Executive Summary

First Solar will position itself as the leader in PV solar modules and systems worldwide.

**Key Forecasted Factors**
- Decreasing cost of production
- Demand from commercial & utilities sector
- Government influence

**Prioritized Markets in the Next 5 Years**
- Chile
- Mexico
- India

**Impact**
- $285M profit over the next 5 years
- Over 350 MW
- Allows First Solar to gain market share in new prioritized markets

First Solar's Competitive Advantage

- Vertical Integration
- Steady Profit Margins
- R&D

- End-to-end services and production for solar PV
- Profit margins have remained steady even through turmoil
- First Solar is a market leader in innovation

First Solar should take advantage of decreasing technology costs to gain market share in lower margin countries.

Financial Health

<table>
<thead>
<tr>
<th>Year</th>
<th>Current Ratio</th>
<th>Debt/Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3.19</td>
<td>0.36</td>
</tr>
<tr>
<td>2013</td>
<td>1.27</td>
<td>0.51</td>
</tr>
<tr>
<td>2014</td>
<td>0.34</td>
<td>0.34</td>
</tr>
</tbody>
</table>

**Industry Competitor Average: Suntech, Sunpower, SunEdison**

- Current Ratio: 6%
- Sufficient resources to finance expansion
- Opportunity to gain market share

Forces

1. Decreasing Cost of Production
2. Demand from Commercial & Utilities Sector
3. Government Influence

These forces impact First Solar's future expansion plans into other regions.

Decreasing Cost of Production

- Lower price of raw materials
- Improving technology

Lower cost of production

First Solar can take advantage of the growing popularity of Solar PV as the cost of installing solar panels is decreasing.
**Chile - Strategy**

- Utilities
- Growing Market Size
- Diversifying Energy Mix

1) Essential
2) Kinetic
3) Kinetic Projects

The Atacama desert provides the best investment opportunities for Solar PV.

**Chile - Financials**

First 3 Years

<table>
<thead>
<tr>
<th>Projects</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects</td>
<td>0</td>
<td>156</td>
<td>200</td>
<td>250</td>
<td>200</td>
</tr>
</tbody>
</table>

Net Income (USD 000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$30,100</td>
<td>$37,400</td>
<td>$49,750</td>
<td>$61,200</td>
<td>$72,800</td>
</tr>
</tbody>
</table>

No additional financing needed

$100M net profit over 5 years

**Chile - Risk & Mitigation**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Likelihood</th>
<th>Impact</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract cannot be gained with existing company</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Agree to joint venture with a tech company to go into Chile</td>
</tr>
<tr>
<td>Additional projects are not given to First Solar</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Supply cells and modules to other companies to ensure continual entry into the market</td>
</tr>
</tbody>
</table>

Chile is one of the largest markets for Solar PV by entering First Solar will gain access to one of the best spots for Solar Energy production.

**Mexico - Overview**

<table>
<thead>
<tr>
<th>Solar PV Production Target</th>
<th>6000 MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Production</td>
<td>1124 MW</td>
</tr>
</tbody>
</table>

Suitable Geography

Western Mexico

Ease of Doing Business

High

15th in the world

Cost of Electricity

$122.50

$118.50 per MWh (USD)

Current Solar PV Projects

2 (total 360MW)

Government

Yes

Sustainable Energy

Positive outlook for energy reforms

Market

Federally-funded

**Mexico - Strategy**

- Commercial
- Operational Efficiency
- Electricity Climate

Growing manufacturing industries in Mexico

Businesses = 85% of total Electricity Sales

- PV Power for Commercial Manufacturers
- Build strategic partnerships with Govt

- Secure 2013 acquired pipeline projects
- Help Govt meet employment goals

**Mexico Target Regions**

- Industries
  - Aerospace
  - Automotive
  - Metals
  - Companies
  - GE
  - Boeing
  - Rolls Royce
  - Continental
  - Automotive Systems
Implementation Timeline – Overview

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Chile</td>
<td>✫</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td></td>
<td>✫</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>✫</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* When ground breaking occurs

Financial Impact

<table>
<thead>
<tr>
<th>2015</th>
<th>2015-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>$ 300M</td>
</tr>
<tr>
<td>Mexico</td>
<td>$ 20.5M</td>
</tr>
<tr>
<td>India</td>
<td>$ 18 M</td>
</tr>
</tbody>
</table>

Total: $ 78.5 M

ROA 4% ➔ 8%

Summary

First Solar will position itself as the leader in PV solar modules and systems worldwide.

