

16th Energy Investment and Regulation Conference

September 25-26, 2017  Astana, Kazakhstan



Shuaa Energy 1 PSC & NOOR PV I Program

Abid H. Malik

Managing Director ACWA Power Turkey & Kazakhstan



A PARTNER OF CHOICE

September 2017

ACWA POWER VISION AND MISSION

Our commitments

Our Mission

To reliably deliver electricity and desalinated water at the lowest possible cost in our target countries

Our Vision



The ingenuity and entrepreneurship of the private sector makes available electricity and desalinated water in a reliable manner to support social development and economic growth of nations.

Our Core Values



Safety

Everything we do relies upon the safety and well-being of our workforce and the communities around us.

We care about minimizing environmental impact and are committed to safely and reliably delivering power and desalinated water to the world.



People

We accomplish more as a team rather than as individuals.

Our success in partnerships comes from cultivating the diversity, innovation and courage of our people.



Performance

We are a performance driven company building an enduring legacy by continually improving through operational excellence.

We put systems, processes, policies and governance mechanisms in place to advance our core business and community objectives.

ACWA POWER BUSINESS MODEL

Focus on **developing**, **investing** in and **operating** a world-class portfolio...

DEVELOP

We win bids as lead developer, by partnering with the best and focusing on cost leadership.

CLEAR FOCUS

- Investment grade and sovereign-linked off-takers
- Long term PPAs with Government guarantees
- Low merchant risk
- Fuel agnostic, technology neutral

INVEST

While taking significant, long-term stakes in all our plants

GROWING PORTFOLIO

- **We invest in all plants we develop...**
- ...which **deliver increasing cash flows** over the life of the asset...
- ...and give us a large **scalable investment platform**

OPERATE

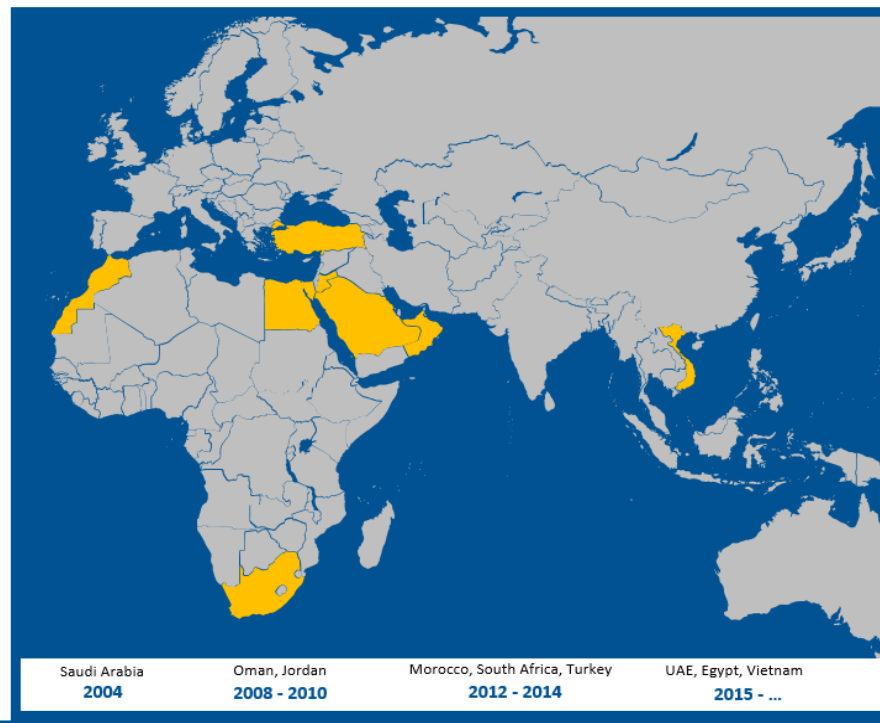
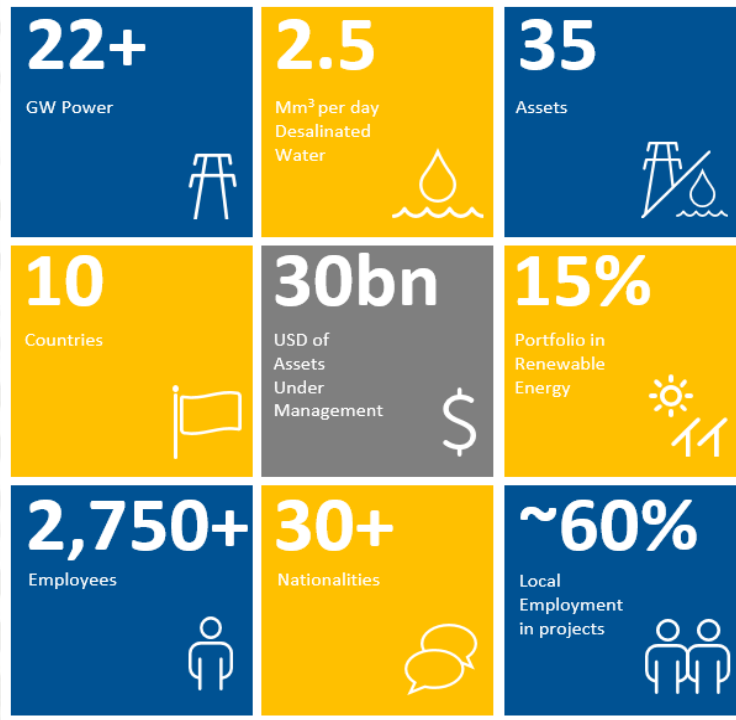
We operate and manage our plants to the highest global standards

