

Renewable Energy in Jordan

Eng.Maysoun Al-Rawabdeh/ NEPCO
Eng.Waleed Abu Jaradeh/ MEMR
Morocco/ Ouarzazate
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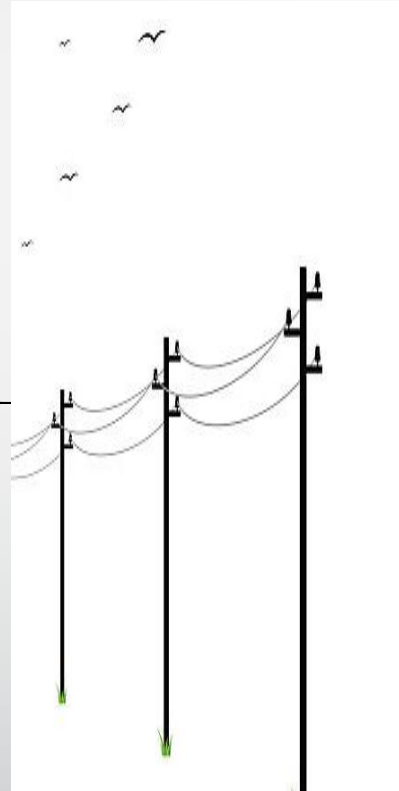
Key Figures of Jordan Electricity Sector 2017

Total Electricity
Generation: 20760 GWh

Renewables Contribution to
Installed Capacity: 16%

Total Electricity
Consumption: 17504 GWh

Renewables Contribution to
Gen. Electricity: 7.1%



Installed Capacity
(Conventional): 3800 MW

Installed Capacity
(Renewable): 730 MW

Peak Load: 3320 MW

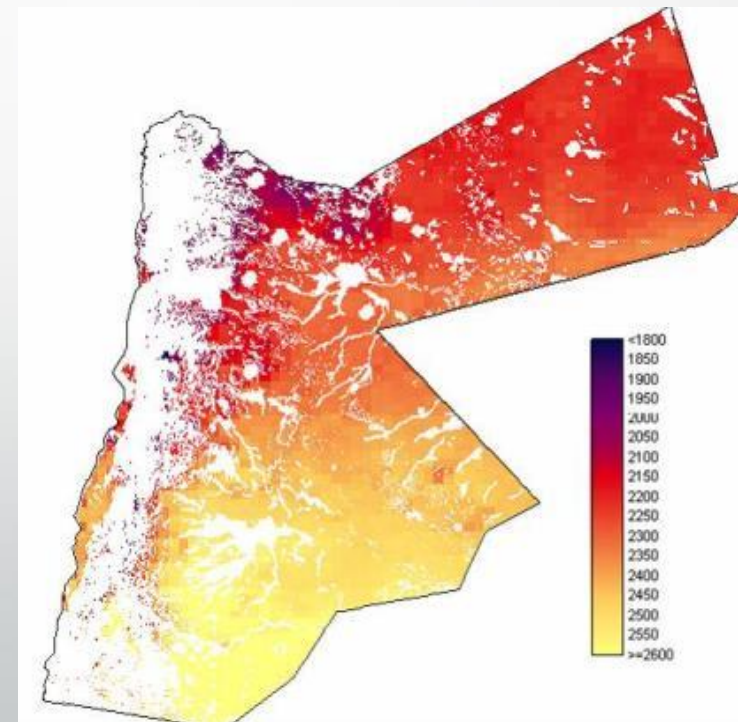
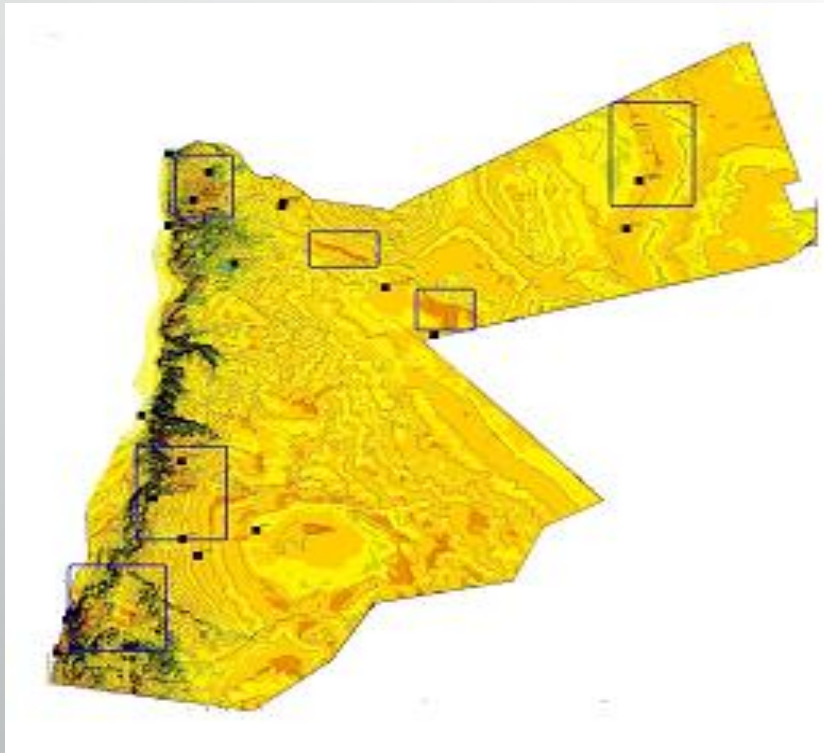
Per Capita Electricity
Consumption: 1741 KWh

