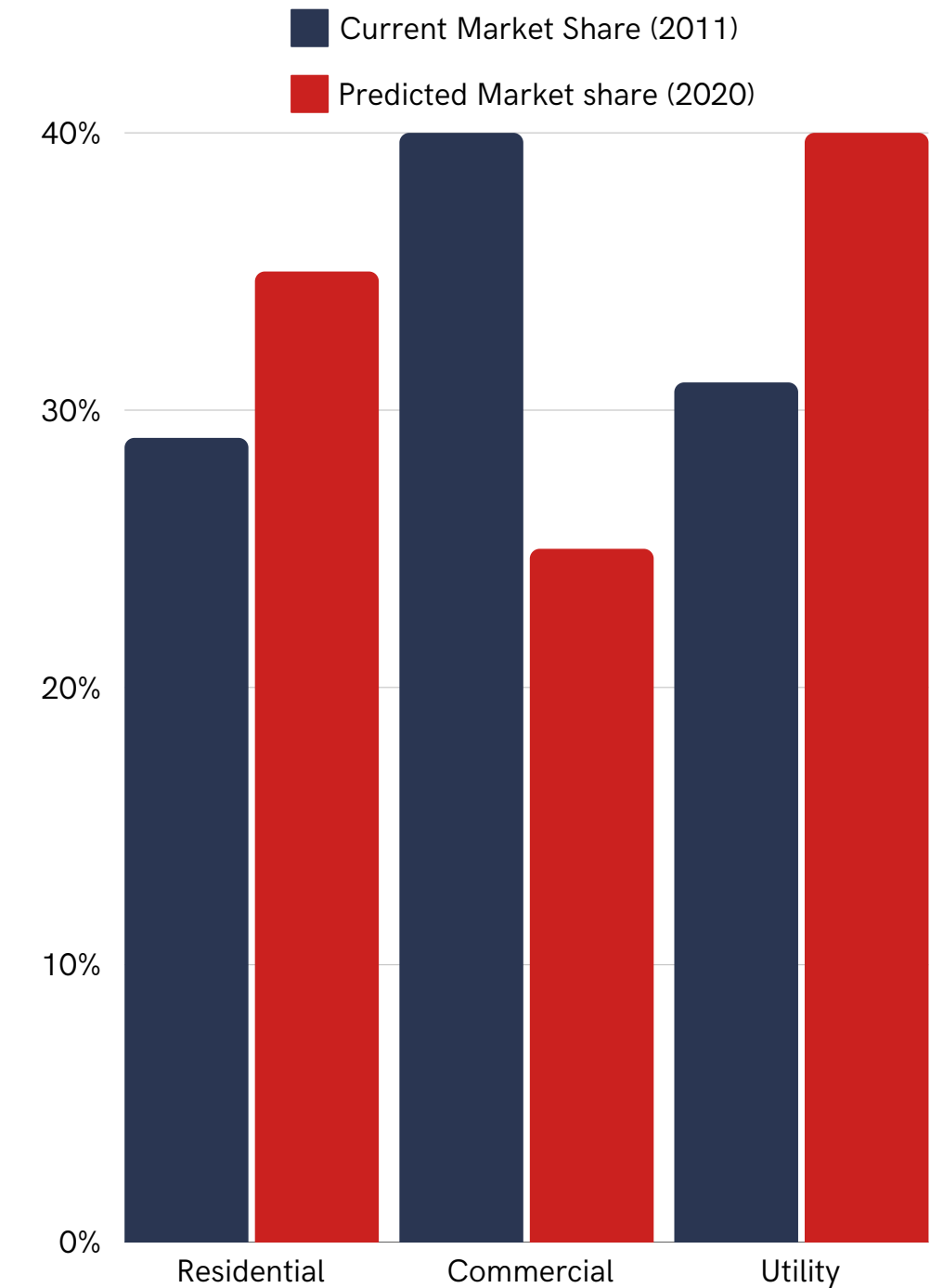
