



وَنَارِدُ الطَّاقَةَ وَالشَّرَوَةَ الْمَعْدِنِيَّةَ
الْمَمْلَكَةِ الْأُرْدُنِيَّةَ الْهَاشِمِيَّةَ



J R E E E F
Jordan Renewable Energy & Energy Efficiency Fund
صندوق تشجيع الطاقة المتجددة وترشيد الطاقة
MINISTRY OF ENERGY AND MINERAL RESOURCES
وزارة الطاقة والثروة المعدنية

Jordan Renewable Energy Development

Decentralized Renewable Energy Solutions in the MENA Conference

22 May 2017 (Cairo, Egypt)

Presented By :

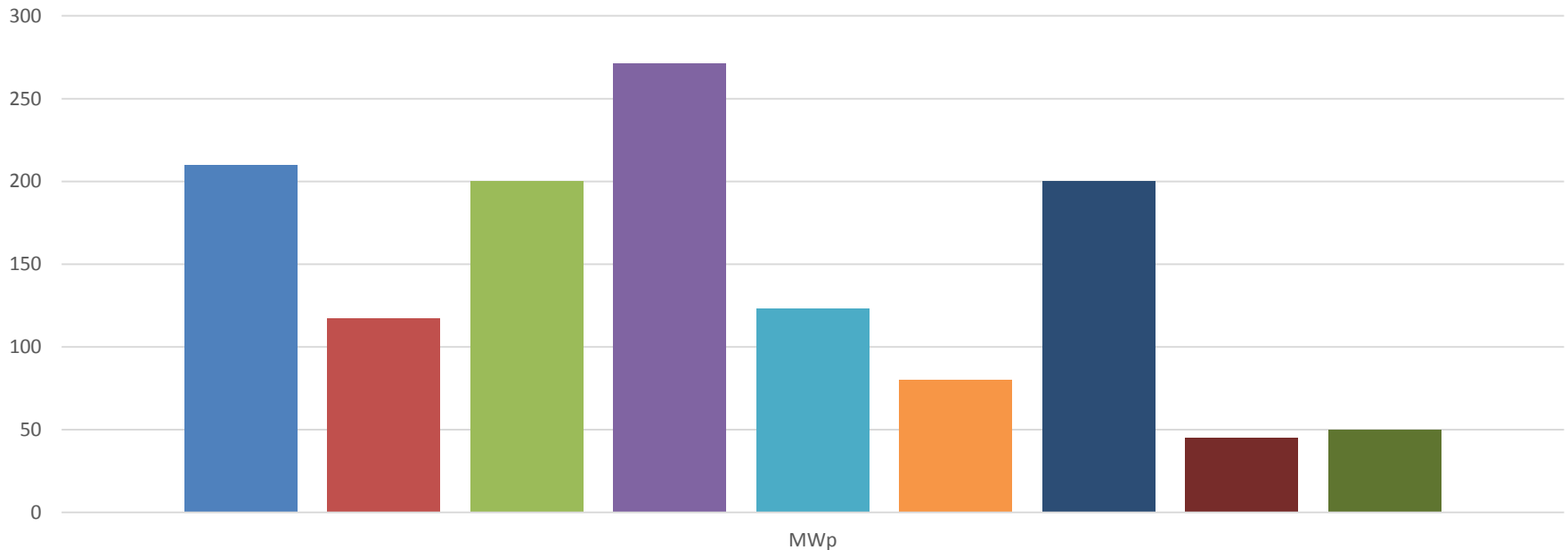
Eng. Diana Athamneh, JREEEF/MEMR

Legislative and Regulatory Platform

- RE&EE Law issued 2012.
- Bylaws issued by cabinet 2013-2015 (tax exemption, direct proposal, JREEEF).
- EMRC-issued regulations (reference price list, net-metering, wheeling).
- Two direct proposal rounds completed. Third qualifications released:
 - lowest price was \$0.06/kWh, Round II,
 - Round III (200MW Solar, 100MW wind) includes storage option).
- Standard agreements in-place (PPA, inter-connection, direct agreements, etc.).
- Projects are Bankable.