Energy Strategy Main Goals



Jordan enjoys world class quality solar and wind energy resources

- Wind speeds could reach 9.0 m/s in some places.
- Wind projects are site specific,
- High solar radiation figures of 5 – 7 kWh/m² per day with about 300 sunny days per year.



RE Projects in Jordan – 2021



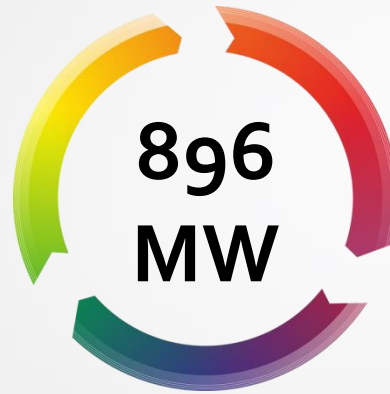
Total
Operational



756 MW



284 MW



Total Under
Construction



560 MW



336 MW



Total Under financial
close



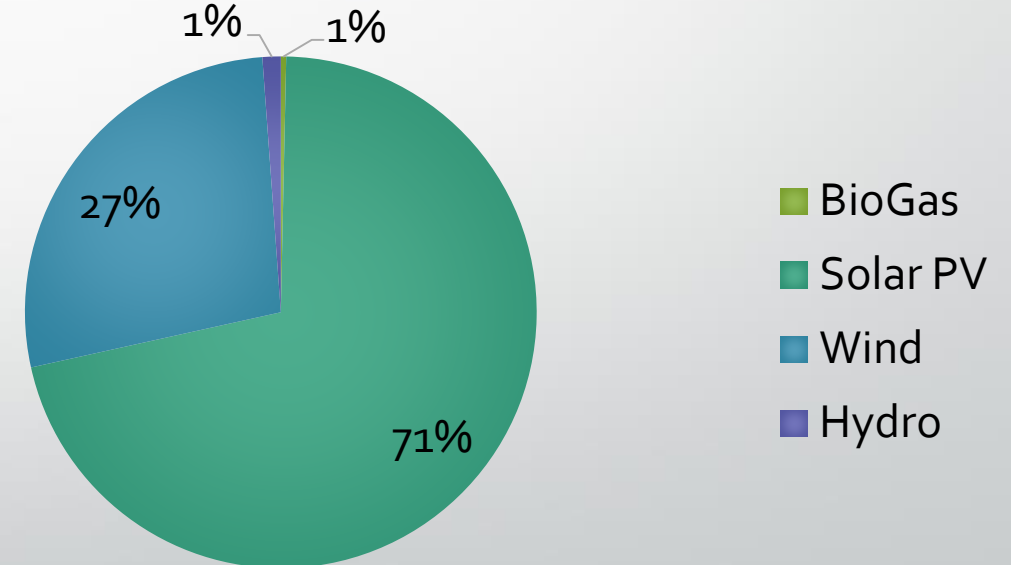
50 MW

Total Contracted Capacity: 2000

Distribution of RE Projects per Technology

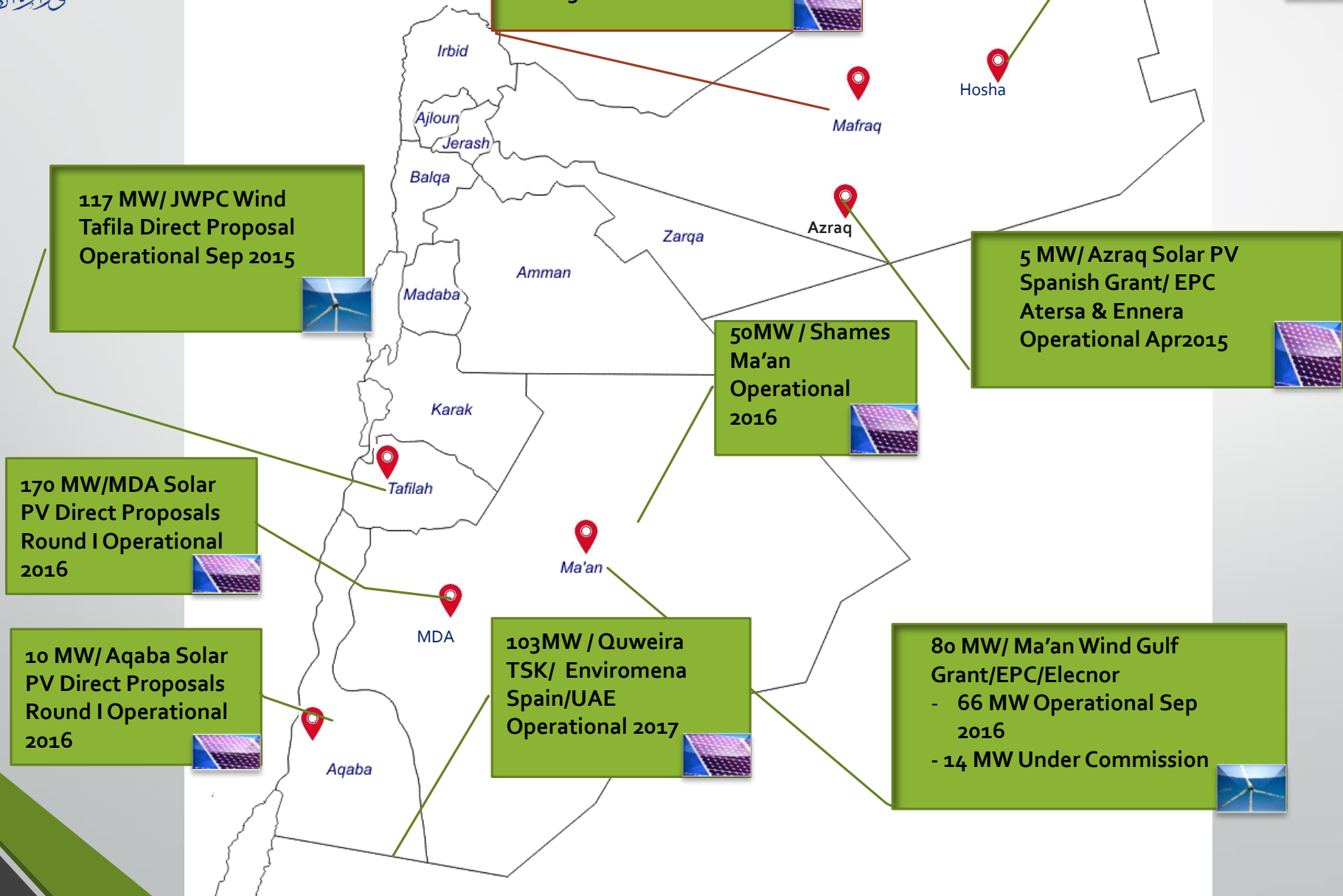
Technology	Sum of Capacity (MW ac)
BioGas	3.5
Solar PV	756.6
Wind	287.1
Hydro	12
Grand Total	1040

