



Expanding the Energy Market: an introduction to the renewable energy sector in Algeria

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Adel Baba-Aissa

Director of **Renewable Energy Partner**

a.babaaissa@rnepartner.com



About us

- Advisory boutique firm specialised in renewable energy projects in North Africa
- Providing a full range of services at all stages of the development of renewable energy projects from sourcing opportunities to providing local partner services
- Clients include solar module manufacturers, solar PV developers and wind developers
- Dedicated to carrying out own project development in Algeria



Outline

- 1) Context for renewable energy development in Algeria**
- 2) Solar potential**
- 3) Algerian renewable energy program**
- 4) Regulatory framework**
- 5) Renewable energy projects**
- 6) Conclusion**



Context for renewable energy developement in Algeria



Context

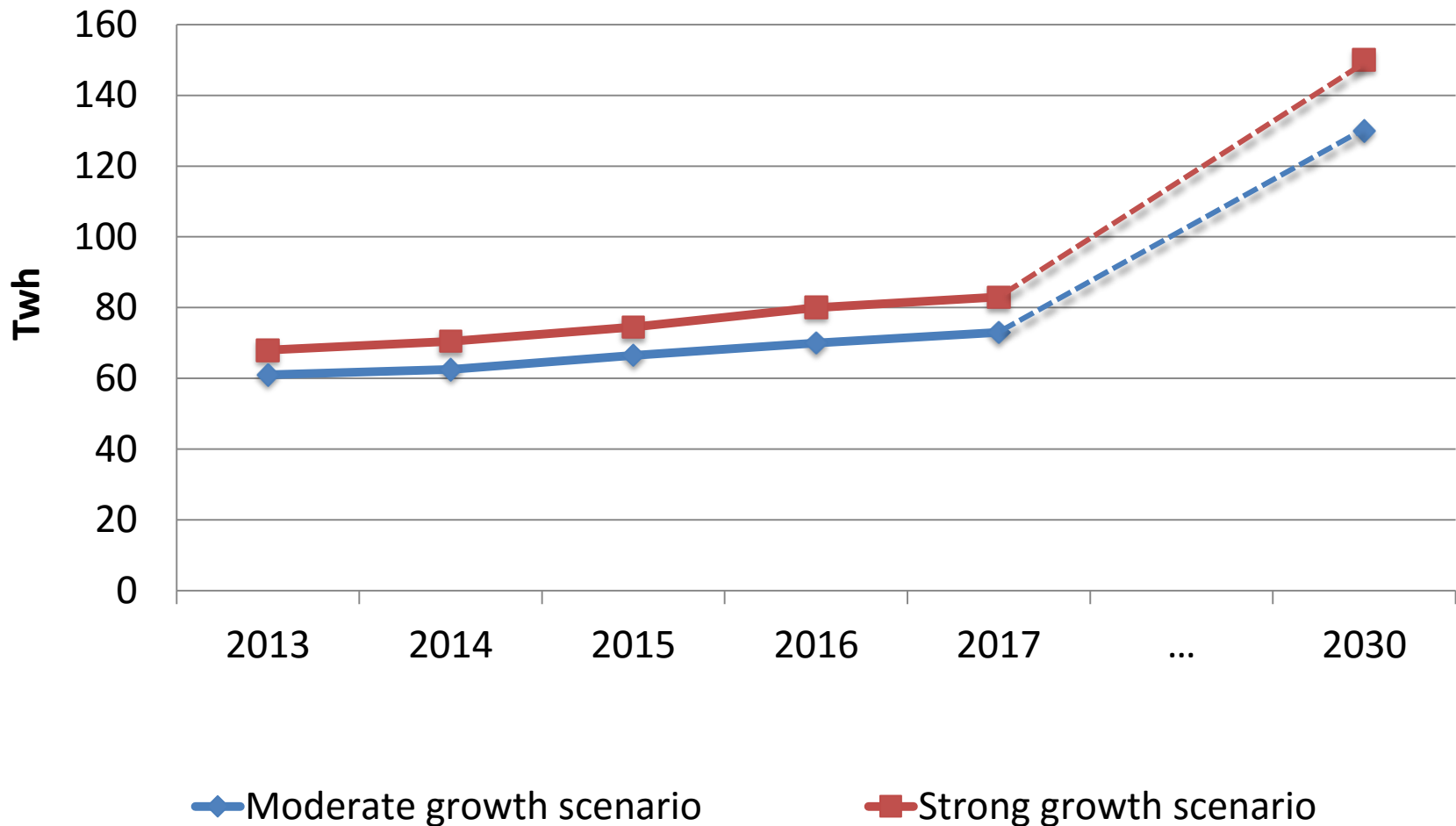
- Important solar potential
- Decreasing cost of renewables
- Uncertainty over oil and gas prices
- Uncertainty over oil and gas reserves
- Environmental issues and sustainable development