- **Key Forecasted Factors**
  - Decreasing Cost of Production
  - Demand from Commercial & Utilities Sector
  - Government Influence

- **Prioritized Markets**
  - Chile
  - Mexico
  - India

- **Impact**
  - Allows First Solar to gain market share in new prioritized markets
  - $ 28 M Profit over the next 5 years

SWOT Analysis

**Strengths**
- Geographical Reach
- Vertically integrated Capability
- Technological Expertise: Low Cost Production

**Opportunities**
- New Product Launches
- Positive Outlook for Solar Market
- New Acquisitions

**Weaknesses**
- Dependence on few Customers

**Threats**
- Infringement of Intellectual Property
- Intense Competitive Landscape
- Procurement of Raw Materials

Porter’s Five Forces for the Solar PV Market

- **New Entrants:**
  - Barriers to entry could be very high to enter production
  - Gaining the vertical is not difficult

- **Suppliers:**
  - High
  - Government highly influences bottom line

- **Rivals:**
  - High
  - Market is not fully matured
  - Several competitors along the value chain

- **Substitutes:**
  - High

- **Buyers:**
  - Moderate
  - Market is not fully matured
  - Other sources of energy could be options
**Mission Statement**

To create enduring value by enabling a world powered by clean, affordable solar electricity.

1. Reduce solar electricity costs to sustain levels through technology development, operational excellence, and scale
2. Use price, adaptive business models, and partnerships to expand markets
3. Migrate from subsidized markets to non-subsidized markets by leveraging economies of scale—become "subsidy independent"
4. Own and develop the technologies necessary to be the low-cost provider of solar electricity
5. Maintain financial discipline that assures superior returns on invested capital
6. Reduce dependence on scarce natural resources and curtail greenhouse gas emissions to improve our environment

**GE Relations**

*GE buying First Solar modules in all wind/solar installations*
- (24 GW of renewable power projects)
- GE uses close space submersion (CSS) process for its Cells, while First Solar uses a vapor transport deposition (VTD) process

*Partnership Details*
- GE now a top investor with 1.25m shares of common stock
- Partnering on inverters and basic research

*GE Manufacturing*
- GE Aviation Systems and Embracer manufacturing facility in Nogales, Sonora, Mexico

**Competitors**

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SunPower</td>
<td>USA</td>
<td>Working with First Solar to takeover YALC</td>
</tr>
<tr>
<td>SolarWorld</td>
<td>Germany</td>
<td>Major competitor with First Solar in the United States</td>
</tr>
<tr>
<td>Sharp</td>
<td>Japan</td>
<td>2nd largest after First Solar to produce largest panels</td>
</tr>
<tr>
<td>Solar Frontier</td>
<td>Japan</td>
<td>Market leader in Japan</td>
</tr>
<tr>
<td>SunTech</td>
<td>China/USA</td>
<td>5% of its sale in main Europe - Germany &amp; Italy</td>
</tr>
<tr>
<td>Stammak</td>
<td>USA</td>
<td>In several markets that First Solar wants to enter</td>
</tr>
</tbody>
</table>

**Risks Forecasted for 2015**

**Increased supply of PV modules could cause supply to dwarf demand**
- Periods of structural imbalance (supply-demand) or vice versa are projected to continue to place downward pressure on market prices
- Industry average sales per watt (ASP) is declining as companies sell modules worldwide

**High Competition in systems to place downward pressure on profit margins**
- All PV module production costs decrease, solar electricity becomes more affordable, and new companies will begin pushing for new projects & PPA
- If competition rises and margins take a bit, maintaining multiple new systems projects simultaneously will be difficult

**EY RECAI Index**

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
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<tr>
<td>China</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

**India expansion is hindered by policy**

- US government is pushing to free up an additional 375MW of module production under the Indian National Solar Mission Batch II Phase II
**Energy Demand by Region & Forecast**

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**Solar Trends for 2015 by IHS**

- Grid connected energy storage installations to triple in 2015.
- PV systems and storage installations of 77 TWh.
- Growth in residential, commercial, and utility sectors.
- PV energy storage systems are emerging in the electric utility sector.
- ERCOT & IAP dominate the residential market.
- USA: Peak service charges affecting commercial and residential.