Current Distribution of Operational RE Projects per Technology

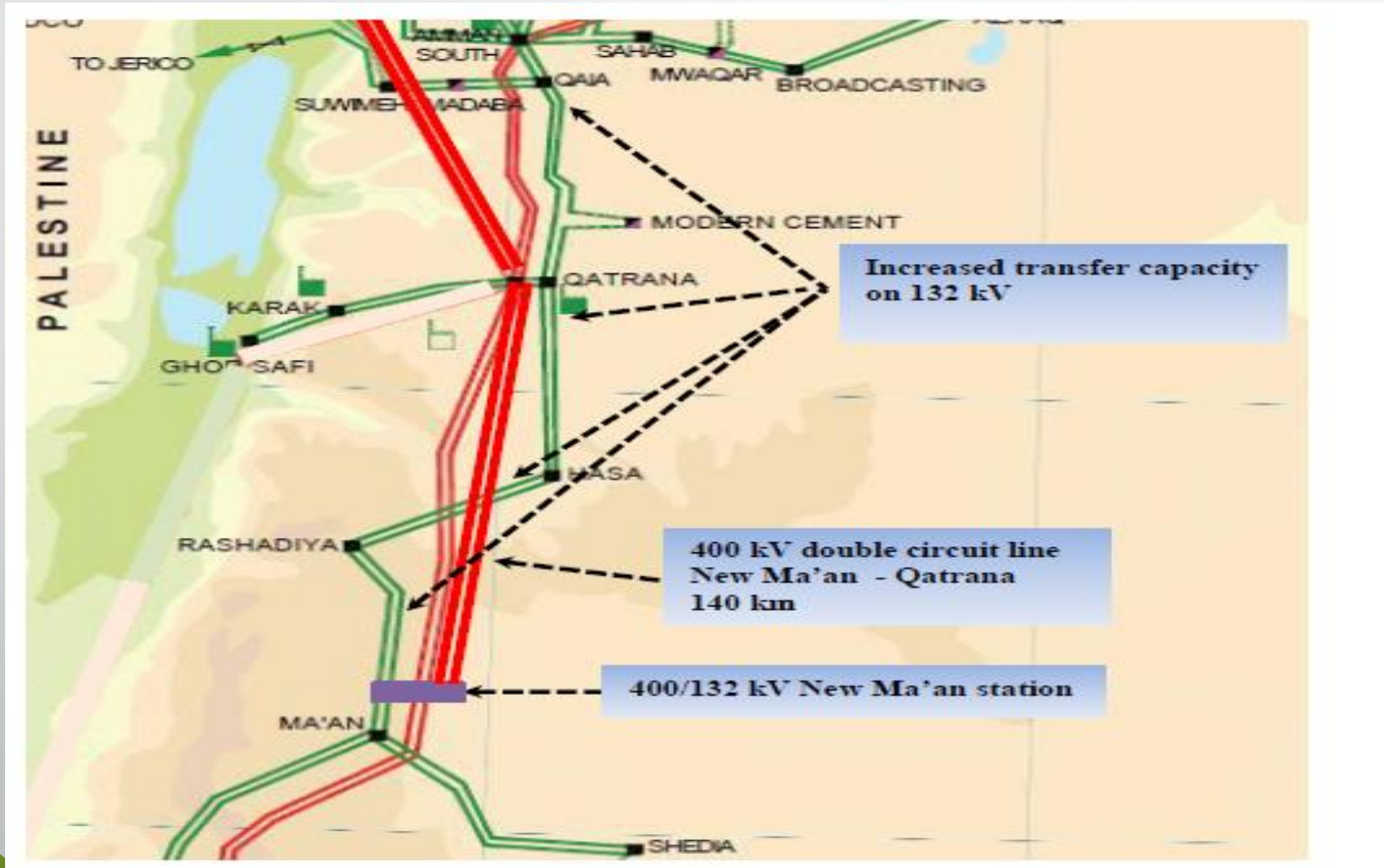




+ 132 MW of Small Scale Solar PV Operational Systems



Green Corridor



New Investment Opportunities

✓ Energy Storage/ Battery System (30) MW/(60 MWh):

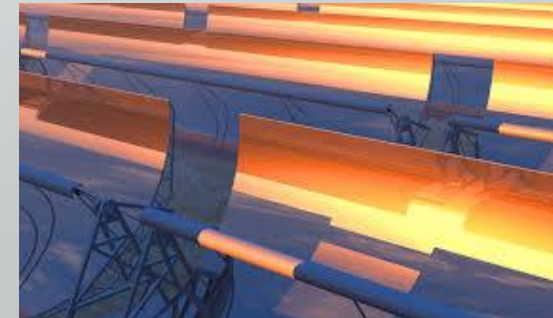
- The **rapid growth of energy projects** in Jordan has led to an interest in developing renewable energy storage which can help **stabilize electricity networks** by balancing intermittent production and **storing excess production for use.**
- As a **pilot project**, MEMR has announced a (30) MW/(60 MWh) storage project.
- **25 Developers** were qualified, expected to be operational by 2020



New Investment Opportunities

✓ Possible role of CSP in Jordan's future electric power system

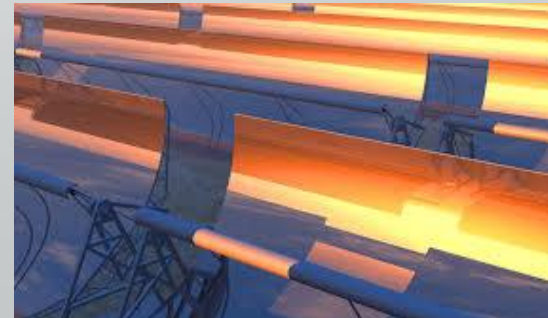
