



وَنَارِءَ الطَّاقَةِ وَالشَّرَوَةَ الْمَعْدِنِيَّةِهَا  
الْمَلِكِيَّةِ الْإِسْلَامِيَّةِ الْهَاشِمِيَّةِ



**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

## Fire-side chat: Perspectives from Jordan on the Energy Transition Rasmi Hamzeh

# LEADING NATIONAL EFFORTS TO OPTIMIZE THE UTILIZATION OF ENERGY CONSUMPTION THROUGH EE & RE

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# Overview

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The Renewable Energy and Energy Efficiency Fund was established under the Renewable Energy and Energy Efficiency Law No. (13) of 2012, and its own bylaw No. (49) was issued in the year 2015, where it actually started its work as an executive arm of the Ministry of Energy and Mineral Resources. The fund works to provide the necessary financing to implement energy conservation and renewable energy programs and projects.

Where the Fund has designed a package of programs and projects that include various sectors and that are implemented through several financing windows, and the strategic plan and implementation programs of the Fund stem from the general strategic plan of the Ministry of Energy and Mineral Resources and the national strategy for the energy sector to achieve national goals, and contribute to achieving Jordan's commitments International Conference on Climate Change and the Paris Agreement.

# Financial mechanisms & windows

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## Financial Mechanisms

- Grants
- Interest Rate Subsidy
- Banks Loans Guarantees
- Cost sharing With International Donors

## Financial windows

- Banks
- Microfinance companies
- Local NGOS /CBOs



# JREEEF Objectives

Reducing the financial burdens on consumers and the economy resulting from energy sector.

Support RE and EE projects and programs that open up new markets and are replicable and scalable.

Increase the private sector's economic resilience and competitiveness through deploying EE/RE applications.

Support development of a domestic industry that can deliver the projects and services necessary to scale-up utilization of RE and EE in Jordan.

Develop a network of partnerships for developing and implementing RE and EE projects of all sizes.

Engage with donor agencies and other funds to establish a continuing flow of funding for renewable energy and energy efficiency investments.

# Fund programs and projects



Schools

Household  
sector

Tourism  
sector  
(hotels)

Industry  
sector

Non profit entities  
with public  
objectives  
(accommodation)

Agriculture  
sector

health  
sector

Awareness  
training &

Municipalities

worship  
places

# JREEEF programs for the household sector



Installing heaters and solar cells and replacing energy-saving lamps for citizens' homes.

Funding Mechanism:

- A full grant for the homes of poor families, chaste families, and the homes of the High Royal support, which are chosen in cooperation with the Royal Court, the Ministry of Social Development and the National Aid Fund.

Funding values :

- A full Grant for poor and chaste families.
- Support 50%, 30% of systems cost.

Program achievements

program	Number of installed systems
SWH	30,000
PV	3,500
Efficient LED	220,000 Units