MATURING O&M BUSINESS (NOMAC)

- **Fully captive** to ACWA Power
- Delivering the **highest standards of safety and quality**

ACWA POWER PORTFOLIO AND PRESENCE

In 10+ years we have become the **second largest power & water developer** in the GCC region, and a name to **contend with internationally**



ACWA POWER HIGHLIGHTS



World's Largest

World's Largest CSP parabolic trough plant

Bokpoort CSP IPP,
South Africa



CSP solar power plant with storage

Ouarzazate CSP IPP,
Morocco



Combined cycle gas-fired power plant

Qurayyah IPP,
Saudi Arabia



Power and desalination plant

Marafiq IWPP,
Saudi Arabia



Barge-mounted desalination plant

Bowarege IWP,
Saudi Arabia



World's Lowest

Tariff for utility scale solar power generation

DEWA Solar PV IPP, UAE



ACWA POWER PARTNERS

...and by building close, fair and transparent relationships with exceptional companies

Offtakers



Co-Investors



EPC Contractors



ACWA POWER SHAREHOLDERS

We are the partner of choice, with respected supportive shareholders

71%



Founding Shareholders

- ACWA Holding (Abunayyan Group & Al-Muhaidib Group)
- Al Rajhi Holding Group Company (ARGH)

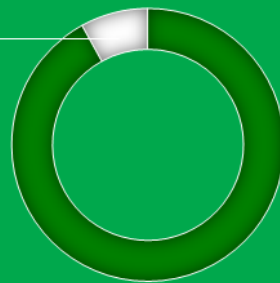
21%



Institutional Investors

- **Sanabil Direct Investments Company**, a wholly-owned subsidiary of the Public Investment Fund of Saudi Arabia
- **Saudi Public Pension Agency**
- **International Finance Corporation (IFC)**, a member of the World Bank Group

8%



Strategic Investors

- **Al Mutlaq Group**
- **Omar Kassem Alesayi Group**
- **Badad International Co.**
- **Al Toukhi Group**
- **Ali Zaid Al Quraishi & Brothers Group**

“ We operate voluntarily under global standards of corporate governance and risk management, to ensure reliability and trust with all key stakeholders. ”

ACWA POWER LEADERSHIP

Our expert Board of Directors is reinforced by an experienced Advisory Board



Mohammed A. Abunayyan
CHAIRMAN

- ACWA Holding
- Chairman of Abunayyan Holding



Sulaiman A. K. Al-Muhaidib
BOARD MEMBER

- ACWA Holding
- Group Chairman of Al Muhaidib Group



Ahmed S. Al Rajhi
BOARD MEMBER

- Al Rajhi Group
- Vice Chairman of Al Rajhi Group



Ibrahim M. Al Romaih
BOARD MEMBER

- Sanabil Direct Investments
- CEO of Sanabil Direct Investments



Mohammed T. Al Nahas
BOARD MEMBER

- Public Pension Agency
- Governor of Saudi Public Pension Agency



Tariq M. Al-Mutlaq
BOARD MEMBER

- Independent Member
- Managing Partner and Board Member of Almutlaq Group



Rasheed A. Al-Rasheed
BOARD MEMBER

- ACWA Holding
- Formerly, CEO of ACWA Holding



Mohsen A. Khalil
BOARD MEMBER

- Independent Member
- Previously, Global Head of the Climate Business Group of IFC and Director of IFC's Central Asia, Middle East and North Africa Department