- The WB, (AfDB), (EIB), (AFD),(EC) and the German Government, have worked together to accelerate deployment of Concentrated Solar Power (CSP) in the Middle East and North Africa (MENA) region, using concessional financing available from the Clean Technology Fund (CTF), and other public and private sources.
- Under this Program, the Government of Jordan (GoJ) is interested in assessing its potential for CSP technology and requested such technical assistance to do so.



New Investment Opportunities

✓ Phases of the In-Depth Technical Assistance:

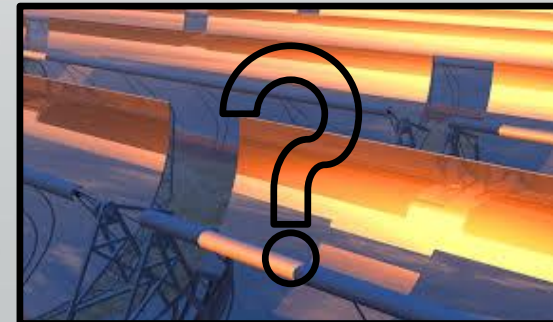
- Phase 1: Modeling the potential of CSP in Jordan's Future Energy Mix.
- Phase 2: Preparing the framework for a potential CSP project in Jordan.
- Phase 3: Decision to go ahead with CSP project, and its implementation.



New Investment Opportunities

✓ Factors stand against CSP:

- Low gas price.
- Low battery storage and pump storage price.
- High CSP price.



Thank You