Total cost of home sector projects:  
17,480,087 Jordanian dinars

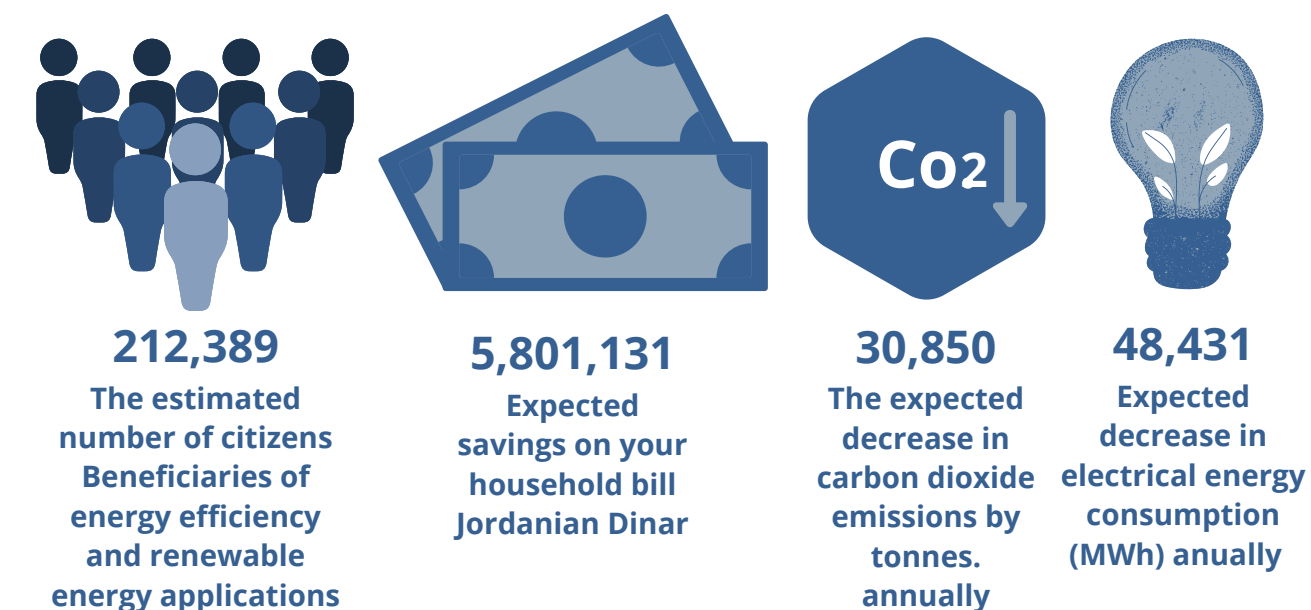
Funding windows:

- Local Associations: 250 local associations in various governorates of the Kingdom work with the Fund to implement programs.
- Commercial banks.
- The civil institution.
- Foundation for retired military personnel.
- Various donors.



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[Click here](#) to visit the page.

## PROJECT PERFORMANCE / IMPACT INDICATORS





# JREEEF program for Non profit entities with public objectives (accommodation)



Supporting the installation of solar cell systems for institutions, associations and centers that deal with orphans, people with disabilities and the elderly.

## Funding Mechanism:

Full (100%) grant from the Energy Fund to install the system.

## Program achievements

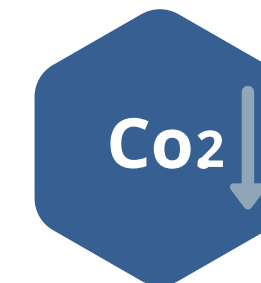
Photovoltaic cell systems were installed and commissioned for 11 enterprises.



## PROJECT PERFORMANCE / IMPACT INDICATORS



**850,137**  
Expected savings on your household bill  
Jordanian Dinar



**290**  
The expected decrease in carbon dioxide emissions by tonnes. annually



**433.3**  
Expected decrease in electrical energy consumption (MWh) annually

# Industrial sector

Supporting and financing energy audit studies and implementing energy-saving measures in small and medium-sized factories.

### Funding Mechanisms:

- Fund energy audit studies by 50%.
- Supporting bank interests and guaranteeing loans for the loan granted to the factory to implement the project, with a ceiling of 350,000 dinars.