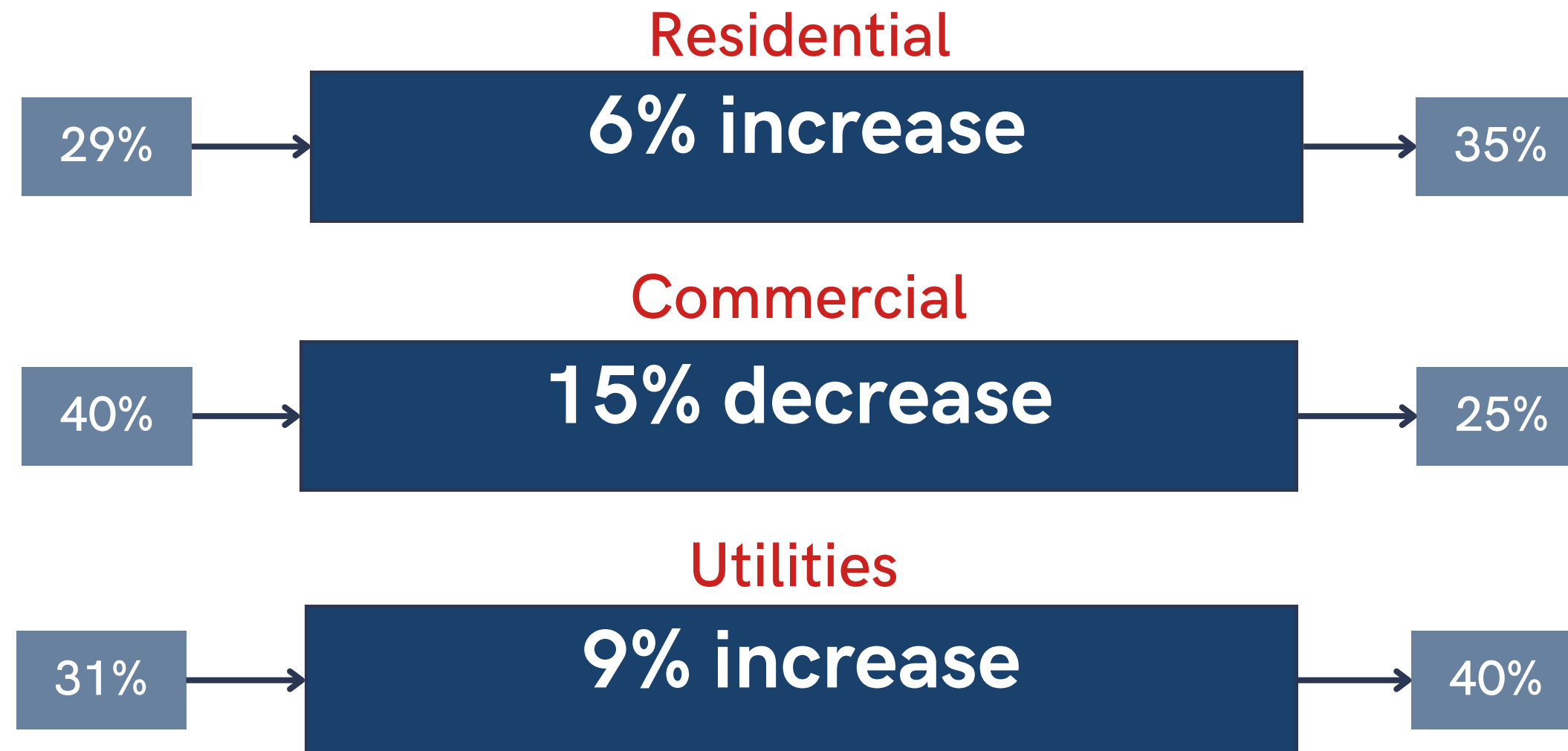
Current Market