Challenges

- Development of alternative energy sources
- Development of a renewable energy industry
- Diversification of the national economy
- Becoming an actor in the world market of renewable energy



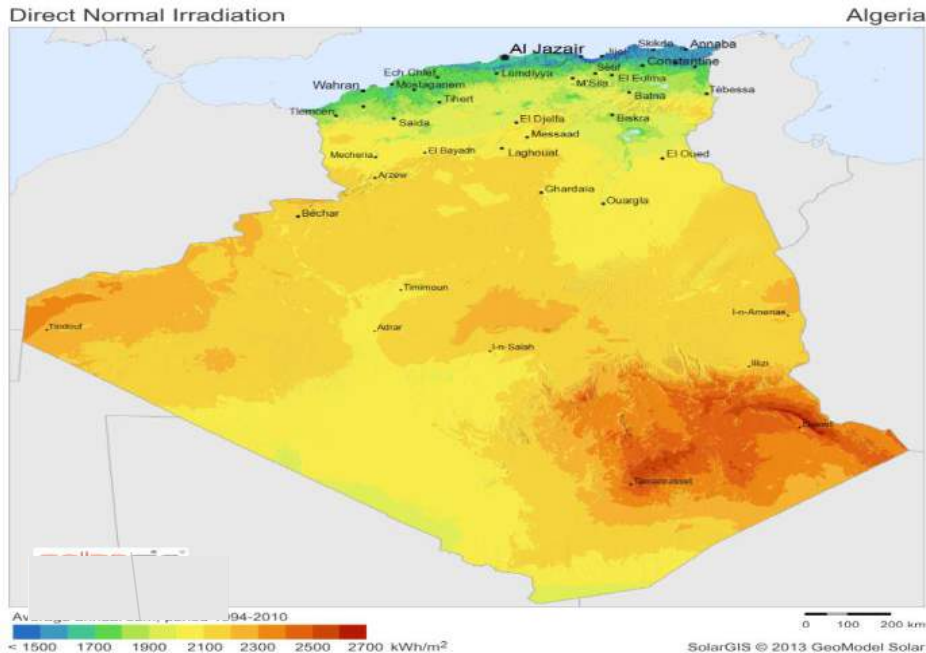
Growth of electricity consumption in Algeria



