

BHARAT FORGE LIMITED (BFL)

This report proposes the diversification strategy for Bharat Forge Ltd. to enter into India's solar power sector.

1st Position – ***Metamorphosis competition***

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Tejas is proud to present the award-winning articles of its flagship whitepaper competition ***Metamorphosis***, conducted during IIMB's 3-day business fest ***Vista*** (2015). Tejas congratulates the winning teams for their outstanding performance and thanks all participants for their dedicated efforts.

The *Metamorphosis* challenge: The vision of '*Make In India*' is holistic development in infrastructure, manufacturing, renewable energy, and other key sectors. Large conglomerates are in a position to provide strategic impetus to drive domestic growth, as they have huge capital outlay and managerial talent. At '***Metamorphosis***', Tejas challenges participants to develop expansion and diversification strategies for a specific company, by capitalizing on *Make in India* initiatives. The strategy should consider regulatory framework, government involvement and subsidies, resource outlay, and potential challenges in implementation.

Disclaimer: These articles are participant entries submitted in the ***Metamorphosis*** competition. These have not been edited by Tejas, nor does Tejas endorse the views expressed in these articles. All articles have been published with the express permission of the participants.

Introduction and Company Analysis

Bharat Forge limited (BFL), the Pune based Indian multinational and subsidiary of the US \$2.5 billion Kalyani Group¹, is the world's second biggest metal forging company with a transcontinental presence across India Germany, Sweden and China, and catering to geographically dispersed marquee customers. With a mark cap of INR 23,773 Cr², BFL is a technology driven leader serving a multitude of sectors across automobile, power, oil and gas, rail & mine, aerospace, construction & mining. BFL is spread across the country with manufacturing facilities in Pune, Satara, Jalgaon in Maharashtra.³

BFL has a clear vision, aiming to establish itself as the most prominent engineering company with diverse complimentary businesses in critical verticals which lead India's growth. Leveraging its decade's worth of experiential knowledge and experience, BFL is well into its transformational journey – from an automotive component supplier to providing end to end solutions from product conceptualization, design, engineering, manufacturing, and testing in high growth sectors such as oil and gas, power, locomotive and aerospace. The commitment fostered by BFL is starkly clear- deliver innovation driven value addition to customers, associates and business.

Envisaging a growth of 7-7.5% for the year 2015 and a 25%⁴ growth in the manufacturing sector within the next 10-15 years, the Government's "Make in India" initiative is reflected in the synergistic growth opportunities instrumented by BFL in new markets by way of JV's. This includes a 51%⁵ stake in a JV with Israel's Rafael Advanced Defence Systems to manufacture Spike Anti- Tank missiles in Hyderabad (link).

BFL's and France's JV- The INR 13506crore Alstom Bharat Forge power manufacturing supercritical turbines and generators at Sanand, Gujarat with a capacity of 4000MW, is a cornerstone in the 'Make in India' initiative.

BFL believes that no business proposition should be set up on the basis of government subsidies and if it does then it would be a bonus⁷.The government of India allows 100% FDI with automatic approval in the auto component sector, driving growth through increased investments in R&D operations and laboratories.⁸

¹ <http://bharatforge.com/company/about-us.html>

² <http://money.livemint.com/iid93/f100493/accountingpolicies/company.aspx>

³ <http://www.moneycontrol.com/company-facts/bharatforge/locations/BF03>

⁴ <http://deshgujarat.com/2015/08/01/make-in-india-showing-results-baba-kalyani-in-gujarat/>

⁵ <http://www.ibtimes.co.in/aero-india-2015-indias-bharat-forge-israeli-rafeal-defence-announce-joint-venture-623932>

⁶ <http://profit.ndtv.com/news/corporates/article-alstom-bharat-forge-begins-production-at-gujarat-plant-766188>

⁷ <http://www.livemint.com/Politics/pNVwvEo1TcNibQMPKWDjGI/Cleaner-greener-cheaper.html>

⁸ <http://www.makeinindia.com/sector/automobile-components/>

Proposed Diversification

The diversification that is proposed for Bharat Forge to enter into is the India's solar power sector.

Industry attractiveness:

India offers limitless potential for the renewable power industry owing to its increasing urbanization, economic growth and growing per capital energy consumption. Moreover, the recently announced Jawaharlal Nehru National Solar Mission aims to generate 20000 MW of solar power by 20229. This follows the growing constant pressure from the international community on resolving the climate change issues and consequent focus towards increasing the usage of renewable energy standards. This has led to the Indian government aiming to develop smart cities with focus on solar energy. It shows the opportunity that lies ahead for Bharat Forge. This would provide the company with a new global avenue and help in de-risking its business model and reducing cyclical fluctuations in its cash reserves.

Synergies:

The company can leverage its strengths in engineering, technology, design, process innovation and R&D to drive this diversification. As per a recent report of Credit Suisse, Bharat Forge is considered to be the best in technology with high cash generation and return ratios¹⁰. The cash reserves of the company and its success in other business including auto and non-auto can help the company in acquiring the capacity for solar equipment which is a vital constraint.