Understanding the market segments



Market Future Growth

Current Market Shares

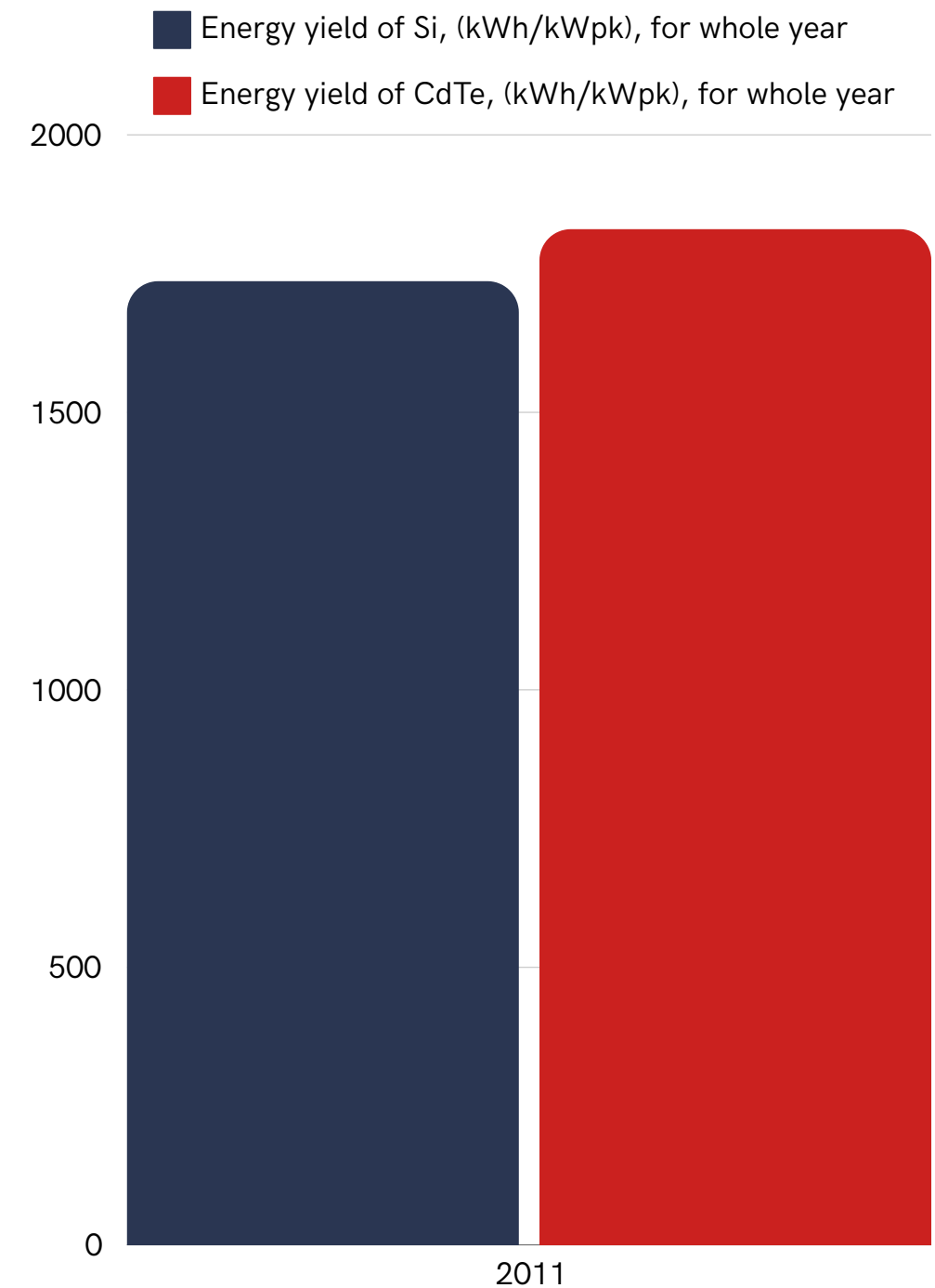


Net Metering Data

What's our advantage?

Cadmium Telluride edge vs. Crystalline-silicon

- Data recorded by institution of engineering and tech showed the annual yield of CSi vs cadmium
- This further highlights our competitive advantage compared to Csi which other companies utilizes



Market Advantages

How First Solar addresses segment concerns

Residential

- Net metering
- Aesthetics

Commercial

- Decrease in market share

Utilities

- Energy yield advantage
- Systems competitive advantage

VERTICAL INTEGRATION

An look into First Solar's previous and future
acquisitions



SOLUTIONS

Vertical Integration

Systems, marketing, and downstream strategies

Systems SG&A

Operations and Maintenance

Project Finance

Optimize Costs

Marketing Campaign

Excess Inventory Concerns

Segment Criteria

Monetary Benefits

Downstream Acquisition

Third Party Acquisition

Budget for Acquisition



Financial Standings

Current financial SG&A and efficiency standings

<i>*Dollar amounts are in millions</i>	First Solar	Sunpower	Suntech Power	Yingli Green Energy
SG&A	\$412,541	\$ 319,719	\$411,400	\$221,734
Revenue	\$2,766,207	\$2,312,494	\$3,146,600	\$2,332,094
SG&A-Expense Ratio	14.9%	13.8%	13.1%	9.7%
Days Sales in Inventory	96.793	69.568	68.305	79.724