Achievements to-date (Utility-Scale)

RE Projects in Jordan (733MW Solar, 513MW Wind)



■ Solar Projects from Round I (210MW, COD)

■ Wind Projects from Round I (117MW, COD)

■ Solar Projects from Round II (200MW, FC)

■ Wind Projects from Round I (271MW, FC)

■ EPC Solar Projects (123MW, Const., COD)

■ EPC Wind Projects (80MW, Const.)

■ Solar Projects through Direct Proposal (200MW, financing)

■ Wind Projects through Direct Proposal (45MW, financing)

■ Waste-to Energy (1000ton/day, EOI)

Video



<https://www.youtube.com/watch?v=apriH7VUXvE&feature=youtu.be>

Distributed Generation

- Net- Metering Approach

Acc. Net-Metering
 Operated Systems
 at the end of Nov 2015



33 MW
 1285 Meters

Net-Metering
 Expected at end of 2015
 ≈ 50 MW

Wheeling Scheme
 Expected at Mid of 2016
 ≈ 50 MW

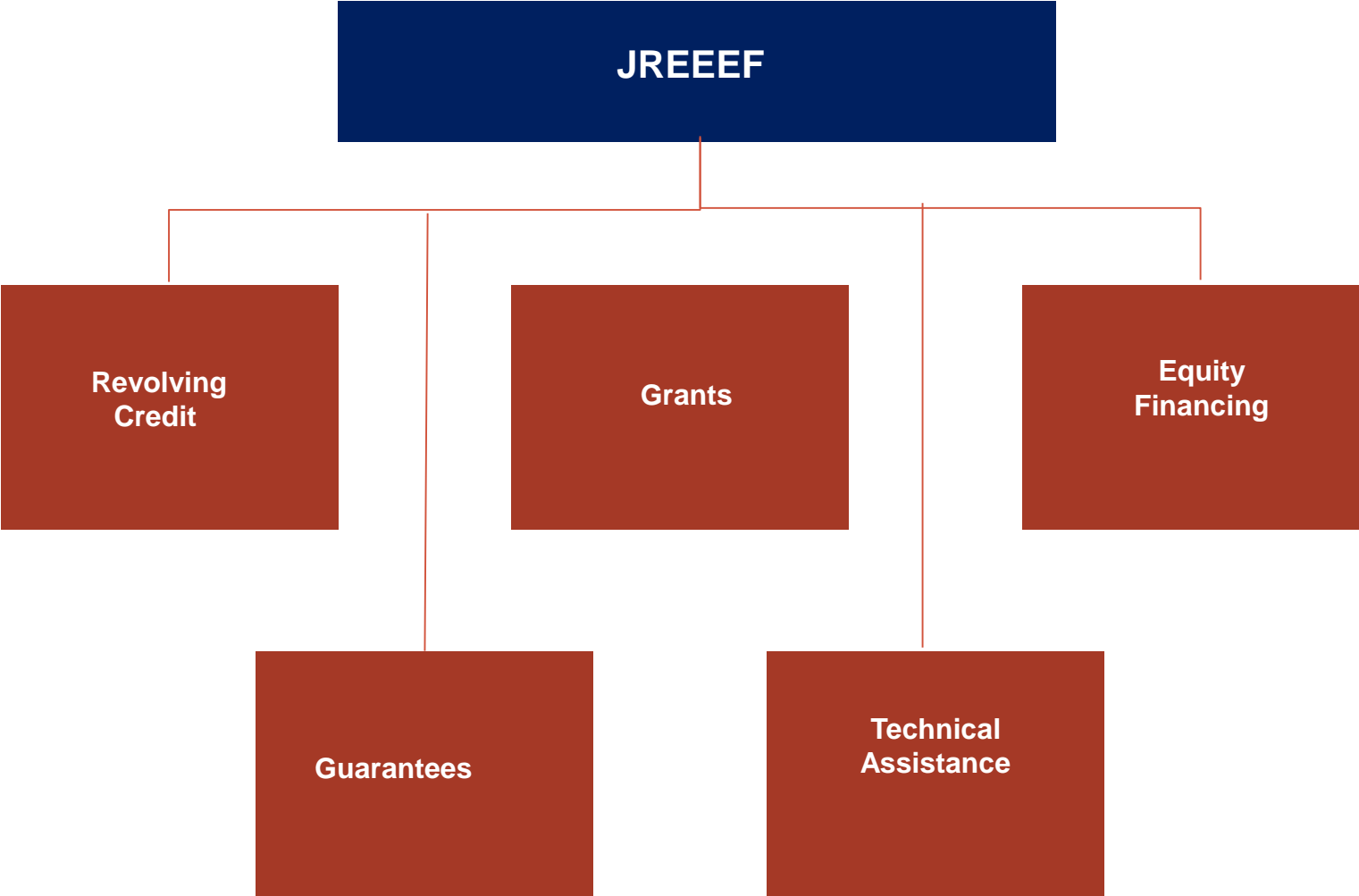


JREEEF'S Strategic Objectives

- Reduce the burden of high energy costs on vulnerable sectors and consumers.
- Scale-up RE and EE investment through projects and initiatives.
- Develop Jordan's RE and EE industries.
- Facilitate the availability of affordable financing.
- Leverage available funding through partnerships with donors and the private sector.
- Ensure access to affordable, reliable, sustainable and modern energy for all
“SUSTAINABLE DEVELOPMENT GOAL 7”



JREEEF'S Support Mechanisms





JREEEF's Programs

Schools Heating Program (King Abdullah II Initiative)

Households

- SWHs
- PV
- LED Lamps
- Off-grid Systems

Governmental Buildings

Worship Places

SMEs;

- Industrial
- Hotels
- Commercial

Awareness & Capacity Building

Innovation

JREEEF's Programs

Schools Heating Program (King Abdullah II Initiative)

- 70-schools self-funded by JREEEF and 57 schools co-funded for 2017.
- Measures: EE (insulation, HVAC, lighting, SWHs, etc.), and PV.
- JREEEF budget is 8M JOD (\$11.3M).
- Target 100 schools/year fully funded by JREEEF till 2020.
- Remaining schools will be covered by a program being developed with EBRD (2,600 schools in total)

JREEEF's Programs

Households

- SWHs
- PV
- LED Lamps
- Off-grid Systems

- Contracts signed with 10 commercial banks offering loans to consumers.
