



Ministry of Energy & Mineral Resources

Sustainable Energy Performance in in Jordan

(General Spectrum)

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1. Energy Sector in Jordan

Jordan is facing a real challenge in securing its energy supply due to:

- ❑ Almost no indigenous energy resources
- ❑ Jordan is a typical country that is highly dependent on imported oil, hence it is vulnerable to exogenous sinuous volatility in the oil market.
- ❑ High dependency on imported energy (97% in 2014)
- ❑ Oil prices creating a burden on the economy (17.6% of the GDP in 2014 & 9.5% in 2015).
- ❑ Continued increase in demand: (a) high growth rate of primary energy demand (5.5% per annual) (b) high growth of electricity generated capacity (7.4% per annual)
- ❑ Renewable energy generation has been almost negligible.

Always We are at “MEMR” Looking Ahead to Deliver Sustainable Performance



The eagle as an emblem symbolizes the long vision at the service of the clients & stakeholders every day.

3. Regulatory and Policy Frameworks

- ❑ **Energy Strategy (2007-2020) and the updated Strategy for (2015-2025).**
- ❑ **General Electricity Law.**
- ❑ **The Renewable Energy and Energy Efficiency Law.**
- ❑ **Direct Proposals Bylaw for RE Projects & the interconnection to the Grid.**
- ❑ **Reference Price List for different Renewable technologies, with preferential for local contents (Local manufacturing).**
- ❑ **Net- Metering for small RE Systems (Roof Tops) with Fixed Purchase Prices for Excess Power.**

3. Regulatory and Policy Frameworks

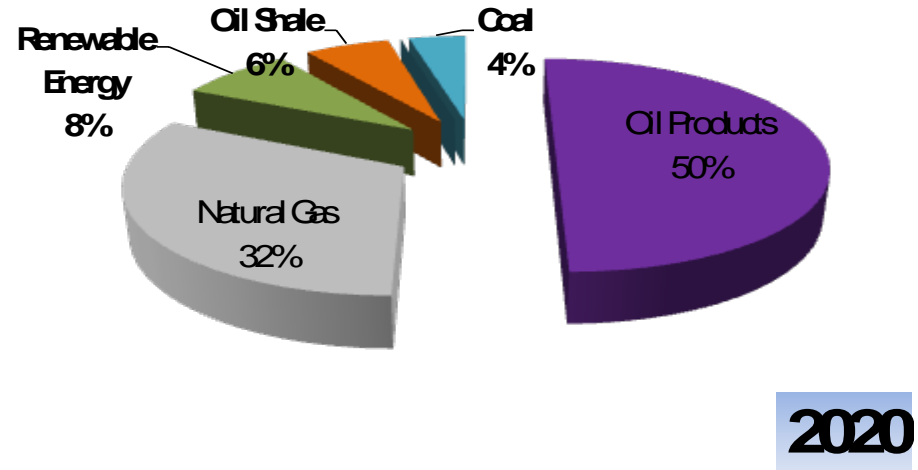
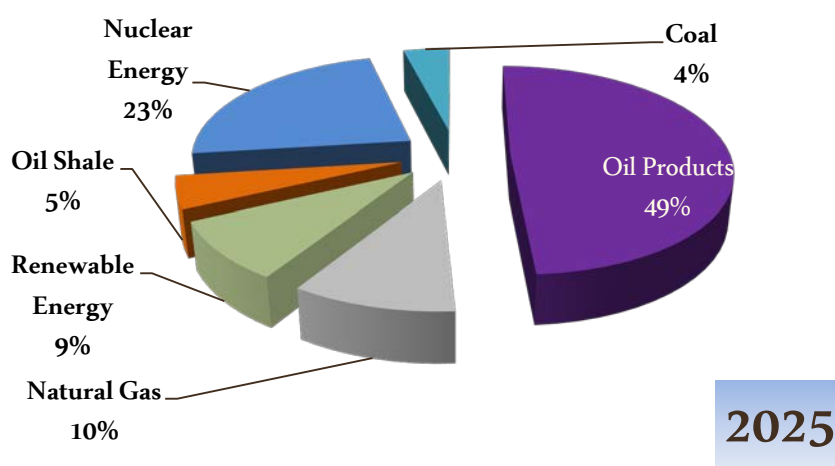
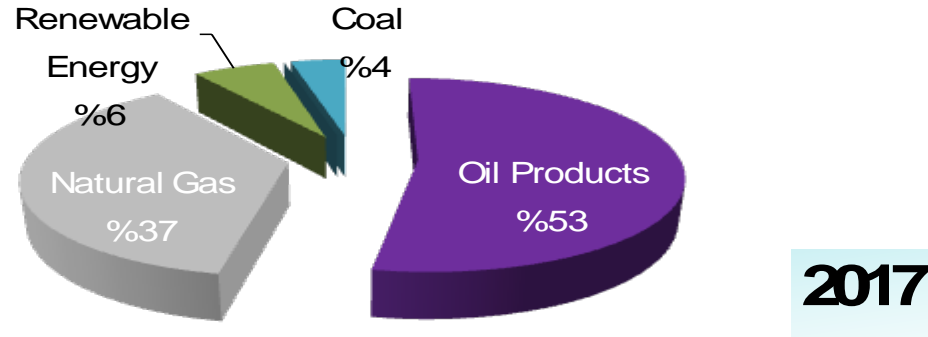
- ❑ RE & EE Tax Incentive regime (By-Law to exempt RE&EE systems and equipment).
- ❑ National Energy Efficiency Action Plan.
- ❑ Template contractual documents (PPAs) and Instructions for developing RE projects do exist.
- ❑ Grid reinforcement (Green Corridor) is undergoing by NEPCO in order to install more RE Capacities.
- ❑ We have Introduced Nuclear Energy as substance for Electricity & Water Treatment.
- ❑ Enhancing Environmental Protection.