Solar potential



Solar map of Algeria



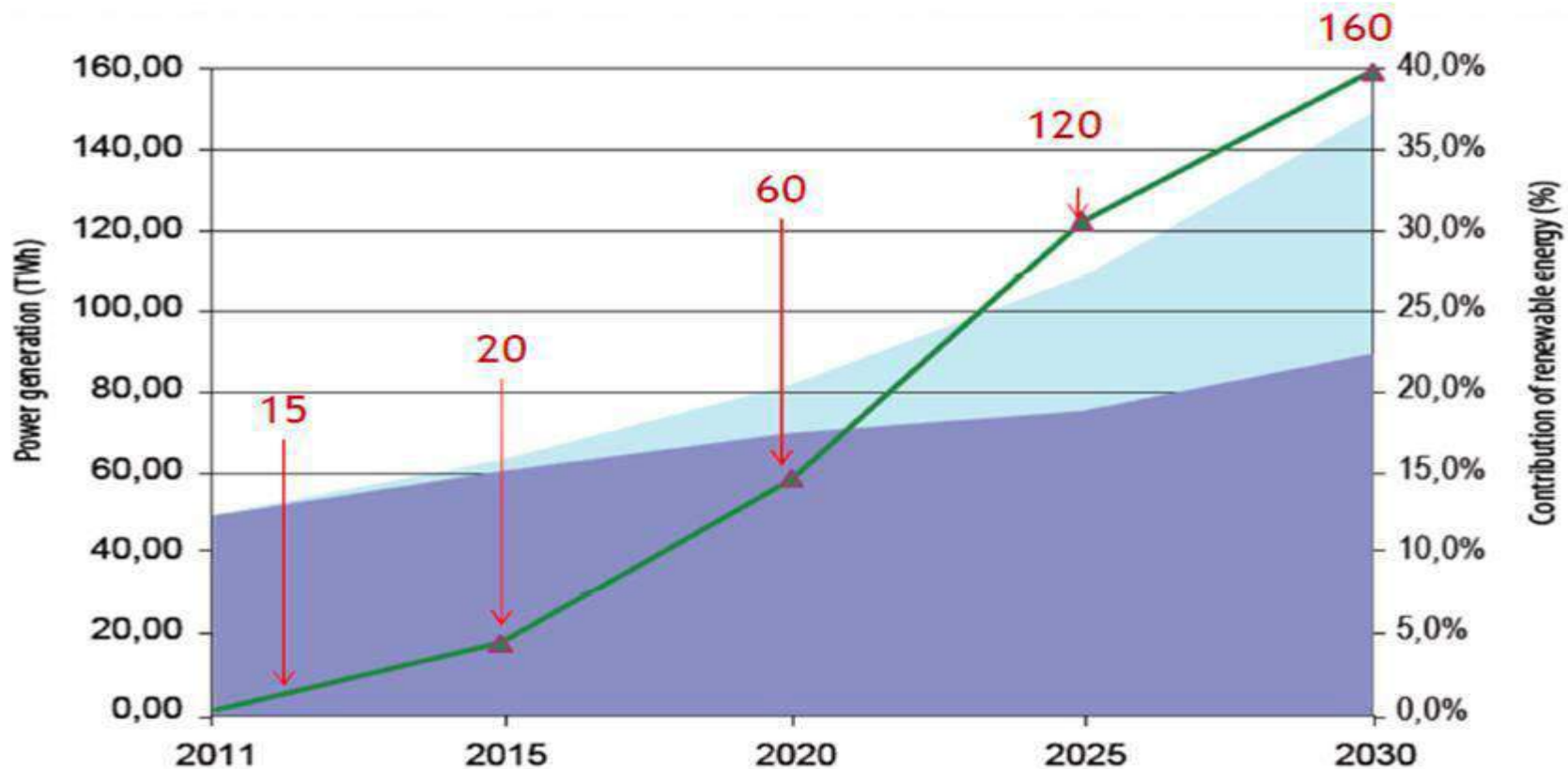
- **Average solar energy of 5.70 kWh/m²/day – solar PV**
- **Solar potential of about 170 000 TWh / year, is about 3000 times the current electricity generation of Algeria**

Regions	Coastal	Highlands	Sahara
Area (%)	4	10	86
Average duration of sunshine (hours / year)	2650	3000	3500
Average energy received (kWh/m ² /year)	1700	1900	2650



The renewable energy and energy efficiency program

Expected contribution of renewable energy in domestic power generation



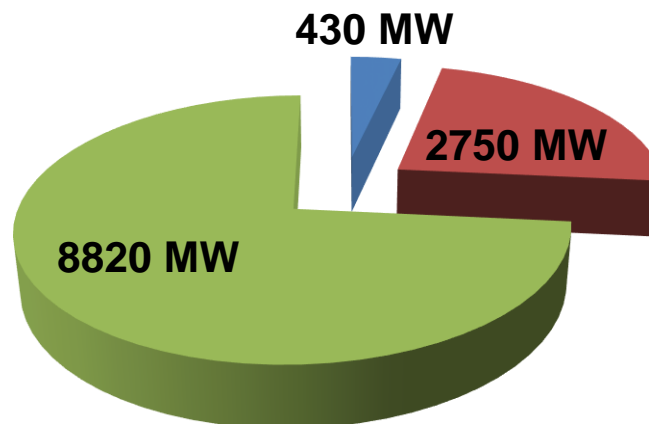
- Power generation from renewable sources (TWh)
- Conventional power generation (TWh)
- Contribution of renewables
- Number of projects

