MR. TARUN MUNJAL, MANAGING DIRECTOR - MEECO INDIA AT MEECO GROUP

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Energetica India talks to Tarun Munjal, Managing Director– meeco India to gain insights into meeco Group's focus and progress in India.

Energetica India: Please give us a brief about the meeco group on a global scale.

Mr. Tarun Munjal: The meeco Group has become one of the world's leading clean energy companies by leveraging its competencies and local expertise with the best technology and service providers in the industry.

Some key figures:

- Over € 1.100 million in projects sold and financed
- Over 329 MW financed and operational (100+ projects)
- Over 400 MW additional in development (150+ projects)

We work with project developers, businesses, governments, technology providers and EPC contractors to structure, finance and commission highly bankable projects. By providing the optimal set of services and solutions for each project, we minimize the investment required and maximize return on investment for clients and stakeholders.

Some of these services and solutions include:

- Project development assistance, due diligence, project structure and finance, engineering, construction and operation
- Turnkey utility-scale solutions
- Off-grid solutions
- Portable solutions

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Energetica India: What services/products/ solutions are being offered by meeco India?

Mr. Tarun Munjal: The meeco Group has an industry leading portfolio of quality solar offerings. In India we offer turnkey EPC services for projects up to 5 MW. We offer consulting services (Design, Engineering, Project and Construction Management) for utility scale projects in excess of 10 MW. This is a segment where we believe the value of EPC diminishes and a number of projects become a zero sum game between the Developer and EPC provider. With the high cost of debt locally and hedging for internationally raised funds, project viability hinges on few basis points which we are able to add back into the Project Developers kitty. We are able to give them comfort that no compromises are made on quality which is the factor that determines returns once the project goes live.

Besides projects, we are investing very heavily in building our portfolio for Rooftop onsite solar power generation. This is a segment which I personally believe will become more significant than large scale ground based projects. In a year or so, this will have almost a viral adoption in India. Onsite power generation in a grid connected topology has become cheaper than grid power in the industrial and commercial segments regardless of the subsidy from the government. Packaged into our sun2live brand, we have two models for delivering these projects – on a turnkey basis and on a long term PPA model. Our plug and play model technology means that you could be operational within 60 days from financial arrangement.

Over the past two years we have developed meeco India into a regional hub to support our growing presence in Africa and South and South East Asia. The Indian subsidiary supports both Business Development and execution of projects in this part of the world in conjunction with our colleagues in Europe. This adds a dimension to our business that brings us an unrivalled level of experience and leverage.

We have developed India as the hub for integration of two important products in our portfolio – sun2flow (Solar Water Pumping Solutions) and sun2light (Solar and LED Lighting Systems). We have formed a joint venture agreement with Paruthi Engineers Limited, leveraging on their vast facilities and expertise in Steel Fabrication, Pole Designing and Manufacturing. We have designed innovative solutions for irrigation providing mobile systems for small farmers and fixed systems for larger pumping stations. Our sun2light range offers best in class LED lighting for

indoor and outdoor use coupled with the industry leading designs for Poles and High Masts with an option to power these with Solar Energy.

Our group has made strategic investments in large scale utility storage technologies. These are still expensive in the Indian context. They are a couple of years away from serious adoption in India but we will be ready when the market is ready to absorb this. We belive that this will be a game changer for both onsite generation and grid stabilization in utility scale Solar and Wind farms.

Viterbo Italy meeco grid-connected-© Würth Solar.

Energetica India: Please share with us the progress and achievements of meeco India on the solar side

Mr. Tarun Munjal: In the initial stages of establishing our presence in India, we have used our global expertise to perform services based projects as opposed to developing and owning licenses because of the complicated rules associated with transferability of SPVs which managed to secure PPAs with high tariffs. We have been successful in commissioning the first MW scale project in the IREDA scheme it in the shortest timeframe compared all other projects in Punjab. In addition to this, we provided our Engineering and Design services to a 55MW project in Rajasthan, which is amongst the largest in India.

We have a number of sun2live projects across NCR, Haryana, Rajasthan and Punjab both on a turnkey implementation basis. This line of business is growing with great pace and the customers are able to see an immediate reduction in Power bills and insulate them from tariff increases in the future.

We have successfully deployed mobile sun2flow in Uttar Pradesh to support flood as well as drip irrigation. We have a large backlog of orders for sun2flow and sun2light from both domestic market and export to Africa and neighbouring countries. We see ourselves extending this offering to Europe in the very near future.

In addition, we have made significant contribution in deploying innovative renewable energy solutions in India. A couple of examples include providing an in-depth survey and assessment report of Solar potential and benefits of deploying PV systems covering canals to a government department. We have put up a demonstration micro hydro system in a canal in Punjab to exploit the kinetic energy of water in canals and rivers.

We have an approach based on investments, research and innovation which gives us the fuel to stay ahead of the pack

Energetica India: What has been meeco India's learning on solar installations in India? How does it differ from doing projects in Europe?

Mr. Tarun Munjal: European capacity has essentially been added on a free market basis where the first to connect to the grid gets the prevailing tariff subject to the capacity cap for the particular tariff. Gujarat used a similar model and hence was able to ratchet up the installed capacity. Reverse bidding on tariffs in India which was a measure introduced after the migration of projects in JNNSM has resulted in some exceptionally poor quality projects.

The REC framework is comprehensive and excellent market based pricing mechanism. However, this has been crippled by one weakness, which is essentially voluntary enforcement for not meeting RPOs. RECs have, therefore, remained non-bankable to date and remained a sweetener for deals. State government have come up with various policies but most have offered very low tariffs and will lead to poor quality projects and the timelines will not be met.

The Indian Government is talking about ultra mega plants aggregating to 4,000 MW in Rajasthan, adoption in large projects such as canals, highways and logistics corridoors and net metering. There will certainly be delays but some of these initiatives will take off and some will fail. The quality of Project Development is key to these initiatives, the value of which is highly underestimated in India.

We feel that quality is paramount and an uncompromisable tenet in solar power sector for long term and sustainable returns. PV Projects are built for at least 25 years but that long term mind set has not yet resonated in the Indian market as yet. Ultimately in this regard, Indian Project Developers will take a cue from their European counterparts.

Energetica India: Where is the next big growth expected in India on the solar side; on-grid or the off-grid side? Can you please share your thoughts on this?

Mr. Tarun Munjal: The policy uncertainty, paucity of funds for subsidy disbursement, lack of renewable energy lending expertise in banks in the country have certainly contributed to impede the expected growth of the Solar market in India. These factors will continue to weigh on the near term and as well future as there is no clear solution in sight for these issues. However despite the problems, the sheer scale of demand for power in India, bottoming of PV prices and failure of power plant capacity addition based on gas and imported coal have contributed to expansion of the Indian solar market into Gigawatt plus scale. This has proven without doubt two things – (i) Solar works and (ii) the potential of Solar power generation in India is virtually limitless.

Over time, India's Solar landscape is going to be vast and will push the boundaries in all directions including some which are not practical in Europe such as micro power. India will experience growth in utility scale, large projects, grid connected rooftops, hybrid systems, off grid systems and even micro power.