

Renewable Energy and SMEs

Proof of concept

July 2014



ACWA Power was founded in 2004 in Saudi Arabia



Developer/Investor + Operator

Electricity Generation + Desalinated Water Production

- Saudi Arabia 13% of Electricity + 40% of Desal Water
- Oman 12% of Electricity + 17% of Desal water
- Jordan 59% of Jordan's Electricity

15,300 MW + 2.24 Million m³/day water

Leading Developer of Middle Eastern Origin

- Now operating in GCC Region + Jordan + Turkey + Morocco + South Africa + Mozambique + Bulgaria

Owned by 10 Saudi conglomerates and 2 public sector entities



Our Involvement in Renewable Energy

Corporate target of 5-10% of energy production from renewables by 2030
Building a portfolio of renewable energy assets of 1500 MW by 2017

Our approach to renewable energy is to deliver the lowest whole life cost through out the contracted period to future proof against inevitable reductions in tariffs.



Photo Voltaic Technology:

- Own and operate a 60MWp plant in Bulgaria
- Submitted a tender for a 100MW in Makkah



Concentrated Solar Power (CSP) technology:

- 50MW Bokpoort, South Africa (under construction)
- 160MW Noor 1, Ouarzazate, Morocco (under construction)

RE & SMEs Case Studies



Noor 1, Ouarzazate, Morocco Local Value Retention

160 MW CSP Project with 4 hours storage
value chain providing ~ \$0.5B to
Moroccan economy

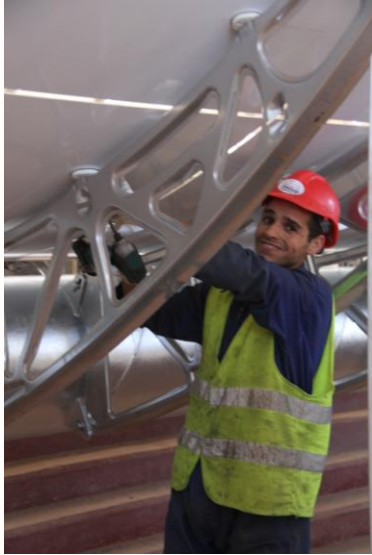
At least 40% of EPC value going into local
content which could be increased to
±65% for the next project