The deployment of the 12,000 MW of Solar PV

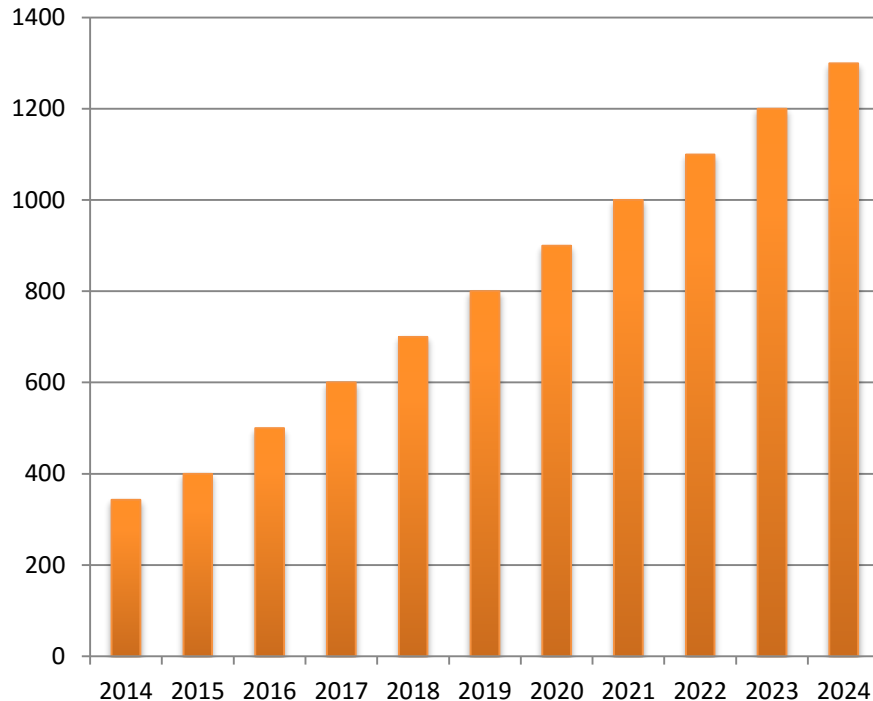


Power to be installed over the period 2011-2030

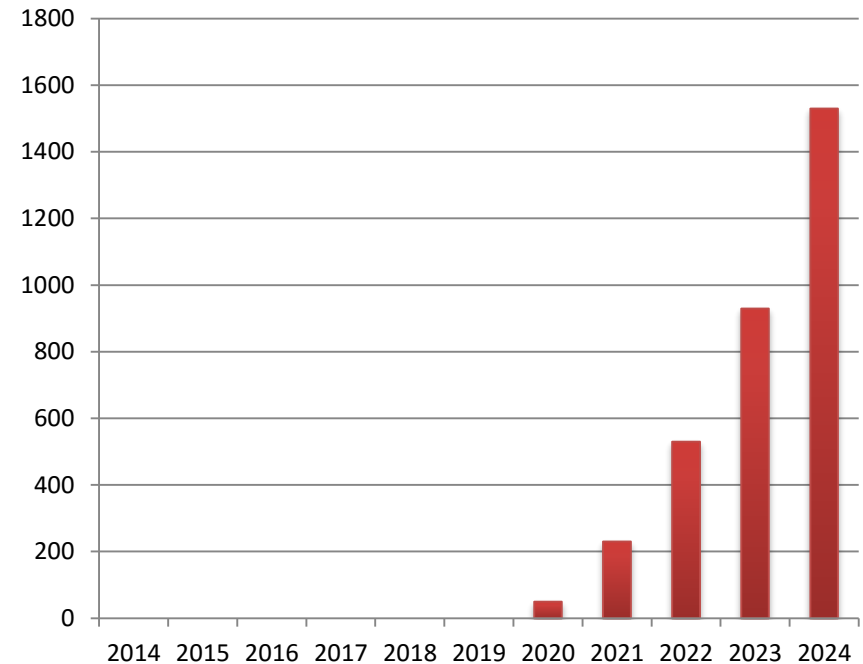
■ 2011-2016 ■ 2017-2020 ■ 2021-2030



Amount of solar power to be installed over the period 2014 - 2024



Solar PV (MW)