SG&A - Solution

Determining SG&A cost reductions

Establish efficient workflows + Streamline operations

Operations and Maintenance

Project Finance

Utilize Remote Monitoring

Implement Risk Management

Automate Reporting Processes

Streamline Due Dilligence

Centralize Inventory Management

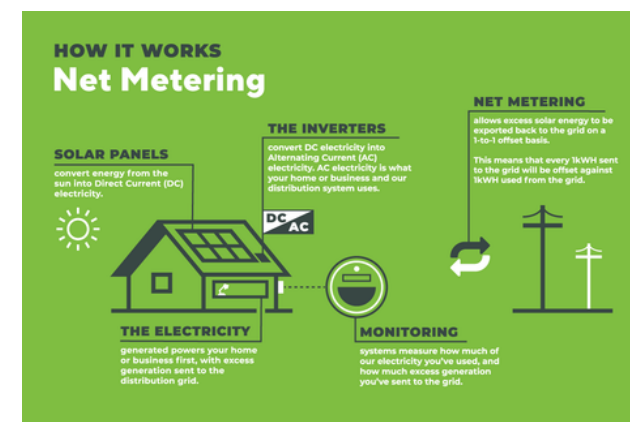
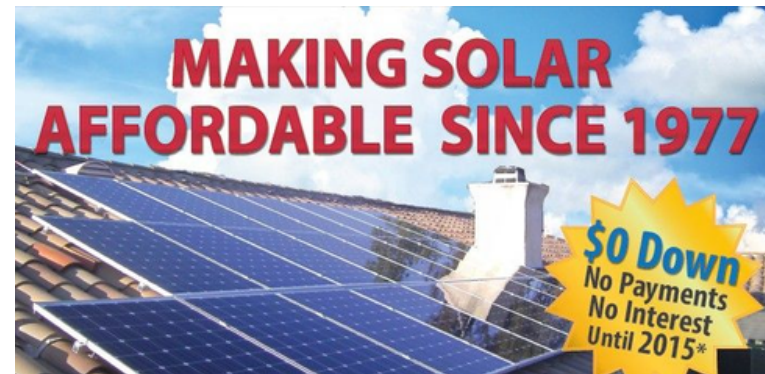
Edit Capital Structure

Standardize Contractual Advice

Marketing Campaign - Solution

Targeting market segments

Elements of Solar Ads



Our Approach

“SEE YOUR CREDITS”



SolarCity Acquisition - Solution

Acquisition information

- Founded in 2006
- Focused in residential and commercial solar installations
- Utilize PPAs(power purchase agreement)
- Partnered with large companies
- Inventory solution synergies

NI	16M
Approx. Value*	92M
NPV** Break Even	6yr

*Approximate value derived from market capitalization in 2011

**NPV estimated growth rate at 5% and discount rate at 9%





Budget For Acquisition

Budgetary slack justifications

<i>*Dollar amounts are in '000</i>	First Solar	Sunpower	Suntech Power	Yingli Green Energy
Total Debt	\$840,096	\$1,391,593	\$2,262,000	\$2,771,336
Leverage Ratio	0.369	0.665	0.790	0.743
Interest Earned Ratio	51.755	0.814	0.803	1.589
Cash Coverage Ratio	68.301	2.405	1.698	2.909

Budget for Acquisition Cont.

