Financing of Solar Power :

Developer's Perspective

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"The Future of Solar Energy in India"

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Developer Looking For :

- Clearly Defined, Forward Looking Policies
- In practical Terms :

  “ Investment Follows Policy”

- Examples of Some Policies not successful despite big banner advertisements and some policies successful
- Pro- active steps to follow after policy announcements

Ultimately What the Developers want :

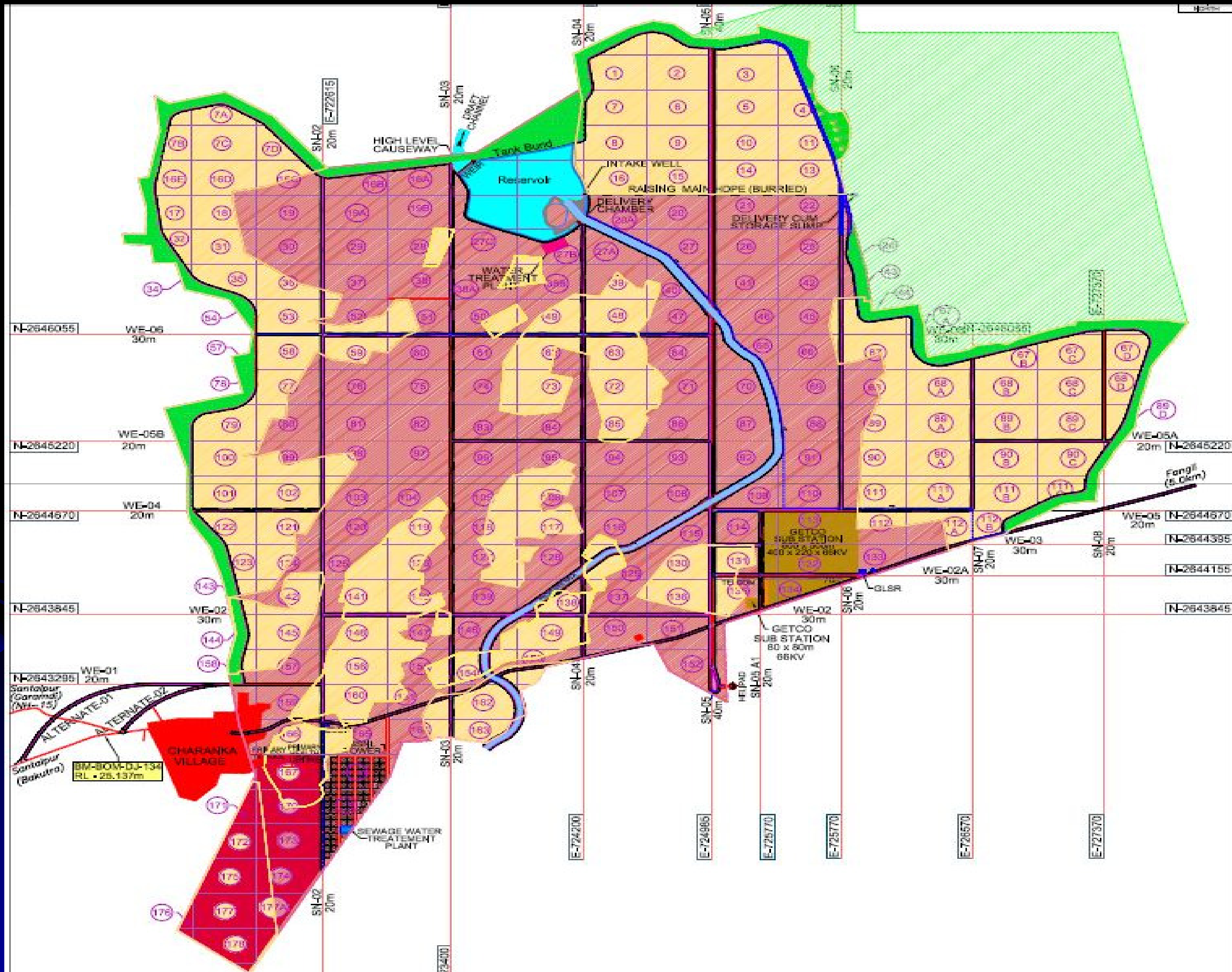
Bankable PPA

Successful Gujarat Model

- First MNRE Policy in February 2008
- The policy offered Rs. 12/kwh to developers
- This first MNRE policy of February, 2008 triggered a war of incentives amongst various states of India
- Accordingly Rajasthan, Punjab, West Bengal states came out with their own policies
- Gujarat Policy 2009 declared in January,2009 and Gujarat stole the march

Gujarat Stole the march

- PPAs worth 971 MWs were signed by 84 Developers by December, 2010
- Gujarat Govt. did not stop at just announcing a good policy – but followed it up by further proactive step like India's first Solar Park – so that the problems of Land and Evacuation faced by solar developers are taken care of.
- These steps, later paid reach dividends
- Solar Developers formed the Solar Energy Association of Gujarat which arranged seminars on Land, Financing of Solar Power etc. – with cooperation from GOG, Banks and others.


HIGH LEVEL CAUSEWAY
DRAFT CHANNEL
Tank Bund
Reservoir
INTAKE WELL
RAISING MAIN HDPE (BURRIED)
DELIVERY CHAMBER
DELIVERY CUM STORAGE SUMP
WATER TREATMENT PLANT
GETCO SUB STATION 400 x 220 x 66KV
GETCO SUB STATION 80 x 80m 66KV
GLSR
SEWAGE WATER TREATEMENT PLANT