Solar CSP (MW)



Regulatory framework



- **The law n°99-09 of 28 July 1999 relative to the energy control lead to the creation of the National Fund for Energy Efficiency (NFEE)**
- **The law n°02-01 of 5 February 2002 regarding the electricity and the public distribution of gas**
- **The law n°04-09 of 14 August 2004 with regard to the promotion of renewable energy**
- **The Finance Act 2010 lead to the creation of National Fund for Renewable Energy (NFRE)**
- **Executive Decree no. 13-218 of 18 June 2013 relating to feed-in tariffs**
- **Ministerial order of 2 February 2014 fixing the tariffs for PV**
- **Executive Decree no. 15-69 of 11 February 2015 laying down the procedures for the certification of the origin of the renewable energy**



Solar PV feed-in-tariff

Adjustment limit	Number of hours in operation kWh/kW/Y	1 to 5 MW		> 5 MW	
		Phase I US\$/kWh	Phase II US\$/kWh	Phase I US\$/kWh	Phase II US\$/kWh
-15%	1275-1349	0.20	0.25	0.16	0.20
-10%	1350-1424	0.20	0.23	0.16	0.19
-5%	1425-1499	0.20	0.22	0.16	0.17
Reference output	1500-1574	0.20	0.20	0.16	0.16
+5%	1575-1649	0.20	0.18	0.16	0.14
+10%	1650-1724	0.20	0.16	0.16	0.13
+15%	≥1725	0.20	0.15	0.16	0.12

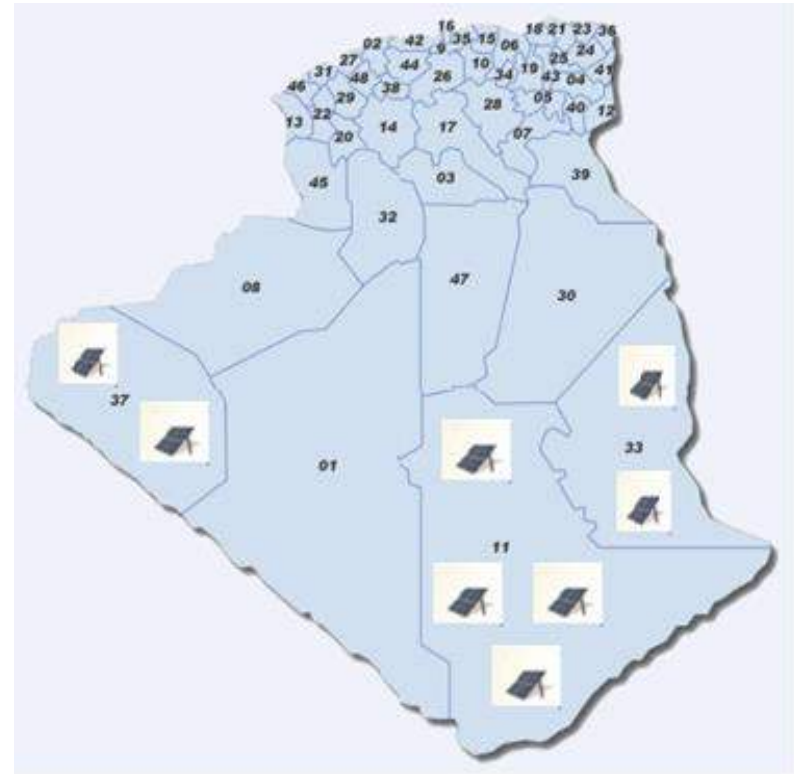
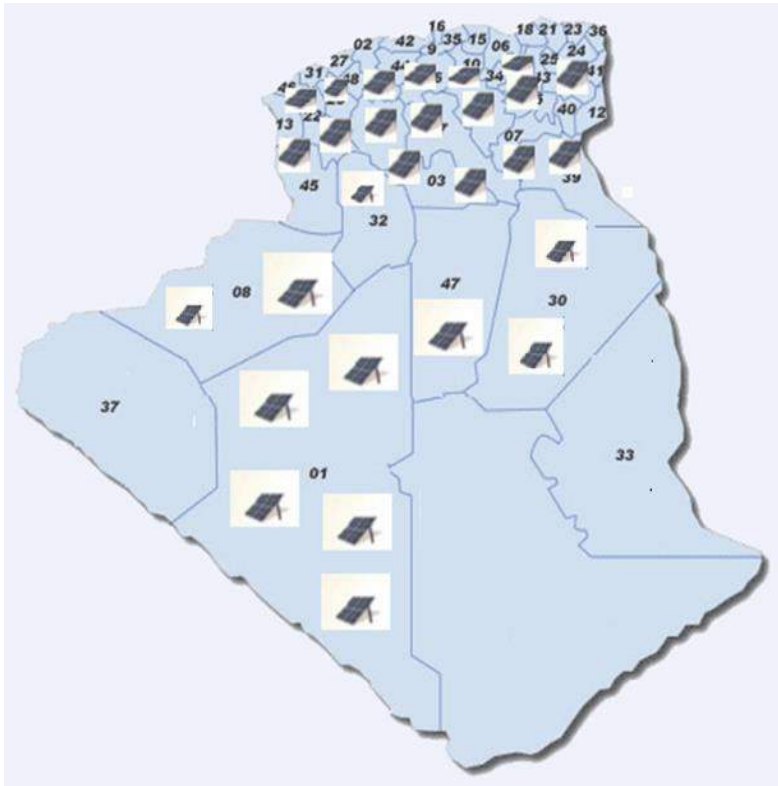