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**Decision Criteria**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Chile</th>
<th>China</th>
<th>India</th>
<th>Mexico</th>
<th>Spain</th>
<th>Sweden</th>
<th>USA</th>
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</thead>
<tbody>
<tr>
<td>Energy project readiness</td>
<td>100</td>
<td>105</td>
<td>92</td>
<td>82.5</td>
<td>78.5</td>
<td>73.3</td>
<td>66.5</td>
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<td>Energy efficiency</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>5</td>
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<td>Environmental impact</td>
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<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
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<tr>
<td>Social &amp; Political stability</td>
<td>40</td>
<td>35</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Economic viability</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Cost of capital</td>
<td>70</td>
<td>65</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
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<tr>
<td>Commercial and public support</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
<td>60</td>
<td>55</td>
<td>50</td>
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<td>Access to financing</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
<td>60</td>
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<td>Infrastructure development</td>
<td>95</td>
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<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
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<tr>
<td>Fit in the overall strategy</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
<td>60</td>
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<td>Government initiative</td>
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<td>90</td>
<td>85</td>
<td>80</td>
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<td>Project availability</td>
<td>100</td>
<td>95</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
</tr>
</tbody>
</table>

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**USA**

- **Case of Doing Business**
  - Already a key market.
  - The federal government does not have a target.
  - Each state has its own target.
  - Growth in the future is limited.
  - Installation costs in the US are very high ($4.50/ w).

The United States will always be a market for First Solar as certain states still need...
China
Ease of Doing Business | 90
High competition exists in this market.

- Several Chinese companies already exist in the market.
- Difficult to enter the market unless it is a pre-existing company or Chinese.
- Should continue to monitor the competitive environment.
- First Solar has an office set up in Beijing.
- Over 400 Solar PV companies in China already.

Favoritism towards Chinese companies exist causing high entry barriers for non-Chinese firms.

South Africa
Ease of Doing Business | 43
Leading market in Africa.

- Currently Solar Energy does not exist in this market.
- Price of other energy sources is lower.
- Entry is to this market is late as most projects were approved in 2014.
- Business development VP was hired in 2013.

South Africa is driven to consume more energy but the growth is Solar Energy. Projects have already been passed.

Australia
Ease of Doing Business | 10
Mature Market.

- Mature Market.
- Demand is limited – Max 600 MW production.
- Large projects have already been completed or in installation phase.
- Targets are set but they do not look like they will be met.

Australia is a mature market who is wanting to primarily grow its coal industry.

Chile Fundamental Considerations

- Value Index: 7.92/10
- Global Rank: 14/12
- Regional Rank: 1/14

- Water is scarce but necessary for mines to process copper. Using desalinated water can triple water costs.
- More incentive to lower energy costs via solar.
- Promotes infrastructure investments & reduces regulatory risk for electric companies.
- Generation firms have not developed on par with economy – lack of power supply in the country.
- Droughts hampering use of hydropower dams.
- Provide sustainable & renewable energy via solar.
- 20-40% of operating costs come as a result of energy costs.

Chile - Notables

- 143 MW Solar Power Plant.
- Located 30kM north of Copiapo.
- Largest solar plant in region.

- 15 potential mines near Copiapo.
- High need for renewable energy sources to offset fossil fuels and decrease costs.

- Ascendant, Chuquicamata, Kinross-owned mines in Atacama region.
- Attend to renewables & Mining Summit and Exhibition.
- IV with Solar Reserve to address need for efficient energy storage systems so that mines operate 24/7.
Chile - Utilities

- 4 primary electricity system providers: SIC, SING, Aysen, Magallanes
  - SIC
    - Provides 78.5% of nation's power
    - Centrally located
    - Key Financials:
      - Capacity provided: 14,923 MW
      - Installed solar capacity: 149 MW (1%)
      - Proposed MW growth: 277.00 MW (18.6%)
      - Proposed solar growth: 858.70 MW (11.1%)
      - Peak load solar capacity: 1067.8 MW (5.7%)
      - Avg. market price: $93.8/MWh
  - SING
    - Provides 20.7% of nation's power - Suffer from overcapacity
    - Located in the north - Mining industry
    - Key Financials:
      - Capacity provided: 3,943 MW
      - Installed solar capacity: 788 MW (2%)
      - Proposed MW growth: 2,600 MW (13.5%)
      - Proposed solar growth: 804.3 MW (24.5%)
      - Avg. market price: $93.3/MWh