±90% of O&M value retained locally

18.7 USC/kWh tariff - 28.6% cheaper than
next competitive bidder, saving MASEN
~\$250M over the contract term



Moroccan SME and Community involvement – Noor 1

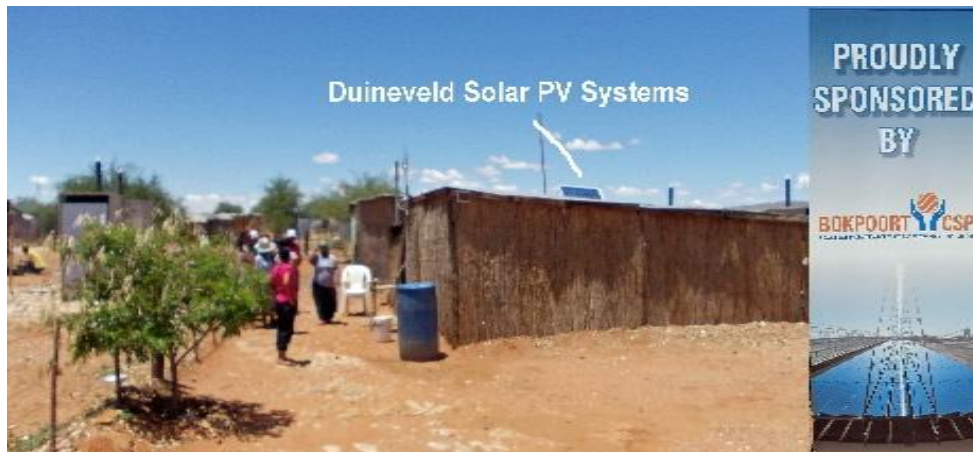


Site canteen
operated by
local SME

Local produce
sold on site



SMEs and Communities - Bokpoort, South Africa



50MWp PV Karadzhalovo, Bulgaria

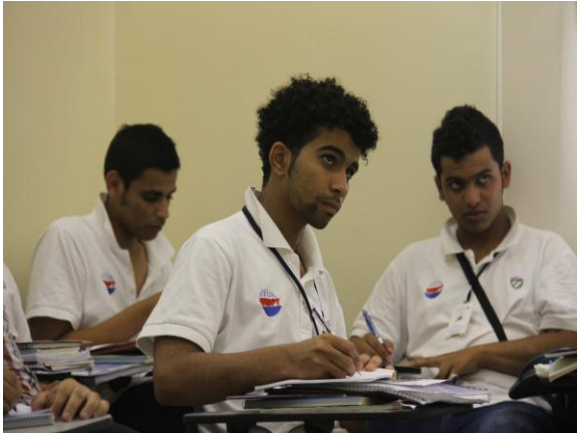
ZERO HARM
بدون اذى



AcWA POWER

RE & SMEs Capacity Building of Transferable Skills

Saudi Arabia – Higher Institute for Water & Power Training



- ✓ Founded by ACWA Power and NOMAC, ACWA Power O&M Company
- ✓ Operating at capacity, 590 trainees from sector and local companies
- ✓ 2 ½ year focused training program
- ✓ 1st batch of 212 trainees joined job market in Jan 2014
- ✓ Supported by TVTC + 12 Other Companies
- ✓ Al-Hariri Best Arab Training Institute for Operations and Maintenance training

HIWPT Solar Program

Solar Program starts with a preparatory year
English language, Work Ethics, Math and sciences required as
pre-requisites. Then splits into two tracks

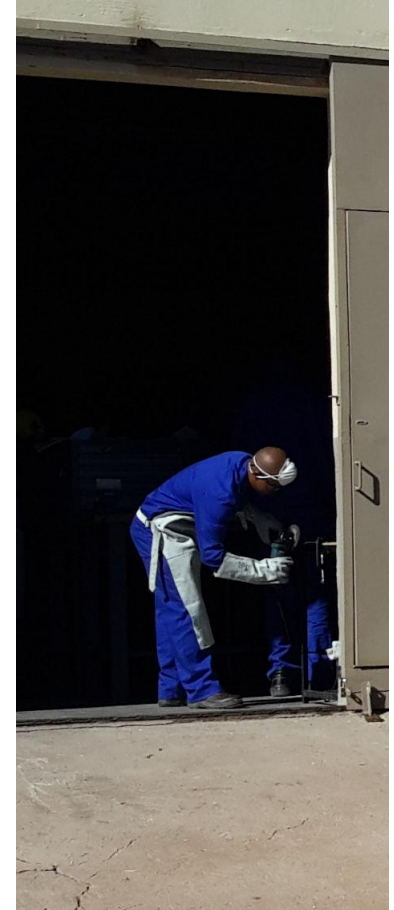
Concentrated Solar Power (CSP) 3 year program



Photovoltaic Power (PV) 2 year program



Community Skills Development – Bokpoort CSP



Conclusions - RE & SMEs

- SMEs are gaining from and supporting utility RE programs
- SMEs participation and involvement facilitated by:
 - Local content policies of national energy institutions
 - Active support of private sector and developers
 - Integration of local content KPIs into EPC procurement processes
- SMEs and communities benefit from RE projects via:
 - Direct employment over entire project life cycle
 - Direct supply of ancillary services and products
 - Indirect promotion of regional and local economic development
 - Development of technical vocation skills that are both transferable and supportive of entrepreneurial activities

SMEs need to be supported to identify direct AND indirect opportunities

Thank you

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The logo for ACWA POWER, featuring a stylized 'A' followed by the text 'CWA POWER' in a bold, sans-serif font.