

## From Energetica India's Blog Stable; April 2014

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## Indo China Joint Manufacturing Capacity Creation in India will set a new Benchmark with access to Raw Material and Low Cost Finance

Today in India, many Indian Solar PV companies are not competent when compared to the China manufactured goods in Solar sector. The following main reasons can be attributed (see table 1).

Here are few relevant information impacting India's competence in PV manufacturing:

- India's Huge dependence on Raw materials like Ingots, Wafers which are still being imported, hence, no control on cost of raw materials with added strain due to Rupee devaluation against Dollar. Thus, less manufacturing jobs with huge forex out-flow

- Total manufacturing capacity is much less than China, hence, losing out on volume based manufacturing
- India added only 2 GW Solar PV since NSM announcement, but, China added 13 GW of Solar PV in the FY 2013-2014. Hence, a very good increase of manufacturing GDP with good number of jobs

### **Bridging the Gap between Indian Manufacturers and International Players**

From the identified GAPS in table 2 and the suggestion to

Bridge the GAPS, it makes a good sense to collaborate to set up the manufacturing units with China based companies, instead of direct import from China with their disruptive export policies.

This will also help Indian entrepreneurs to access the low cost funding, control on the quality and cost of the raw materials. This will help them remain competitive in the market, accompanied with increased manufacturing GDP and job creation in India.

The joint manufacturing activity (including transfer of machines to their JV in India with excess capacity lying idle

in China) will also reduce the price war and also ensure the order generation to China based companies through India manufacturing. We have experienced in this with Japanese auto companies having their manufacturing units in important markets; thereby skirting the anti-dumping duty issues.

Our basis for joint manufacturing activity is due to a fact that India and China, both, have abundant market potential for Solar PV, therefore, to meet the local market needs, it is very essential to have the local manufacturing activity as the panels, when found defective shall be replaced in house without sending them back to the overseas or such unwarranted costs. This also helps in pooling the plant and machinery with the necessary scale up or scale down manufacturing operations in tandem.

Since, Chinese companies are interested in investing in

TABLE 1

Description	China	USA	INDIA
Nominal Rate of Interest on Working Capital	9.5 to 10.2%	6.4% to 8.9%	12 to 14%
Subsidized interest rate of debt (after subsidy) which can be deployed for working capital needs	3 to 4.5%	3 to 4%	-
Tax holiday years	20 years	5 to 7 years	-
Effective Corporate Income Tax rate after Subsidy	0% (21% subsidy on Income tax on PV industry)	28%	-
Subsidized debt limit leverage ratio on books (Debt / (Debt+Equity))	80%	60%	-

India, the Governments can encourage such joint manufacturing activities, rather than direct imports from China with the necessary incentives and quick approvals to set up the Manufacturing units under the National Manufacturing Policy with less subsidies or to disburse the subsidy only against the actual sales made in India after manufacturing in India ▲