Federico Tauber
BOARD MEMBER

- Al Rajhi Group
- CEO of Gemstone Real Estate Development LLC



David Crane
Board Member

- ACWA Holding
- Formerly President and CEO of NRG Energy, NRG Yield, International Power

Saudi Arabia	Saudi Arabia	UAE	China	Egypt	Jordan	Morocco	South Africa	Spain	Sultanate of Oman	Turkey	Vietnam
Building 1, Ground Floor, Business Gate Office Complex, Airport Road P.O. Box 22616 Riyadh 11416	King Abdulaziz Branch Rd, <u>Ash Shati</u> , Jeddah, 23613	The One Tower, 41 st Floor, Barsha Heights, Sheikh Zayed Road, P.O. Box 30582 Dubai	2101 Tower B, Ping An International Financial Center, No. 1-3, Xin Yuan Nan Lu, Chao Yang District, P.O. Box 10027, Beijing	Plot 176, Second Sector, City Center Giza Systems Building, New Cairo, Cairo	Amman-Khelda, <u>Al Khaldeen</u> Suburb, <u>Al Hakam</u> Bin Amro Street - Bldg No. 22 P.O. Box: 2564 Amman 11953	65, Avenue Mehdi Ben Barka, <u>Souissi</u> , <u>Rabat</u> 10100	7th Floor, 90 Grayston Drive, Sandton, 2196	<u>Empresarios</u> <u>Agrupados</u> <u>Calle Magallanes</u> 3, 28015 Madrid	South Lobby Roof Top, Grand Mall, <u>P.O.Box: 163</u> , PC: 136, <u>Al Khwair</u> , Muscat	Barbaros Plaza, Emirhan Caddesi, No.113 Kat.19, Dikilitas, Besiktas Istanbul	11th floor, BIDV Tower 194, Tran Quang Khai St., Hoan Kiem District, Hanoi
T: +966 1 2835555 F: +966 1 2835500	T: +966 12 618 9000	T: +971 4 5090555 F: +971 4 3859625	T: +86 10 5979 2330 F: +86 10 8438 1078	T: +202 23 225 500	T: +962 (6) 534 0008 F: +962 (6) 535 7210	T: +212 537 287 878 F: +212 537 714 165	T: +27 117224100			T: +90 212 259 3396 F: +90 212 259 3397	T: +84 43 935 2966 F: +84 43 935 2969

www.acwapower.com

comms@acwapower.com

Shuaa Energy 1 PSC

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Shuaa Energy 1 PSC

Project Overview

(1/2)

Main Project Data	
Project Name:	Shuaa Energy
Off-taker:	DEWA (Dubai Electricity and Water Authority)
Type:	Greenfield Independent Power Project
Plant name:	Shuaa Energy 1 PSC
Project location:	Al Maktoum Solar Park, 50 km South-East of Dubai
Scope:	Develop, Build, Own and Operate – PPA-BOO 25 YEARS
Capacity (MW):	260MWp (200MWac)
Technology:	SOLAR PV (Supplier – First Solar)