CHARANKA VILLAGE
BM-BOM-DJ-134 RL = 25.137m
ALTERNATE-01
ALTERNATE-02
Santalpur (Garamdi) (NH-15)
Santalpur (Bakutra)
Fangli (5.0km)
N-2646055
N-2645220
N-2644670
N-2644395
N-2644155
N-2643845
N-2643295
E-722615
E-724200
E-724985
E-725770
E-726570
E-727370
WE-06 30m
WE-05B 20m
WE-05A 20m
WE-05 20m
WE-04 20m
WE-03 30m
WE-02A 30m
WE-02 30m
WE-01 20m
SN-02 20m
SN-03 20m
SN-04 20m
SN-05 20m
SN-05 40m
SN-05 A1 20m
SN-06 20m
SN-07 20m
SN-08 20m

Receiving Commissioning Certificate for Kiran Energy's 20 MW Solar Power Project from Director, GEDA

Launching of the Association by Dr. J.J. Irani

Land Availability Options Seminar

Organised By

Solar Gujarat

Solar Energy
Association of Gujarat

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SunEdison
simplifying solar

Supported By

GEDA

Gujarat Energy
Development Agency

Speakers at the Finance Seminar

D.J.Pandian in Audience – Finance Seminar

D.J.Pandian Speaking at the Finance Seminar

Trials and Tribulations of Solar Developers

Despite the excellent policy, enabling provisions and encouragement from the Govt. the developers faced major challenges and went through precariously anxious moments in meeting the deadline, mainly in the areas of :

- Land
- Financial Closure
- High Interest Rates
- GRID Connectivity
- Flooding and Heavy Rains
- Infrastructure being developed simultaneously

However, the problems were eventually solved by the spirit of entrepreneurship of the Developers and cooperation of the Govt. and it’s agencies

Successful Commissioning

- Despite the difficulties and challenges faced, ultimately success was achieved and a total capacity of 605 MW was commissioned by March, 2012

- The latest figure of commissioned solar projects as of today is 854 MW for Gujarat.