Implementation Strategy

Bharat Forge can plan a 250MW solar power plant at 1200 Crores over 3 years. The following are the alternative options for the company to generate revenue:

1. **Sale to Utility:** The electricity produced is sold to state electricity board at a rate either agreed upon or through an open market bidding process.
2. **Sale to private customers:** In this case the electricity produced is sold to private company which might be looking for stable and reliable electricity input.
3. **Renewable energy certificate and carbon credits:** Through this, the electricity board would supply tradable Renewable energy certificates per every 1MW. This can be sold or traded by the promoter.

⁹<http://www.makeinindia.com/>

¹⁰http://www.business-standard.com/article/opinion/can-bharat-forge-double-in-two-years-time-114070801062_1.html

As per the national renewable energy laboratory, the states of maximum solar irradiation in India are Gujarat, Rajasthan and MP, parts of Karnataka, Tamil Nadu and Andhra Pradesh¹¹. Rajasthan contributes to about 28% of the installed solar power capacity in India and Gujarat contributes to 24%. Several states have released its solar policy in order to attract investments both from foreign and national investors. The pioneers in these has been Gujarat and Rajasthan, they have successfully attracted several investors¹²

Expansion to states

In the same context, favourable policies are provided by Tamil Nadu and Andhra Pradesh state. Currently Tamil Nadu government is targeting 3GW of solar power capacity in next 3 years. They have planned to develop solar power parks in all districts of at least 50MW capacity.

The following advantages are obtained through investment in **Tamil Nadu**:¹³

- Single window clearance and guaranteed 30-day clearance for the selected promoter.
- Exemption from payment of electricity taxes: Tax reductions would be provided by the TN government as per the current industry policy.
- Exemption from Demand cut: 100% of installed capacity allocated for captive use effort will be allowed.

At the same time, the Andhra Pradesh government is targeting to produce solar parks of capacity of 2.5GW in next 5 years. The state electricity board has also planned to buy 2 GW of power from solar power plants in 5 years¹⁴

The following are the incentives provided through investment in Andhra Pradesh Government:

- Transmission and Distribution charges would be relieved for wheeling of power generated from solar power for only captive use or sale within the State.
- Exemption from electricity duty.
- Exemption from cross subsidy surcharge
- Solar projects would not be required to apply for any pollution clearance certificates.
- These power plants would be established under the industries department and hence those incentives would also be applicable.

¹¹http://mnre.gov.in/sec/DNI_Annual.jpg ¹²<http://mnre.gov.in/file-manager/UserFiles/Workshop-RPO-RECs-FIE-30072014/Status-in-Solar-Power-Market-&-Introduction-of-REC-Market.pdf>

¹³[http://mnre.gov.in/file-manager/UserFiles/guidelines_sbd_tariff_gridconnected_res/Tamilnadu%20Solar%20Energy%20Policy%202012.p df](http://mnre.gov.in/file-manager/UserFiles/guidelines_sbd_tariff_gridconnected_res/Tamilnadu%20Solar%20Energy%20Policy%202012.pdf)

¹⁴[www.ireeed.gov.in/policyfiles/436-AP%20SOLAR POWER POLICY.pdf](http://www.ireeed.gov.in/policyfiles/436-AP%20SOLAR_POWER_POLICY.pdf)

Challenges and Risks

There are a lot of challenges and risks that has to be considered in the proposal. First, India poses huge risks regarding financing, land acquisition and in mitigating capacity constraints. The land required for solar power plant should be isolated and on uncultivable areas and should not be water stressed. The majority of the PV cells still are imported, mainly from China, given that the domestic industry is very immature. Second, there are risks regarding dealing with high penetration, unavailability of peak load management capability, transmission constraints and diurnal power integration into the grid. Third, the lack of closer industry-government relations is also not helping the current solar power technology industry to achieve the required scale.

The government plays a critical role in the solar power generation industry growth, since the allotment of land and financing support can be executed by the government. However, the government is playing its role through the establishment of the subsidy scheme being implemented by IREDA through NABARD to provide 40% subsidy on capital costs¹⁵.

Way Forward

Foreign investment and money play a critical role to setup the whole plant. The company has cash reserves and is very well placed with the debt and there is no burden as such. The tie-ups with the foreign players however can help the company to improve on the lack of latest technology available in the country. A recently reported case was regarding Softbank entering solar market with investment up to \$20 billion. However, FoxConn was shortlisted for manufacturing the plant rather than any local player¹⁶. However, the company's brand can help improve the confidence in the foreign players to consider making solar panels in partnership with it. Thus investment looks positive and the company would be able to tap the opportunity in the market.

¹⁵<https://www.nabard.org/uploads/Cir%20131%20H%20-%20Revised%20Solar%20P.set%20circular.PDF>

¹⁶<http://in.reuters.com/article/2015/07/02/india-solar-idINKCN0PCOI620150702>