

# Solar Power Project DBW Vietnam



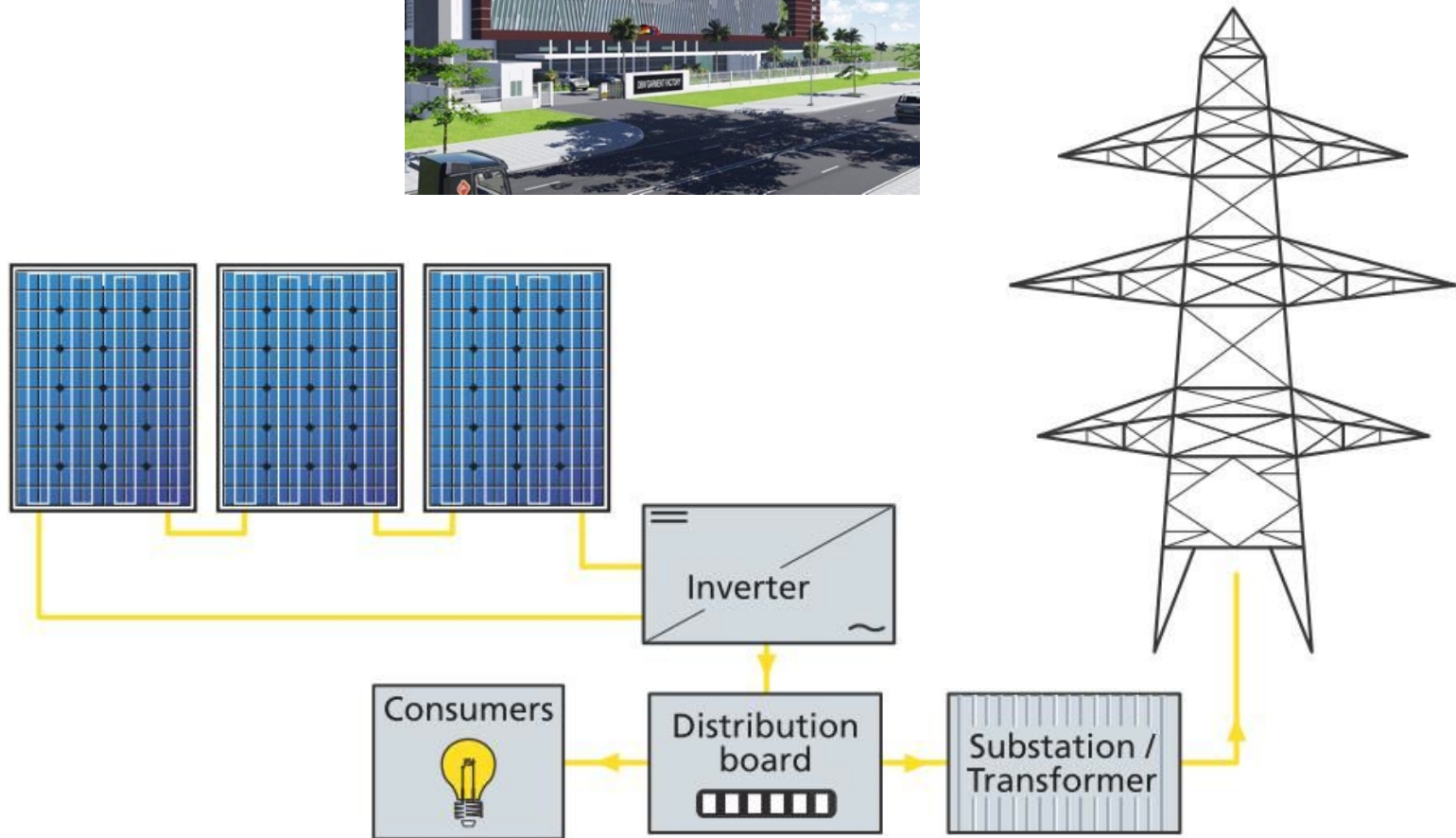
**With strong  
support of:**



Solar Power – DBW Vietnam



# Solar Power Project DBW Vietnam



Solar Power – DBW Vietnam



# Solar Power by Aschoff Solar for the Industry in Vietnam

## Advantages of Aschoff Solar

- Complete 165 kWp Installation in just 9 working days with 920 panels on the roof and 6 inverters
- Installation under German supervision
- Unique Control system fulfilling German Standards
- Power Management and Power Optimizer for best usage of Solar Energy
- Strong support in approval process by local partner
- German quality in components and details
- Experience with installations in Asia