Chile Utilities Information

Future Construction plans for both SING & SIC

Chile - Projects

- New Projects
  - 140 projects under construction
  - Solar projects: 94 (67%)
  - Power projects: 31 (22%)
- Financing Cost in USD
  - $3.32 million
  - $21.4 million (91%)
  - $1.14 million (7%)

Chile Targets

- Klimax projects can lead to significant long term contracts with a major player in the mining sector

Implementation Timeline - Chile

<table>
<thead>
<tr>
<th>Years</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>1st Q</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2nd Q</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
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<tr>
<td>3rd Q</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4th Q</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

- Site selection & Mine development
- Site expansion
- Pre-construction activities
- Construction
- Equipment installation & testing
- Operation & maintenance
Mexico Solar Industry

- Goals
  - 35% of energy be renewable by 2026
- Politics
  - Strict regulations for energy sector - Utilities are monopolized by the gov't
  - Released 50 permits in last 10 months
- Current Events
  - Mexico Energy Reforms: making it easier for private investment
  - Waiting for laws to loosen up further
- Situation
  - In reform, but gov't open to FDI
  - Waited for laws to be lesser
  - Develop relationship with Mexican gov't
  - Must seek out partnership or JV with a utilities provider

Mexico G20 Employment Goals 2014

- Informal economy to formal economy
  - Informal employment rate in Mexico reaches 58.8% well above the avg. for Latin America countries (48%)
- Solution
  - Promoting job creation in the formal job sector
  - Work to promote formal jobs with the govt
- Labour market access for youth
  - Only 14% of Mexican firms had a connection with universities for recruitment and promotion of job opportunities among students
- Solution
  - Mixed training strategies: Implement internship and youth hiring programs with local universities
- Low female labour force
  - Labour force participation for women: 43%, men: 77%
- Solution
  - Implement equal opportunity employment

Nogales, Sonora, Mexico

- Plants
  - 110 manufacturing plants in the city
    - 23 belong to publicly traded companies
- Industries
  - Automotive industries:
    - Aircraft industries
- Companies
  - GE Aerospace
  - Continental Automotive Systems

Rooftop Commercial Solar Option

- 8 Acres
- Generates: 2.4 GWh
- 1.42MWac
- 1.16MWac
- Total costs:

Nogales Industrial Project

- 30 Acres
- Estimated costs: $2,105 / Acre
- Total costs:
- Capacity: 5.33MWdc
- Generation: 9.70GWh / year
- Approximate needs of 1 Million sq. ft. Warehouse
  - Assume 0.0186 kWh consumption per sq. ft.
  - Require 16GWh per year
**Implementation Timeline – Mexico**

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<tbody>
<tr>
<td>Build energy partnering w/ govt</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Contact key manufacturers; assess solar demand from surrounding companies</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>See regulations</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>System design</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Ground breaking</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>2</td>
<td>3</td>
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<td>Construction</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Equipment Installation</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Roofing &amp; Assessment</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Maintenance</td>
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<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Factory Replication Timeline**

- Factory Replication Process
  - Start location
  - Site Regulations
  - Site Design
  - Order trailers
  - Equipment, materials
  - Assembly
  - Start production
  - Production
  - Commissioning

- Established sites can typically be built out in 13 to 14 months
- Greenfield sites require additional work and time
- Negotiating sites and building site can shorten overall project time

**Indian Solar Industry**

- **Goals**
  - 100GW of solar energy by 2022
- **Politics**
  - Prime Minister Narendra Modi: engineering first solar indicative
  - High bureaucracy: Conversions leases business to provide highest barriers to entry
- **Economics**
  - US offered backing on $60 billion needed to attain 2022 goal
- **Activities**
  - JV on 2 power plants (500 MW total) in Rajasthan with: - Adani Energy Solar Power Pvt Ltd: $16.7B-9.5GW startup - Mahindra SolarOne Pvt Ltd: part of conglomerate - Supplying 586,000 solar modules and components

**Bidding for Indian Projects**

- India issued bidding guidelines for 3,000 megawatts of grid-connected solar power projects as part of the country's National Solar Mission
  1. Must bid for minimum 100 MW on a fixed 25-year levelized tariff (to be selected)
  2. State utilities will buy the power