Projects in progress



Projects in progress (ctd)

- 258 MW solar PV plants awarded to YINGLI SOLAR
- 85 MW solar PV plants allotted to BELECTRIC



Location of the solar PV projects



A total capacity of 318 MW

Divided into four separate lots:

Lot n°1: Highlands East (90 MW)

Lot n° 2: Highlands Center (90 MW)

Lot n° 3: Highlands West (85 MW)

Lot n° 4 : PIAT (53MW)



A total capacity of 25 MW

Divided into 3 lots:

Lot n°1: Tindouf (09MW)

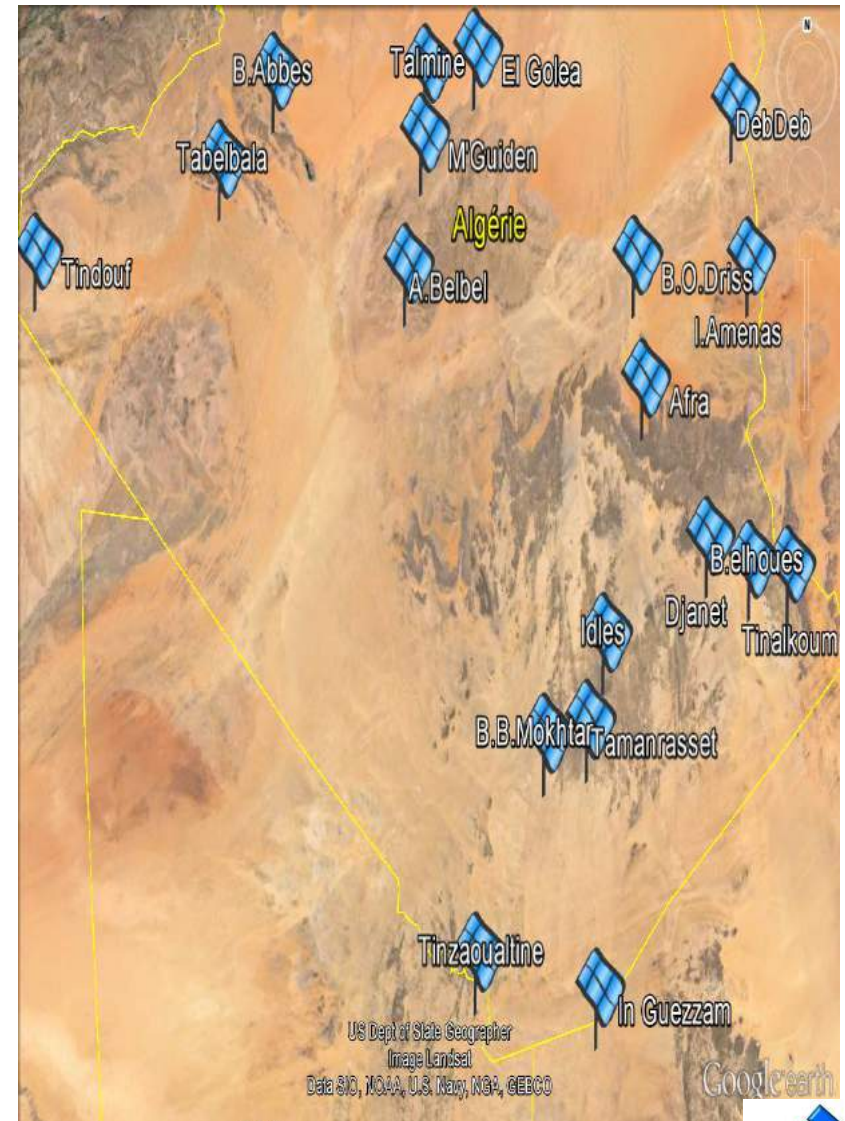
Lot n° 2: Djanet (03MW)