View of Successfully Completed Projects at Gujarat Solar Park

View of Gujarat Solar Park

Success Attributed to

- The success of 605 MW of Solar Power in 15 months by March, 2012 – now 854 MW, can be attributed to :
- Excellent Enabling provisions of Gujarat solar Policy 2009 and Proactive role of the State Govt.
- Whole hearted support received from the GOG agencies like GEDA, GUVNL, GPCL, GETCO etc.
- Solar Developers bringing large investment of Rs. 10,000 Cr [2.0 Bn], state of art technologies, undertaking risk, and making all out effort pulling no stops in meeting the deadline

Developers Looking Forward to :

- **Bankable PPAs**
- **By Central Govt.**
- **State Govts**
- **Private Creditworthy customers**

Developers Looking Forward to :

- 750 MW JNNSM Phase – II part – 1
- Solar Rooftop central and state policies. SECI has already started announcing and awarding tenders for various cities.
- Solar Rooftop expected to be a game changer.
- CSP – 2 pilot plants to be announced soon.

Developers Looking Forward to :

- **Further announcement of JNNSM – Phase – II part – 2**
- **Further CSP plans – 1050 MWs as part of JNNSM Phase – 2**
- **Policy for Solar Agricultural pumps both by the Centre and States**
- **Telecom Towers – much talked about but nothing concrete seems to be happening**

Developers Looking Forward to :

- RPO enforcement and it's effectiveness
- Bankability of RECs and making RECs Effective – Thorough overhaul of REC Mechanism
- Ensuring more funds available for solar energy from NCEF
- NCEF funds to be disbursed more speedily than at present
- Availability of finance at internationally competitive rates

Developers Views :

- Indigenous Manufacturing – scale – global competitiveness
- Anti dumping duties
- Project Cost to go up by Rs. 1.25 Cr / MW with Anti dumping duties
- Adverse Effect of Rupee Depreciation
- Consequent Effect on Tariff of both these factors
- Some Developers refusing to join NSEFI, if we support any Domestic Content Policy
- Promoting indigenization in a sustainable manner

Developers Looking Forward to :

- **Priority Sector Lending by Nationalised Banks and other Financial Institutions**

- **Availability of finance at internationally competitive rates**

Developers Looking Forward to :

- **Concentrated Solar Power to be more understood and exploited than at present**
- **Storage Possibilities – 4 Hrs, 8 Hrs, 12 Hrs**
- **Less land requirement**
- **More indigenization possible – already achieved 60 % by CLFR Technology**
- **Desalination possibilities**

As against the Wish List of Developers – Ground Reality :

- **Solar Sector in the country undergoing tough times**
- **Uncertain Financial Mechanisms – NCEF, RPO, RECs**
- **Lack of low cost financing – as is the case with other countries**
- **Regulatory Uncertainities**
- **Developers wish some uniformity in REC and RPO implementation in all States and Centre.**

As against the Wish List of Developers – Ground Reality :

“ Lack of finance is the most critical issue faced by National Solar Mission ”

- Tarun Kapoor
Jt. Secy, MNRE

As against the Wish List of Developers – Ground Reality :

“ One of the biggest challenges solar projects in India face is the availability of cheap finance ”

V. Saibaba

Chairman, FICCI Solar Energy Task Force

Ground Reality is also the fact that :

- **India has impressively achieved nearly 2.0 GW capacity in a relatively short period of time**
- **Solar costs have drastically reduced, Diesel parity achieved long ago, commercial grid parity achieved in many urban areas**
- **Solar Developers are puzzled whether to quote Rs. 5.51, 6.49, 7.0, 8.4 or 9.0**
- **Solar energy has picked up momentum with more and more states participating**

Ground Reality is also the fact that :

- There is a greater awareness about solar than ever before in the country
- Consequently, there are ever increasing expectations from solar energy.
- Solar Energy holds out a great potential for contributing to the country’s energy basket and meeting people’s energy needs.
- It remains to be seen how the Developers, the Govt., Banks, Regulators play their role to realise this potential.

Converting Solar Dreams to Reality

- A very important step in converting solar Dreams into reality will be :

" Accord the same priority as Space and Nuclear Programs to Solar Sector"

Converting Solar Dream into Reality

Increase the Solar Energy Budget to 5 times across the board, than the present Budget – until Grid Parity is achieved

I am an eternal optimist and believe in the slogan

“ Dreams Come True”

Thank You