Shuaa Energy 1 PSC

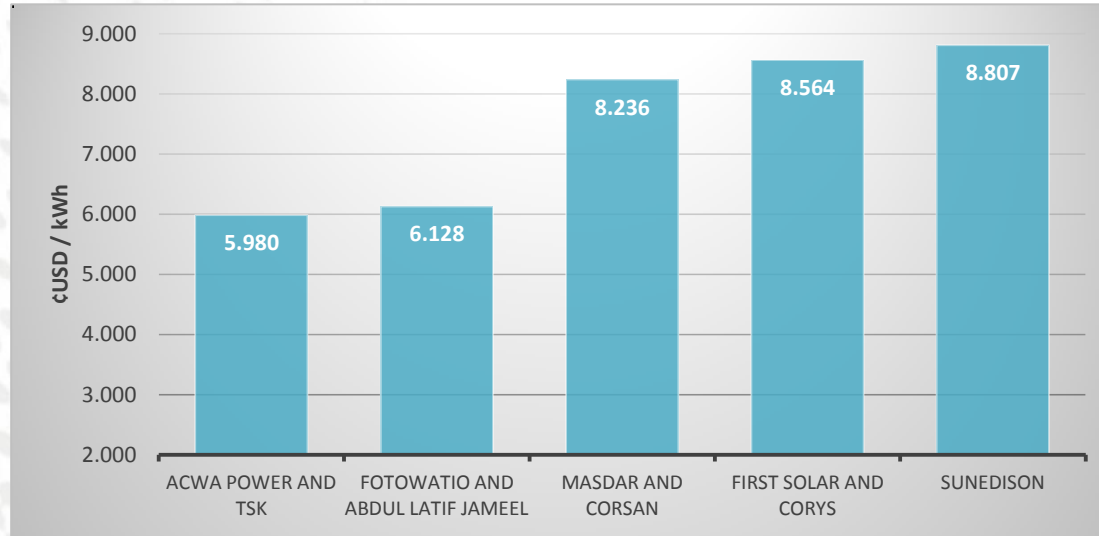
Project Overview

(2/2)

Key Project Parties	
Sponsors:	<ul style="list-style-type: none">• (51%) DEWA• (75%) Consortium ACWA Power – TSK
Lenders	The First Gulf Bank (FGB), The Saudi National Commercial Bank (NCB) and Samba Financial Group
Technology Supplier	First Solar PV modules – Fixed tilt thin film with frameless panels
EPC Contractor	TSK Construction Contractor
O&M Contractor:	NOMAC
Off-taker:	DEWA (Dubai Electricity and Water Authority)
PPA:	ICOD + 25 year PPA with DEWA

Shuaa Energy 1 PSC

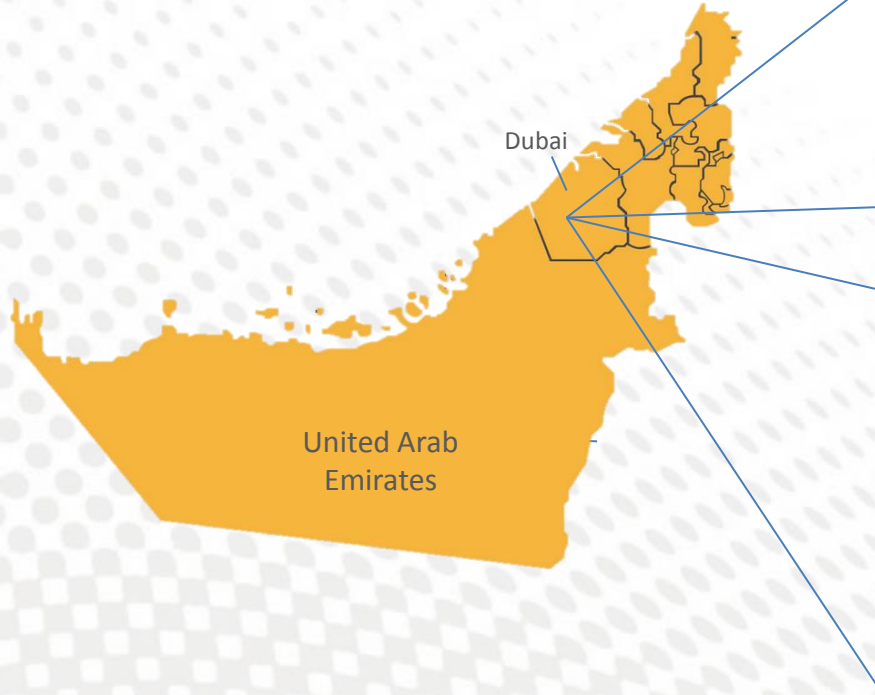
Results of the Tariff Submission



- Only top 5 tariff shown in the above table. ACWA Power submitted the lowest tariff at 5.980 cUSD/kWh and won the bid among 24 pre-qualified consortia.