### Program achievements:

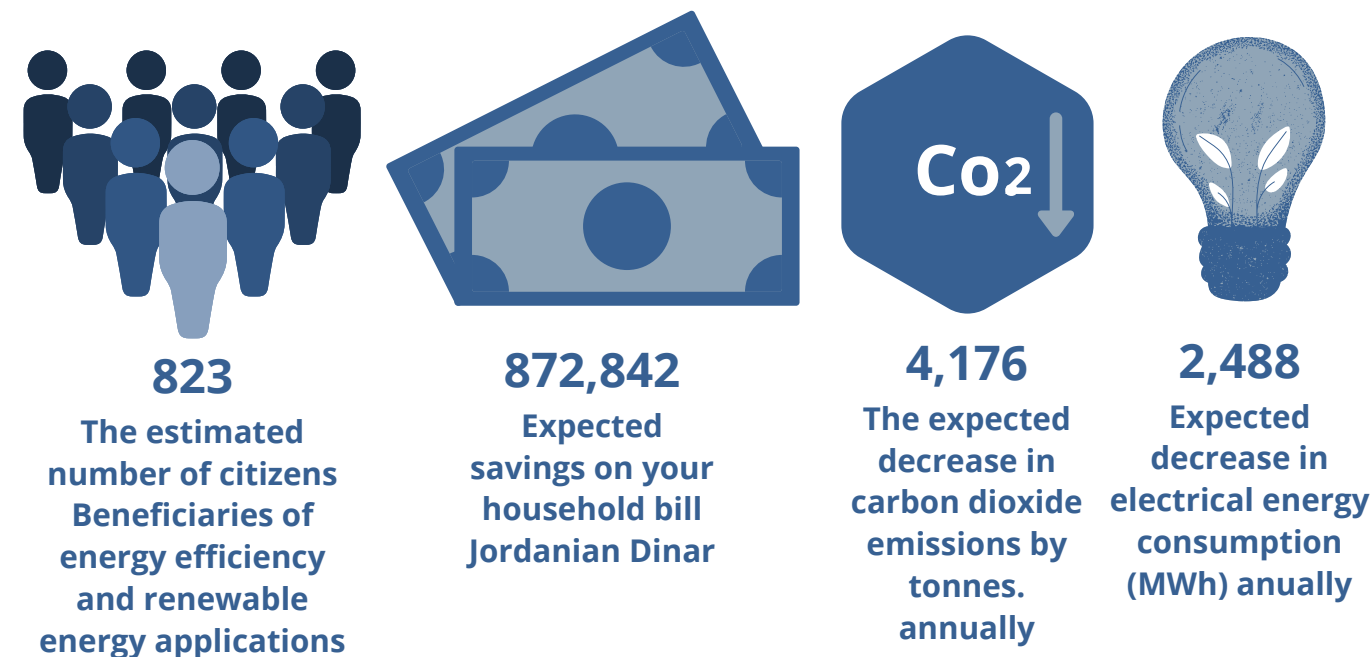
Number of completed energy audit studies	Number of participating factories
27	79
Number of factories obtaining loans and implementing procedures	Number of energy audit studies underway
10	52

The total cost of the project to date  
5,500,260 JD

The number of factories that implemented the procedures with self-financing
13



### PROJECT PERFORMANCE / IMPACT INDICATORS





# Tourism sector / hotels

Fund the implementation of energy audit studies and implementing energy efficiency and rationalization measures in four-star hotels or less. In regions outside the capital.

## Funding Mechanisms:

- Grant support (100%) to conduct the hotel energy audit study.
- Supporting the implementation of energy conservation measures emanating from the study.

## Program achievements

The number of hotels benefiting from its history is  
 16 hotels in Petra and Madaba

The total cost of the project to date:

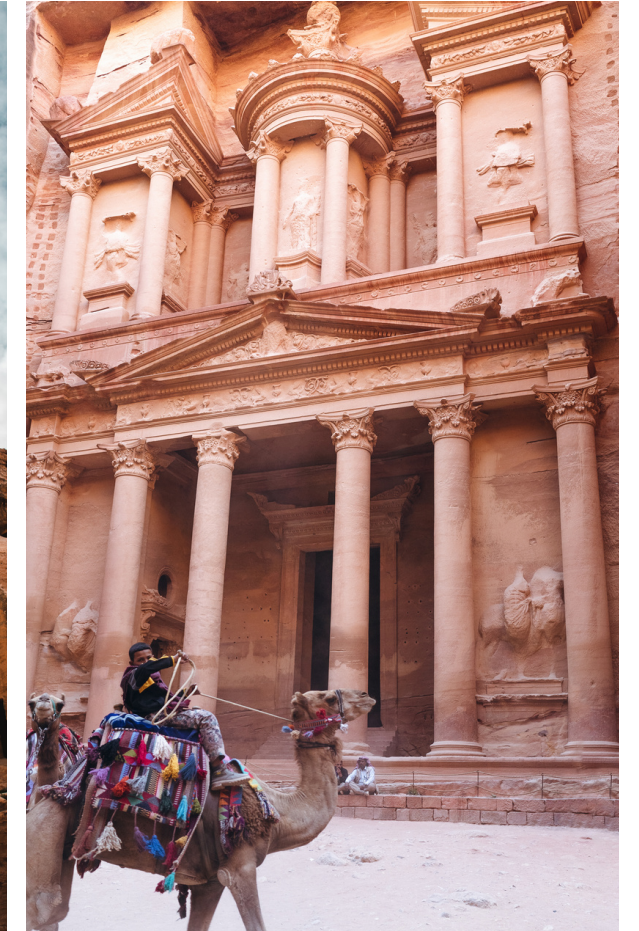
6,657,540 JD

Targeted for 2023

Executing an energy audit study for hotels of four-star category or less to include 2023 hotels in Aqaba during the year 2023 and implementing the outputs of these studies for the participating hotels at a total cost of 2.7 million dinars.

## PERFORMANCE INDICATORS RESULTS

Performance Index	Results Achieved 2015-2020
implemented applications of energy efficiency	12
Number of energy audit studies conducted.	18
Number of LEDs replaced.	5,908
Solar heaters capacity (liters).	9,150



## PROJECT PERFORMANCE / IMPACT INDICATORS



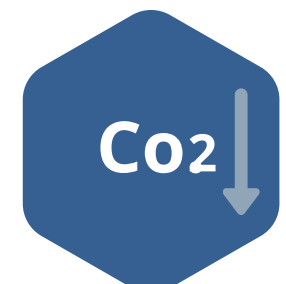
213,321

The estimated number of citizens Beneficiaries of energy efficiency and renewable energy applications



474,300

Expected savings on your household bill Jordanian Dinar



1018

The expected decrease in carbon dioxide emissions by tonnes. annually



2,818.7

Expected decrease in electrical energy consumption (MWh) annually



# Public schools program

Implementing procedures for rationalization, conservation, energy efficiency and renewable energy for public schools.

## Funding Mechanisms:

100% grant from the Renewable Energy Fund and donor partners participating in the program.

## Program procedures:

Implementation of energy efficiency measures, installation of air conditioning systems, general maintenance of classrooms, installation of solar heaters systems, installation of photovoltaic systems that cover the entire electrical consumption of the school, in addition to installing central control systems and implementing comprehensive awareness campaigns for students, teachers and the local community about energy conservation and renewable energy applications .

Number of schools completed	Total cost
136	11. 804 Million
<b>Targeted for 2023</b>	<b>schools with an 20 estimated cost of one million dinars</b>

Rasmi Hamzeh



## PROJECT PERFORMANCE / IMPACT INDICATORS



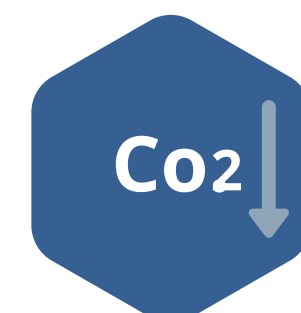
74,208

The estimated number of citizens Beneficiaries of energy efficiency and renewable energy applications



505,786

Expected savings on your household bill Jordanian Dinar



2,101

The expected decrease in carbon dioxide emissions by tonnes. annually



3,299

Expected decrease in electrical energy consumption (MWh) annually

Fire-side chat

# Municipalities program



- Fund the installation of solar cell systems on the rooftops of major municipal buildings, with the aim of reducing the electricity bill costs on them.
- The project is implemented in cooperation with the Ministry of Local Administration.

## Support Mechanism:

100% grant for the cost of the system for renewable energy through a grant provided to the Energy Fund by the Italian Ministry of Environment, and allocated by the fund to support municipalities in the Kingdom.

- **Program achievements for the end of the year 2020:**
- Building two renewable energy stations with a capacity of (1 megawatt) per station, for the municipalities of Deir Alla and Maadi, at a cost of (1.5 million dinars), with a grant through the Economic Development and Sustainable Energy (SEED) program supported by the Canadian government and the Energy Fund.
- Building a renewable energy system with a capacity of (50 kW) for Ajloun municipality to establish an electric vehicle charging station for citizens.

The total cost of the Deir Alla and Ajloun projects: 1.6 million dinars.

