Emerging Markets

The booming regions of the world’s sun belt are promising for large-scale PV projects.

Investments in solar energy, especially PV power plants, bring the promise of outstanding prospects. Energy demand continues to rise in countries such as South Africa, India, Chile, Mexico and the Middle East. In fact, in these countries, a great deal more energy is needed than can actually be produced, a situation further complicated by the steep rise in electricity prices for conventional energy sources.

So why not invest in expanding the electricity supply in a way that takes full advantage of solar energy? As the established renewable energy markets adapt to the changes brought by government subsidy cutbacks, the decline in solar panel prices and energy sector bankruptcies, the entire solar sector is now focused on emerging markets. Effective competition requires technologically advanced products and system solutions combined with long-standing experience and a company firmly grounded worldwide with global reach such as SMA Solar Technology AG.
Overcoming Obstacles Together

Apart from a lack of political understanding in emerging PV markets, there is often an absence of laws and regulations in the renewable energy sector. Additional factors with a significant impact include complicated bureaucracies, different business cultures and inadequate infrastructure. Uncertainties often prevail, caused by unresolved issues regarding the stability of power distribution grids, feed-in regulations and grid management capabilities of large-scale PV power plants. SMA employees are at work around the world helping define and establish requirements and standards through direct communication with electric utility companies and government authorities. From another vantage point, inverters and all other components must be able to withstand even the most extreme circumstances such as temperatures from over 50 °C to far below freezing, sand and dust, humidity combined with corrosive effects of salty air and the special requirements of high altitudes or during rainy seasons.

30 Years of Global Experience
SMA Solar Technology AG has been supplying leading inverter and system solutions for PV plant designs of all sizes on a global scale. SMA provides quality products and technical expertise as well as excellent service offers in any of its 20 subsidiaries located in 21 different countries on five continents. Furthermore, planning security is not only critical for products, system solutions and implementing PV projects, but also gives partners peace of mind during the planning phase and in resolving technical issues.

Enormous Interest in PV Power Plants

INDIA
- 1.2 billion inhabitants
- 3,287,590 square kilometers of space
- 300 sunny days per year
- 8.5 percent economic growth
- **Target:** 20 GW of solar power by 2022
- **Challenge:** extremely varied climates, infrastructure, grid management capabilities

SOUTH AFRICA
- 50 million inhabitants
- 1,219,090 square kilometers of space
- 320 sunny days per year
- 3.1 percent economic growth
- **Target:** 8.4 GW of solar power by 2030
- **Challenge:** climate, infrastructure, grid stability

CHILE
- 17.3 million inhabitants
- 756,946 square kilometers of space
- 310 sunny days per year
- 6 percent economic growth
- **Target:** 7 GW of energy growth by 2020, mainly from renewable energy sources
- **Challenge:** heat, extreme altitudes, grid capacity

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[Image of inverters and solar plants]
Energy Management and Power Storage Solutions for the Future

SMA can call on more than 30 years of market leadership to help create innovations in the area of smart grids, energy management and hybrid and storage solutions. Generating energy from a combination of renewable energies and fossil fuels is not new for SMA. For more than 20 years, our engineers have been working on projects with hybrid solutions.

In the regions in the world’s sun belt there is often a demand for complete energy systems rather than pure product solutions. In this respect the market for decentralized energy systems and the alternative to grid power they offer is booming. Complex system solutions are required to complement or even substitute diesel generators, which are used to power entire industries in some regions. Here SMA offers superior technical solutions for meeting both climatic and structural challenges. SMA is able to offer intelligent, efficient and cost-effective systems. PV-diesel hybrid solutions and power storage technologies are the way of the future because, thanks to its low cost per kWh, solar energy offers the best alternative to conventional energy.