Shuaa Energy 1 PSC

Site Locations



NOOR PV I Program

NOOR PV I Program



NOOR PV I Program

Project Overview

(1/2)

Main Project Data			
Project Name:	NOOR PV I Program		
Off-taker:	MASEN – Moroccan Agency for Solar Energy (indirect PPA with ONEE, Moroccan national utility)		
Type:	Greenfield Independent Power Project		
Plant name:	NOORo IV	NOOR Laayoune	NOOR Boujdour
Projects locations:	Ouarzazate	Laayoune	Boujdour
Scope:	Develop, Build, Own, Operate and Transfer (BOOT) for the three plants – ICOD + 20 years		
Capacity (MW):	55 MWac	65 MWac	15 MWac
Technology:	Poly-Crystalline PV modules mounted on single-axis trackers (Supplier – Chint Solar)		

NOOR PV I Program

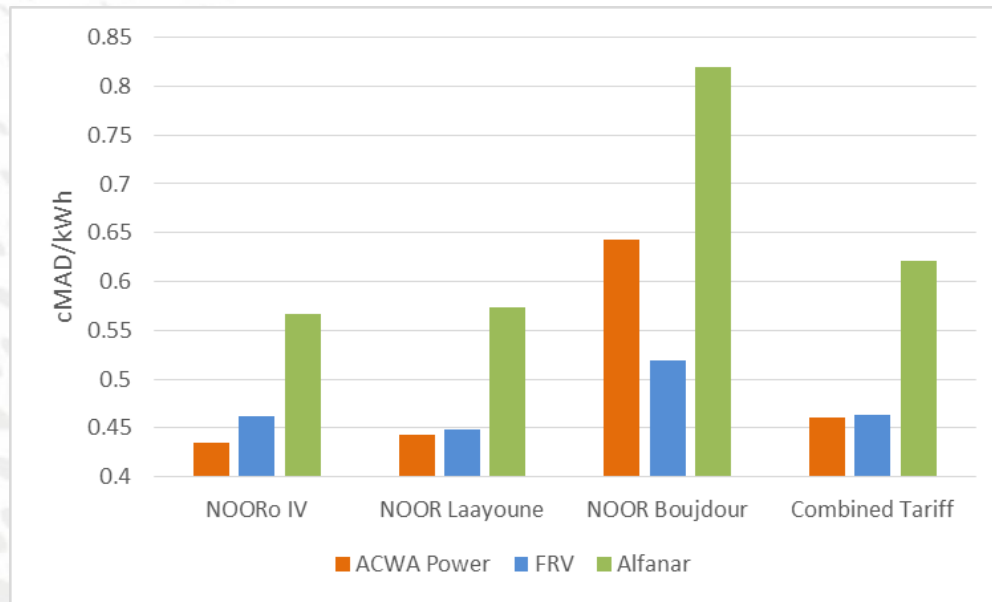
Project Overview

(2/2)

Key Project Parties	
Sponsors:	<ul style="list-style-type: none">• (25%) MASEN Capital• (75%) Consortium ACWA Power – Chint Electric
Lenders	MASEN (to on-lend to the Project Companies from KfW for Ouarzazate and from a locally issued green bond for Laayoune & Boujdour)
Technology Supplier	Chint Solar PV modules – Poly Crystalline technology
EPC Contractor	Sterling & Wilson / Shapoorji Pallonji / Chint Solar
O&M Contractor:	O&M Company (1 SPV for each plant) <ul style="list-style-type: none">• (25%) MASEN Capital• (75%) NOMAC / Ingeteam
Off-taker:	MASEN (ONEE)
PPA:	ICOD + 20 years Parties – MASEN & Project Companies for each project.