Levered budget and target acquisition price

1.2B

Budget for par

Leverage budget to reach par with industry

92M

Target acquisition

Estimated purchase price of SolarCity*

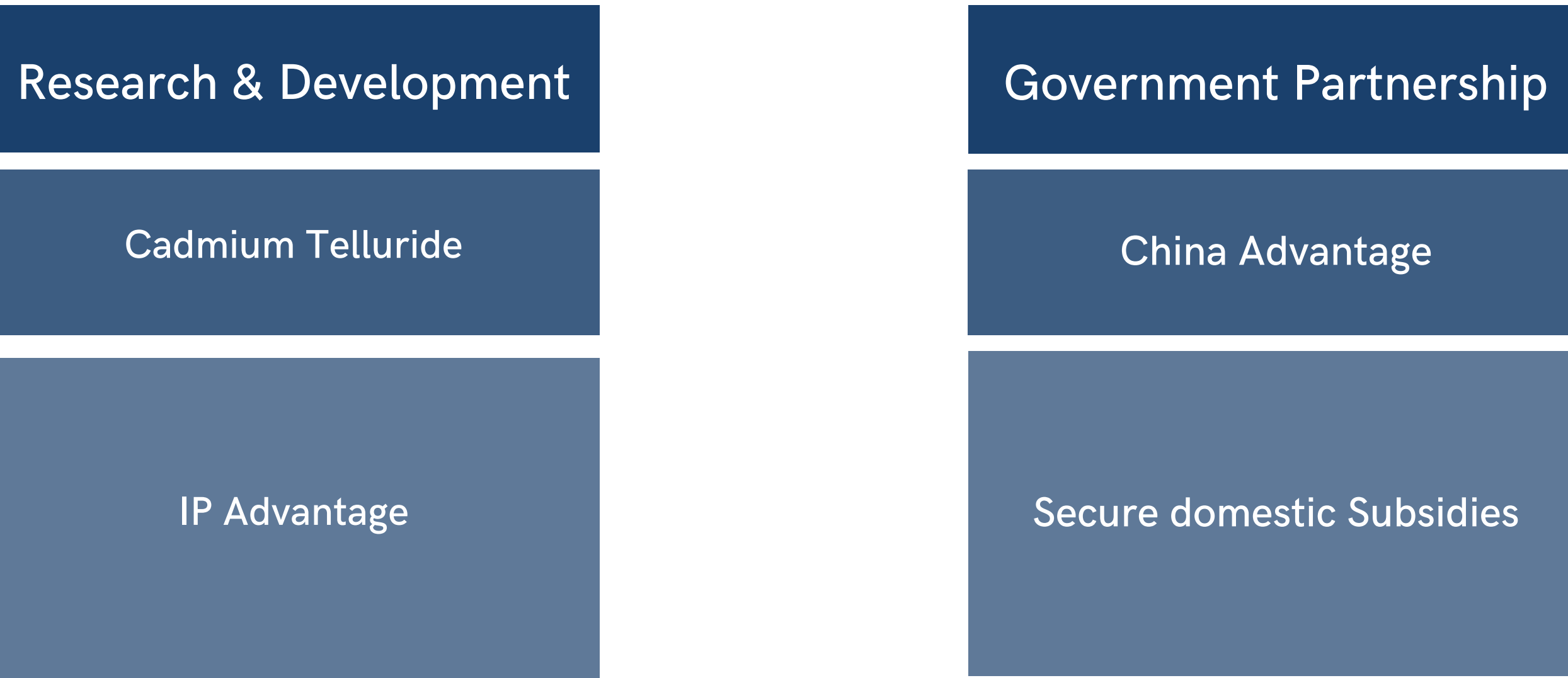
LONG TERM GOALS

Aligning First Solar's long term goals for future growth
and success



Long Term Goals

Long term outlook and strategies





Research & Development Cont.

Par R&D expenses and ratios

<i>*Dollar amounts are in '000</i>	First Solar	Sunpower	Suntech Power	Yingli Green Energy
R&D Expense	\$140,523	\$57,775	\$38,600	\$45,267
Revenue	\$2,766,207	\$2,312,494	\$3,146,600	\$2,332,094
R&D Expense Ratio	0.051	0.025	0.012	0.019