Lot n° 3: Tamanraset (13MW)

Upcoming projects

Solar photovoltaic installations in the southern isolated networks (RIS):

This consists of the construction of 19 solar power plants with a total power of 57 MW and for the hybridization of 25 existing conventional power plants.



Upcoming projects (ctd)

- 110 MW PV Project in the southern isolated networks (RIS)
- 20 MW CSP Project in Bni Abes (south west of Algeria)



Conclusion

- Over the next six years, construction of over **50** solar PV projects
- The global cost of the renewable electricity program is expected to reach between **60-100 billion US dollars**
- Expected volume of natural gas saved, over the period of 2011 and 2030, from the renewable power plants in operation is **300 billion m³**



Upcoming Events:

Renewable Energy Partner

**IS PROUD SUPPORTER OF SEUK
2015**



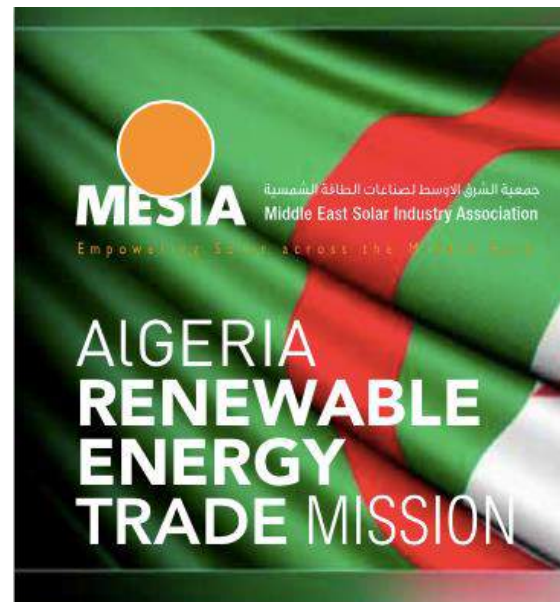
13-15 October 2015, NEC Birmingham

<http://uk.solarenergyevents.com/>

Renewable Energy Partner will participate as a Supporter in the next edition of SEUK to be held on the 13th to 15th October in Birmingham. In particular we are proud to be associated with the Focus on Algeria seminar: Towards 2030 which has been organised in collaboration with Renewable Energy Partner.

Renewable Energy Partner

**IS PROUD STRATEGIC PARTNER
OF**



**25 OCTOBER 2015
Sofitel, Algiers, Algeria**

Renewable Energy Partner

**IS PROUD TO SPONSOR ERA
2015**



<http://era.dz/2014/>

Renewable Energy Partner will participate as a Sponsor in ERA next edition to be held on the 26th and 28th October in Oran. The congress will be attended, the industry will come together to discuss the next steps for solar, wind and all clean energy sources development in Algeria.



Thank you for your attention

- contact@rnepartner.com
- 1st Floor
2 Woodberry Grove
London N12 0DR
UK
- www.rnepartner.com