NOOR PV I Program

Results of the Tariff Submission



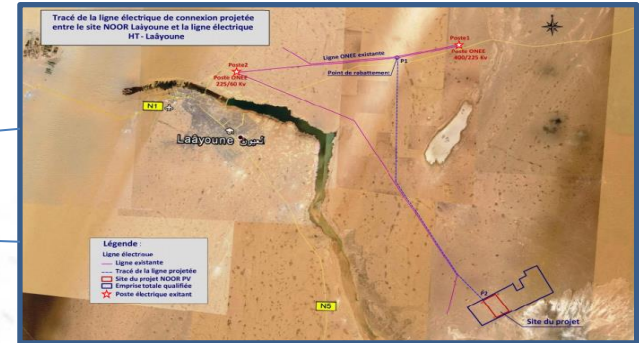
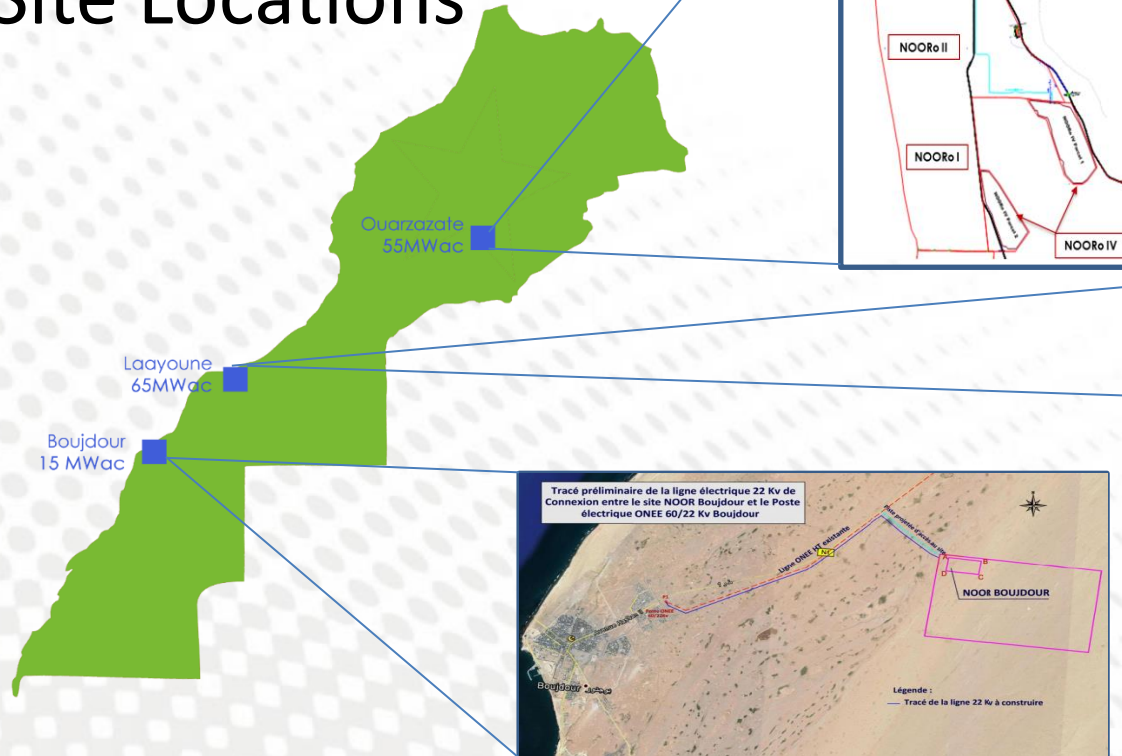
- Out of the 20 qualified bidders, three (3) consortia submitted an offer – ACWA Power/Chint Electric, FRV and a newly formed consortium led by Alfamar/Building Energy/TBEA Sunoasis.
- **ACWA Power submitted the lowest tariff at 46.14 cMAD/kWh (equivalent to 4.79 cUSD/kWh), with a 0.25% difference vs. the second lowest bidder, FRV.**

NOOR PV I Program

Type	•Three Solar PV Projects with a total of 135 MW _{ac} : Ouarzazate – Laayoune – Midelt
Scope	•Greenfield Independent Power Project (third phase of the Moroccan Solar Plan, tendered by MASEN) •Build, Own and Operate Transfer basis (BOOT) for 20 years
COD	•Scheduled Commercial Operation Date: •15 January 2018 for all three projects
NTP	•NTP: •15 Jan 2017 for NOORo IV and NOOR Laayoune •15 Jun 2017 for NOOR Boujdour
Financing	•MASEN on lending long term Project Finance loans •Ouarzazate – Project Finance loan from German development bank, KfW •Laayoune, Boujdour – Project Finance loan financed by a green bond issued by MASEN
Docs.	•Power Purchase Agreements; Shareholders Agreement
EPC	•Turn key, lump sum, date certain EPC Contract •EPC Contractor – Sterling & Wilson / Shapoorji Pallonji / Chint Solar (Chint Solar acting as the module supplier as well)
O&M	•O&M Joint Venture between NOMAC and Ingeteam •O&M Company to subcontract some of the specialist services to Ingeteam

NOOR PV I Program

Site Locations



THANK YOU FOR YOUR ATTENTION!



- Abid H. Malik



E-mail: amalik@acwapower.com



Web: <http://acwapower.com/>