## Targeted project

First	30 municipalities for the year 2021
Second	municipalities for the year 2022 30
Third	.municipalities for the year 2023 40

The total cost of the project for the next three phases:  
3.5 million dinars



# Health centers program



Installing solar cells and air conditioning systems for health centers. With the aim of improving the work environment in these centers and creating a better environment for the auditors.

## Funding Mechanism:

100% grant from the fund

## Implementation mechanism:

The program is implemented in cooperation with the Ministry of Health to select the health centers that are most occupied, especially in remote areas. (Outside the capital)

## Program achievements for the end of the year 2020:

Installing solar cells, air conditioning systems and energy-saving lamps for five (5) health centers in Ajloun and Deir Alla through the Economic Development and Sustainable Energy (SEED) program supported by the Canadian government and the Energy Fund.

- Targeted for 2023

25 health centers at an estimated cost of 750,000 dinars, distributed over the Kingdom's governorates.





# Sustainable energy worship places



Supporting the installation of solar cell systems for places of worship in all governorates of the Kingdom.

## How the program works:

The program is implemented in cooperation and partnership with the Ministry of Endowments, where the fund contributes 25% of the cost and the Ministry of Endowments contributes a similar rate, in which the bodies responsible for mosques and churches contribute 50%.

## PROGRAM ACHIEVEMENTS BY THE END OF THE YEAR 2020

Performance Index	Achieved results by the end of 2020
Number of houses of worship that participated in the program (completed)	570
Systems Capacity (kW. Peak)	9,152
Production Capacity (MWh)	14,275

The total cost of the project is 6.6 million Jordanian dinars

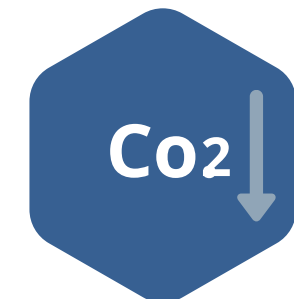
## PROJECT PERFORMANCE / IMPACT INDICATORS



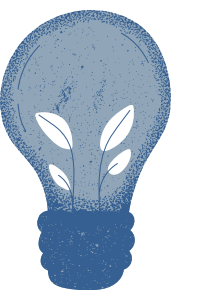
**580,000**  
 The estimated number of citizens Beneficiaries of energy efficiency and renewable energy applications



**3,453,842**  
 Expected savings on your household bill Jordanian Dinar



**9,095**  
 The expected decrease in carbon dioxide emissions by tonnes. annually



**14,275**  
 Expected decrease in electrical energy consumption (MWh) annually



# Agricultural sector

Supporting the installation of solar cell systems for small farms, in cooperation with the Agricultural Credit Corporation.

## Support Mechanism:

Providing support (grant) benefits and services resulting from the loan provided to these farms from the Agricultural Credit Corporation, with a ceiling of 15,000 dinars, to install a system with a capacity of up to 30 kilowatt peak.

## ACHIEVEMENTS FOR THE PROGRAM

Photovoltaic cell systems were installed and commissioned for 140 farms.

**The total cost of the project: 2,344,125 JD**



## PROJECT PERFORMANCE / IMPACT INDICATORS



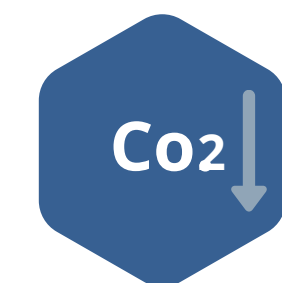
**4,394**

The estimated number of citizens Beneficiaries of energy efficiency and renewable energy applications



**128,960**

Expected savings on your household bill Jordanian Dinar



**1,513**

The expected decrease in carbon dioxide emissions by tonnes. annually



**2,375**

Expected decrease in electrical energy consumption (MWh) annually



# JREEEF & The local community





# JREEEF & The local community





# Partners

The Renewable Energy and Energy Efficiency Fund built successful partnerships that contributed to the success of its programs and projects, which included local and international partners. And he won regional and international Donors.

Relevant ministries

Commercial banks

Local associations