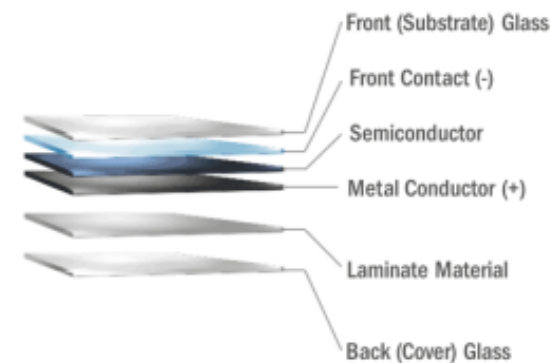
Research & Development

A look into First Solar's R&D

IP Advantage

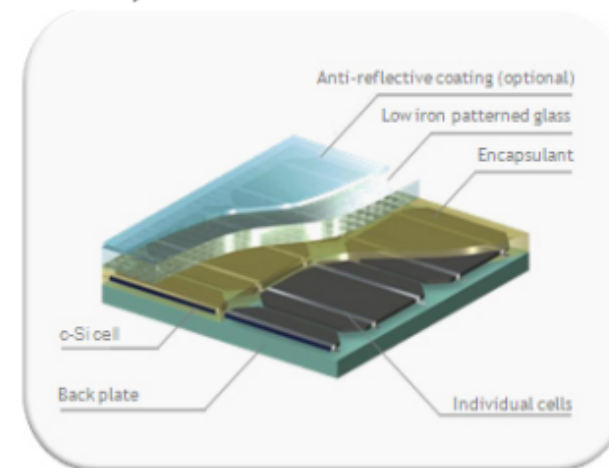
CdTe is an IP of FirstSolar, providing a competitive edge. Acquiring IP rights in comparable technologies could enhance this benefit.

Thin film



First Solar's Series 4 CdTe Thin Film Module

Crystalline Silicon



Emphasis on CdTe

This technology's utility should be further explored through reallocation of funds under R&D.



Government Partnership

Leveraging our majority market share

Competition

The anti-dumping case brought forth by ITC indicates the government's concern about the Chinese competition

Market Share

Given First Solar's market share in the U.S., the company can secure more funding through government subsidies

Strategy

The administration has provided aid to other solar companies, First Solar should consider lobbying and working with the administration

Case Example

Similar Approach

Solyndra



- Uses a similar thin solar cell technology
- Received \$535M in aid from the government in 2009
- Similar deals could allow First Solar to be more competitive with Chinese manufactures

Long Term Goals

Long term outlook and strategies

Research & Development

Cadmium Telluride

R&D Expenditures

Market Expansion

Assess Alternative Market Synergies

Set up Investigation and Expansion Into New Markets

Government Partnership

China Advantage

Secure domestic Subsidies

Alternative Markets

A look into further markets

Alternative Markets

Investigate alternative markets for expansion: Africa, Middle East, Americas for potential residential expansions

First Mover Advantage

Moving into residential early in new markets gives us a first mover advantage, but we also generate synergies with systems business

Expansion

Using Solar City and the marketing campaign, we can support the systems business and residential startup in new markets

Final Thoughts

Aligning First Solar's long term goals for future growth and success





Summary of Strategies

Aligning internal, external, and market challenges and opportunities.

Systematic and internal issues have slowed First Solar's growth; with our guidance the firm can return to being a market leader

Focus on Residential and Utility markets

Restructure SG&A in Systems Business

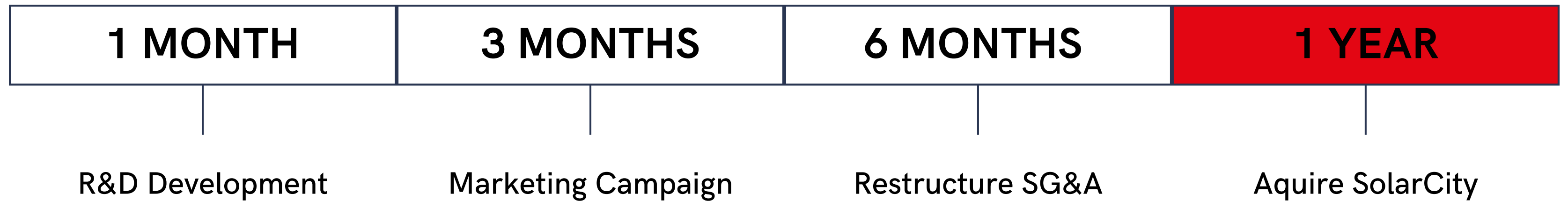
Launch marketing campaign

Purchase SolarCity to develop direct to consumers

Invest further into Research & Development

Process Timeline

Tracking our solutions



Q&A