

Iran's Largest Solar PV Power Plant



Mahan / Kerman / Southeast of Iran



Project Description

System Size	20 MWp
System Type	Grid Connected, Ground Mounted
Modules	76912 x 260 W, Dyna Solar
Inverters	8 x 2.3 MW, WYNNERTECH
Production	38700 MWh/Yr.
Client	Mokran Solar Energy
Completion Date	August 2017

Mokran 20 MW solar power plant is jointly implemented by Mokran Solar Energy, as the general contractor, ADORE GmbH Company, as the program manager, and DURION AG Company as main investor. Namad Niroo Company was the electrical contractor and provided engineering services for the general contractor. The project, located in Kerman Province is the largest PV power plant installed in Iran. Considering the high potential of Kerman Province for solar energy utilization, the client would like to install another PV power plant with a capacity of 100 MW in this region.



Challenges

- > The PV power plant needed to be finished before Energy Ministry's visit to Kerman, to inaugurate the power plant.
- > The PV power plant grid connection

Solutions

- > 300 employees worked 7 days, three shifts to install 76912 PV modules, cabling and other electrical jobs in 2 months.
- > The project was the largest and also among the first MW-sized PV power plants in Iran, and there was no practical grid connection instructions. This issue was resolved with frequent meetings of Namad Niroo Engineers with authorities.

"Iran's government has shown its determination to support renewable energy through its incentive policies, including the long-term power purchase agreements." said Iran's Energy Minister.



Jobs done by Namad Niroo Company:

Engineering services:

- > Design & consultancy services for AC side
- > Grid connection design
- > Electrical protection coordination
- > Implementation of interlocks
- > Setting & coordination of relays and protection devices
- > Pre-Commissioning
- > Hi-Pot tests
- > Megger test

Electrical contractor:

- > Full electrical installation
- > PV modules installation
- > Equipment installation: solar inverters, DC combiners, transformer stations, distribution stations, SCADA/ communication systems, monitoring boxes, earthing system, lightning system, metering system, electrical Protection, lighting system, CCTV system
- > DC cabling
- > AC cabling
- > Part of procurement



The official launch of the largest solar power plant took place in the presence of Iran's Energy Minister, the Head of SATBA organization, Deputy Energy Minister of electricity and energy affairs, and German ambassador in Iran.