TABLE 2

Identifying the GAPS	Bridging the GAPS
1). Overview of Indian Companies with their company objectives, Positioning with previous business experience (from the same line or different line) or First Generation Entrepreneurs etc	1). Take a Position within the existing resources and decide to Compete or Collaborate or Remain as Ancillary.
- Do we want to compete or Collaborate / Challenge or Accept the Challenge / Remain as Ancillary	
2). Do we know our market very well ? Do we know other country market ? How is the Sustainability? Is our thinking same on Market forecast or its dynamics including the Supply Chain / Raw Material	2). Understand the local market and the international market, if necessary, hire qualified Market research organisations or rely on Collaborator with their necessary guarantee.
3). Technology Specifics (Crystalline / Thin film) and Quality + Delivery awareness	3). Come what may, no compromise on Specifications, Quality and Delivery.
4). Key Technology developing team members / Promoter's background	4). Retain and Nurture, Recruit new faces, outsource or acquire new technology as is made available.
5). Capacity of the Plant in MW and Start year of Manufacturing with right technology / process.	5). Capacity and CAPEX shall be based on sound market research, financing, market reachability in phases with Wait and Watch with USPs.
6). Plant and equipment supplier with up-gradation support or Change in technology support with cost reduction processes.	6). Reputed equipment supplier supports the change or variation in technology worldwide, so, purchase of equipment shall consider this key aspect.
7). R & D facilities both for manufacturing & alternate materials with expenses incurred on R & D	7). In house R & D facilities both for manufacturing & alternate materials recommended. Collaboration helps to bring down the expenses incurred on R & D
8). New products launched / improved in the past 3 to 6 years	8). Collaboration with Research organisation or acquisition of a research company could be fruitful.
9). In house Ingot facilities with Capacity (supply Chain issues / challenges)	9). Helps to channel the Working Capital and ensure the supply chain and contain the price fluctuation.
10). In house wafer manufacturing facilities with Capacity (supply Chain issues / challenges)	10). In house wafer manufacturing facilities with Capacity helps in ensuring the supply chain, quality and contain the price.
11). Incentives offered by the Government	11). Depend the least on Government support
12). Working capital (Interest rate impact) management issues vis-a-vis Sales	12). This is the main Game, play it safely with an access to low cost debt fund, reduce the inventory.
13). Manufacturing Units in Other Countries	13). Strategically locate. Do not be Greedy to become Numero UNO, rather, become a NICHE player
14). Sales Turnover in other countries	14). Be a Quick learner and never repeat mistakes made in One Country in the other.
15). Shall Government support still needed, if so, was it not enough? what more is needed ? As manufacturer or technology developer, what support is needed to development new technology?	15). Depend less on the Government, rather, quickly think and act to bring out how other country or company is so competitive with real facts and if Government support is necessary, only then approach. Try to Be a leader, let others to follow you.
16). Without Joint Venture, whether INDIAN companies can survive or excel ??	16). Collaboration is the good Mantra for Success due to Nascent and volatile market v/s price war.
17). Any serious technical or supply lacuna faced by any project developers or buyer of PV panels from the INDIAN Manufacturers, in so far.	17). Avoid the errors even if it costs fortune, if you want to be a long term player of repute.
18). As developers, how best we can support the INDUSTRY with self reliance or good technology promotion aspects i.e What do you expect from the Project Developers with high degree of transparency....	18). Educate the developer with after sales support. Do not expect too much of premium as you must be able to sell near the market price.
19). Sustainability v/s New Invention	19). To be sustained and depends more on market dynamics
20). Innovative Business Concepts	20). Always be alert and Innovative, like your best competitors do and excel them without harming the sustainability.
1) Asking for Government to support by maintaining the clause" The panels must be from Indian Supplier : Made In India – Tag"  Seeking Government support = Begging or robbing a common man or poor farmer or our Gen-next through policy makers !!!!  The objective shall be to reduce the price with transparency and also to compete in World market with volume and good technical specifications.	1) Support from the Govt without increasing the project cost, thrust to improve price of Indian made panels while incentives being passed on to Indian cos while allowing to import cheap panels
	2) Let a supplier (Ab) from abroad come through an Indian panel supplier (Ind) (who must be supplying 20% of his local production in India or abroad i.e an Indian PV manufacturing company in Operation which gives employment).
	3) Let the (Ab) pay 2.5% trade commission to (Ind) while maintaining minimum stock with (Ind). (Ab) shall remain responsible for 25 years of warranty and product replacement , if required in future under warranty period, shall be replaced from the stock (Ab) holds with (Ind).
	4) Thus, we ensure some cash flow to (Ind), low cost panel import and hence the benefits to Project developer +
	5) Indian panel manufacturer MUST compete with international price without any protection from Govt i.e Panels should be made in INDIA or expecting Antidumping duty etc
	6) It is also not prudent to impose anti dumping duty on low cost panel supplier like what other countries are doing, which increases project cost and may cause hinderance to the project development. Let this additional 2.5% cost be adjusted through tax holiday or such scheme.