- JREEEF provides:
 - Loan guarantees.
 - Covers interest on loans.
- In-parallel, JREEEF offers grants through CBOs (up-to 50%).

JREEEF's Programs

Governmental Buildings

- Funding of energy audits.
- Grants offered to implement EE and RE measures at audited buildings.
- JREEEF supervises implementations directly or through progress reports.

JREEEF's Programs

Worship Places

- JREEEF offers 25%-50% grant for PV installations.
- 25% grant is offered by other government and NGO entities.
- Rest is funded by local communities (donations).

JREEEF's Programs

SMEs;

- **Industrial**
- **Hotels**
- **Commercial**

- JREEEF funds energy audits (100%).
- JREEEF, donors, and owners pay for EE and RE implementations (e.g., Petra hotel EE implementation is 50% funded by AFD, 25% by JREEEF, and 25% by hotel owners).
- Bank loans are also easily provided by JREEEF covering loan guarantees and interest.

JREEEF's Programs

Awareness & Capacity Building

- A public awareness campaign has been launched and is getting very positive feedback.
- Strong social media presence.
- Partnering with business associations, NGOs, and private sector for training and capacity building.

JREEEF's Programs

Innovation

- Grants (up-to \$14,400 each) is offered to support RE and EE activities.
- Technical evaluation and oversight committee formed.
- Applications started Q1 2017.

RE and EE Distributed Installations – 2015 to 2020

- 200,000 solar water heaters
- 100,000 x2kWp solar PV systems
- 1 million LED lamps



وفر عَـحـالـك كـهـر بـاء..
وقسِّط سَـحـانـك الشـمـسـي

تدعم ومصلحة من:

للتقسيم قم بالاتصال أو زيارة أي من البنوك التالية:

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www.JREEEF.gov.jo

بنوك شريكة: Bank of Jordan, Arab Bank, Jordanian Bank, etc.



بِـدِّك
توفـر عَـحـالـك
كـهـر بـاء؟



فُكها وركب LED
وفر عَـحـالـك كـهـر بـاء..

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Awareness campaigns



Awareness campaigns



وفر عَـحـالـك كـهـر بـاء..
وركّب خلايا شمسية

بدعم ومصلحة من:

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THANKS FOR YOUR ATTENTION