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Actually, NEW and Lucrative projects for INDIAN entrepreneurs to look at: **They employ much of plastics.**

SOLAR power: Most parts of india receive 4.7 kwh of solar radiation per square meter per day with 300-325 sunny days in a year. i.e. about 3000 Hours of Sun Shine = 5,000 Trillion kwh. = 5000 x 1 000 000 000 000 KWH!

Usual Indian Demand is 98 Billion Units = 98 x 1 000 000 000 Watts, only as against Sun alone can give us!

India will add between 600 to 1200 GW power generation capacity by 2050=600 x 1000 000 000 Watts to 1200 x 1000 000 000 Watts [International Energy Agency-Paris' estimation]

AND SO, please understand, all citizens, we need not depend upon GOI each time and for always. We must start contributing and install Solar panels on EACH roof top. And there lies the Business.

We need the following to do so:

- Development of Strong Nationalism such that each person must understand that he shall no more contribute to pollution and shall ensure clean air not only to inhale but also not to pollute.
- Smart Marketing from manufacturers and Government.
- Wider and Bigger manufacturing base facilities for which Government also can contribute and of not, the Already RICH people in the race to be the among world's richest. Such people must be compelled by GOI to start Making. [If I were the PM, I would do so at the cost of even Democracy] Bigger making base shall ensure controlling costs.

All the three above are Sweet dreams so far.

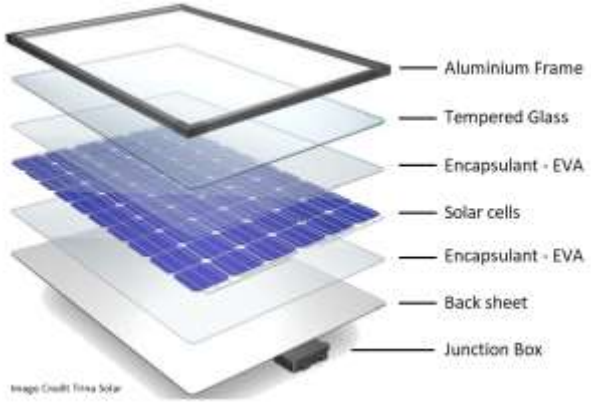
32000 Sq Km = 1 % of INDIAN land can produce: 2000 x 1000 000 000 x 1000 000 Watt, **BUT how about empty roof tops?**

ACTUALLY, At Rs 4 / kwh Solar power can offer land productivity / yield at USD 14000 per Acre. This is better in terms of return compared to Irrigated Agriculture land. Was this not a serious miss by most?

Plastics for solar Applications:

We cannot just think the world without plastics at numerous fields and one more jolt to the advocators of "plastics-free world" is here.

When the world is looking to find replacement to energy from fossil fuels, solar is vast and widely available resource which all will have to employ, If I were THE PM of this country, I would make it compulsion for all to have solar panels at atop each house. Check the diagram here-below.



There is 1) **Encapsulation film** which is made up of EVA which is [Poly] Ethylene Vinyl Acetate, the function of which is to support and protect the sensitive photovoltaic cells in solar panels. It is mixed with five more additives to finally make the film. The solar panel to last at least for 20 years, the better thickness recommended to be used is 0.45 to 0.5 mm.

Wish to make this in INDIA? Have a look at the following:

Machinery+ Utilities	4,00,00,000
land + Building	1,60,00,000
+ Transport +Installation + commissioning costs+ unloading + Start-up + consultant's cost	24,00,000
Total	5,84,00,000 **ONLY.**

The above investment can give production of about 22,00,000 Sq. Meter per year of 300 days abroad in any country. Effectively and safely it can give 17,70,000 Sq. M. per year considering INDIAN labor styles and all Jayantis and all excuses of claiming holidays with Elections, Rallies, Bandhs and strikes. This can allow us to make about 5.35 Lac Solar panels of 60 cells or 4.42 Lac Solar panels of 72 cells per year.

2) **Back sheet,** it is a film which is made up of TPT / TPE. It is a three-layered film of PVF+PET+PVF mostly OR PVF+PET+PE at times. For solar applications mostly the thickness used for this film is 0.3 mm.

The functions of this films are as below:

- To save from Ultra-violet radiation.
- To save from Humidity and vapor penetration
- To keep away: Dryness, wind, dust, sand, and chemicals, if any around.
- And it saves from scratches, especially during installation and maintenance.

About investment of say Rs 8 Cr, we can make this.

It is wise to make such things in INDIA now, there is a seriously huge scope and least possible competition in this field.

Wind power: There is another fossil fuel avoiding source of power, which is WIND. Though it is not perceived as economical investment amongst many, who are used to live on government grants and subsidies, people look for anything and everything subsidized and cheaper. For some, subsidies are the prime reason to start any new project, unfortunately irrespective of business prospects and ROI.

Like solar power also, the wind power is not cheaper to start to invest for any lay-man or an individual. Who cares about pollution and clean air here? People hardly can see such benefits; we are all used to live with dirtiest possible air to inhale and live with it.

Also, a mis-conception that the wind mills have to be very big, too high in cost and for the grounds of open space, people are in fact ignorant courtesy our ill-education, economy and politics which is a set of a vicious circle starting from first point of population explosion.

Check the domestic wind mills, **much of which are made from plastics.**

Making such things also does not need much of investment, the questions all ask are:

ONE: Whom will I sell them? Indian customer is a silent buyer and wakes up on impulse buying signals. They need to see the neighbors buying something, may it be the deadliest poison [example: smart phones, a number of them each year, on & on, ever….] Morbi and Rajkot kind of effect is seriously needed for such projects. Where one starts, the others simply follow.

Two: When can I get money back? Are you to die tomorrow after getting the money out of the project? And more importantly, are you going to carry the money with you?

Even the moneyed entrepreneurs are confused among the most stupid thoughts on ROI.

34.5 GW = 34.5 x 1 000 000 000 Watt is installed Indian wind power capacity [March 2019] Which is just 2.5% **power production** of INDIAN need! This is for the bigger industrialists to think over to park funds in such things in case you realize the ROI.

Among both the Fossil-fuel alternatives which employ plastics, wish to know the possible opportunities of Growth? Check the data as below. It is INDIAN **Installed power** capacities by 2019.

Type	MW	%
Coal	203954.5	56.11
Large Hydro	45399.22	12.49
Small Hydro	4610.81	1.268
Wind Power	**36930.32**	**10.16**
Solar Power	**31101.71**	**8.556**
Biomass	9271.3	2.551
Nuclear	6780	1.865
Gas	24937.22	6.86
Diesel	509.71	0.14
Total	363494.8	100

[Please note: There are Installed Capacities and not production.] Just 10 and 8.5 % of the total energy need and so there is huge opportunity in INDIA. And these are installed capacity and not actual Generation which be noted.

Each house roof-top is available in INDIA for both the above two types of sources of energy generation, we just need to pump deadly invested money in Gold/ Silver/ Diamonds. Millions still sit on such dead investment and Land also and carry nothing together when go to God.

Jai HIND.

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