- The ministry also issued draft guidelines for installation of an additional 2,000 megawatts of grid-connected photovoltaic power
  - &
  - Rajasthan district of Madhya Pradesh
  - Invitation to tender for 7.5 GW project
  - Currently inviting tenders from developers

**NTPC & Tata Power**

- **NTPC**
  - Largest power company in India
  - Most ambitious target of 14 GW by 2017
    - Already achieved 5 GW
  - 2 major ongoing projects for solar currently
    - Jhajjar is an issue, consider over-runs like the Solar River project that is打造in doing it now, issues with oversizing solar systems where agriculture isn't going to change in the real estate cost
    - Only 110 MW of solar power currently

- **Tata Power**
  - Electric utility company based in Mumbai
  - Capacity of 8.5 GW – 2nd largest private power producer
    - Smaller than NTGC
  - Operate similar business model to First Solar (vertically integration of services)

**India – Benefits with NTGC**

- **Strengths**
  - Largest energy player in India
  - Preparing growth strategies
  - Distribution Network
  - Expanding internationally
  - Open to partnerships & JaVs
  - Strong Gov't relations
  - Unsurpassed level of solar expertise
  - Weak stock value makes funding difficult
  - Underserved energy mix

- **Weaknesses**
  - Need partnerships & JaVs to enter Indian market
  - Lack Government relations

**First Solar**

- **Strengths**
  - Top solar PV company worldwide
  - High module efficiency
  - Financially healthy
  - Provide full value chain of products & services

- **Weaknesses**
  - Unsurpassed level of solar expertise
**Chile – Projected Net Income**

Net Income

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>330,300</td>
<td>$</td>
<td>$67,400</td>
<td>$932,590</td>
<td>$1,113,900</td>
</tr>
</tbody>
</table>

5 year NPV

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>13,510.65</td>
<td>$</td>
<td>$25,041.30</td>
<td>$90,618.59</td>
<td>$63,690.97</td>
</tr>
</tbody>
</table>

Discount Rate: 10%

**Mexico – Projected Net Income**

Net Income (100's USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>559</td>
<td>$1,699</td>
<td>$7,636</td>
<td>$16,690</td>
<td></td>
</tr>
</tbody>
</table>

5 year NPV

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>246,599.40</td>
<td>$</td>
<td>$25,041.30</td>
<td>$79,597.87</td>
<td>$74,429.17</td>
</tr>
</tbody>
</table>

Discount Rate: 10%

**Decreasing Cost of Modules and Systems**

<table>
<thead>
<tr>
<th>Cost per Watt</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>0.80</td>
<td>0.79</td>
<td>0.79</td>
<td>0.79</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Module cost $0.48 $0.44 $0.40 $0.60 $0.80

Instal Cost (W) $3.28 $1.14 $0.95 $0.95

**India**

<table>
<thead>
<tr>
<th>Cost of Project</th>
<th>148,666,667</th>
<th>59,386,667</th>
<th>30,833,333</th>
<th>22,066,667</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>151 MW</td>
<td>50 MW</td>
<td>7 MW</td>
<td>9 MW</td>
</tr>
<tr>
<td>Cost per Watt</td>
<td>$0.97</td>
<td>$1.38</td>
<td>$1.55</td>
<td>$1.93</td>
</tr>
<tr>
<td>Avg Total Cost</td>
<td>$1.20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROA Projection**

<table>
<thead>
<tr>
<th>Additional Revenue</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>26,509.37</td>
<td>62,704.02</td>
<td>113,904.61</td>
<td>150,901.83</td>
<td></td>
</tr>
</tbody>
</table>

Consolidated Revenue $404,866,34 | $412,963.40 | $412,963.40 | $409,668.80 | $418,278.54 |

Growth $4,868,327.79 | $4,831,830.78 | $7,116,086.44 | $7,273,789.03 | $7,424,327.01 |

ROA | 3% | 5% | 7% | 9% | 11% |

**Potential Breakthrough Technologies**

- CPV
  - High efficiency PV modules
  - Currently costs are significantly higher

- Energy Storage
  - Huge future potential for renewable energy sources
  - High manufacturing cost, but progress, both in efficiency and cost,

- Solar Hybrid Systems
  - Solar + Hydro and Solar + Wind
  - New technology, high cost to research and manufacture
  - Up to 10 years before possible commercialisation