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**165 kWp  
Solar Power System**  
for self consumption  
on a garment factory in  
Long Hau Industrial Park

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## System Requirements:

- No feed into the public grid (EVN)
- Power Management, to reduce solar power in case of Solar Power > Demand
- Grid and System protection
- Low ballasting on the flat roof
- No roof penetration

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## Support Structure

- Based on aluminium
- German Quality Components
- No roof penetration
- 10 years warranty on support structure
- Wind load calculation based on German Standard EN 1055

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## Solar Power Modules

- 635 pcs high efficient poly-crystalline Solar Power Modules 260 Wp
- 25 years performance warranty on 80 % solar power
- Simulation of system by PV Sol professional based on Meteonorm data

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## Solar Inverters

### 6 Inverters Tripower 25000 TL

- Best performing string inverters
- From the worldwide market leader SMA Solar Technologies
- 8 years product warranty



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**High quality AC Connection  
Unit and wiring / accessories  
from Germany only!**

Fulfilling highest German  
quality requirements and  
safety standards

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Supervision for installation  
by German specialists with Multi-  
Megawatt experience on the  
international market.



Installation experience for  
years in Asia already

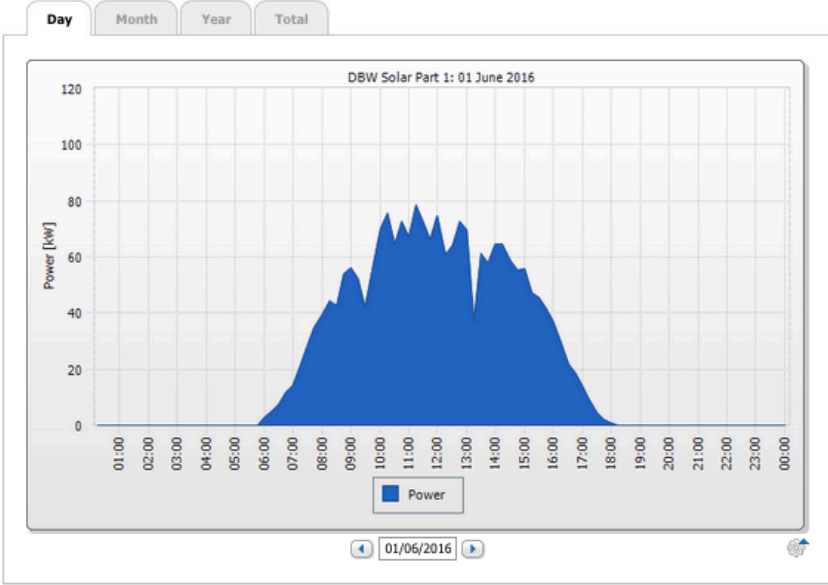
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**High level and comfortable  
monitoring and performance  
control by WEB Portal**



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**German Quality in  
the important details**

To ensure lifetime and  
performance for  
20 years and more!



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# Integrated System Features in the DBW Solar Power System

## Unique Control Features included

### GRID AND SYSTEM PROTECTION

Safe disconnection of the Solar Power System in case of solar power is higher than demand, frequency disturbance in the grid or by external signal

### POWER CONTROL SYSTEM

Reduce solar power in a range of 0 to 100 % in case of solar power is higher than actual demand.

### POWER OPTIMIZATION

Integration of up to 5 consumers into the system, to increase solar yield and self consumption in combination with Power Control System.

# SOLAR GRID AND SYSTEM PROTECTION



Safe disconnection of the Solar Power System in case of :

- frequency disturbance in the grid
- solar power exceeds the demand
- Voltage disturbance in the grid
- or by external signal.

A certain voltage and frequency range is set in the control. In case parameters are out of range (instability of the grid), the system disconnects for protection of the solar power system

# SOLAR POWER CONTROL SYSTEM



Reduce solar power in a range of 0 to 100 % in case of solar power is higher than demand and energy utility does not allow feed in of solar power.

Efficient control in combination with metering of power and demand.

# SOLAR POWER OPTIMIZATION



Integration of up to 5 consumers into the system, to increase solar yield and self consumption in combination with Power Control System.

Four consumers with fixed power and 1 consumer with up to 5 KW 0 to 100 %.

1<sup>st</sup> level Power Optimization

2<sup>nd</sup> level Power Control



# What an industrial grid connected Solar Power System can do?



- Reduce energy costs
- Ensure predictable and stable electricity price
- Help to reduce your peak power
- Help to improve balance of phases within internal grid
- Help to optimize power factor and to stabilize your grid

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