Energy Strategy Targets by 2020

Targeted 20% reduction in 2020 of energy consumed in 2007; plus achieving 10% from RE by 2020. And the following targets to the energy mix:

- Renewable Energy a target of 10%
- Wind power (installation of 1000 MW)
- Solar thermal energy (300 – 600 MW)
- Solar water heaters share of 30%

Energy Mix 2017-2025

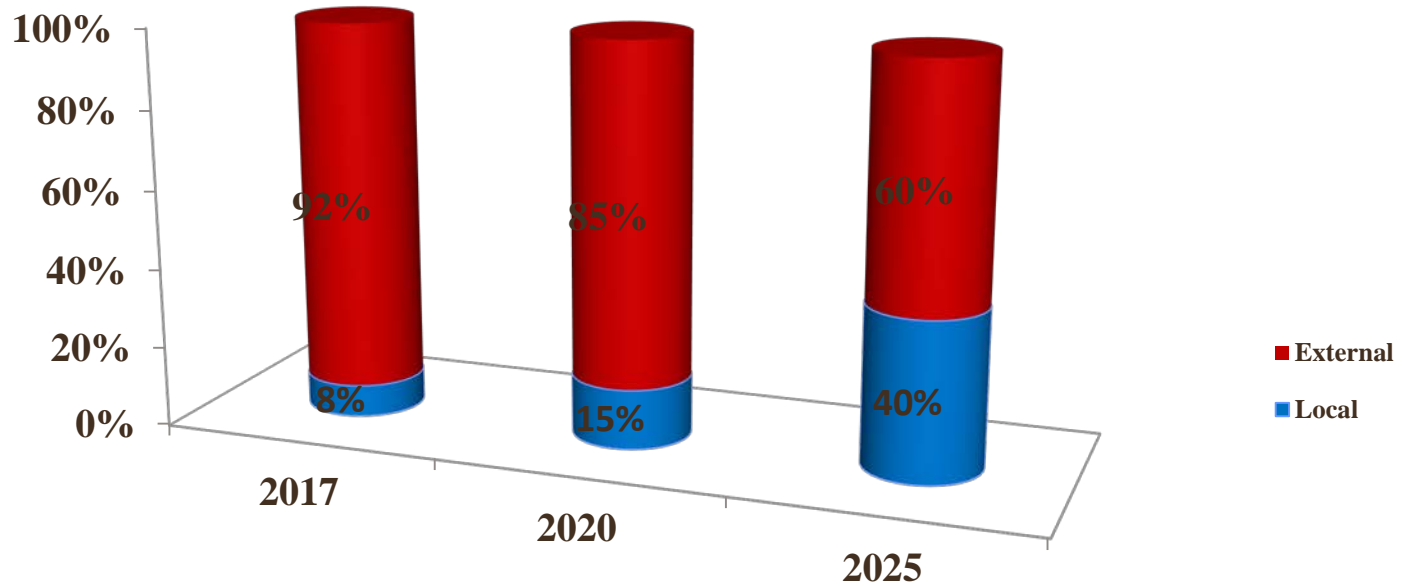


Energy Strategy (2015-2025)

The Energy Strategy (2015 – 2025) was approved to face energy sector challenges through achieving the following goals:

- Increase local energy portion in total energy mix
- Decrease dependency on imported energy
- Achieve variety in energy forms and resources
- Raise energy consumption efficiency
- Conserve environment

Contribution of Energy Resources 2017-2025



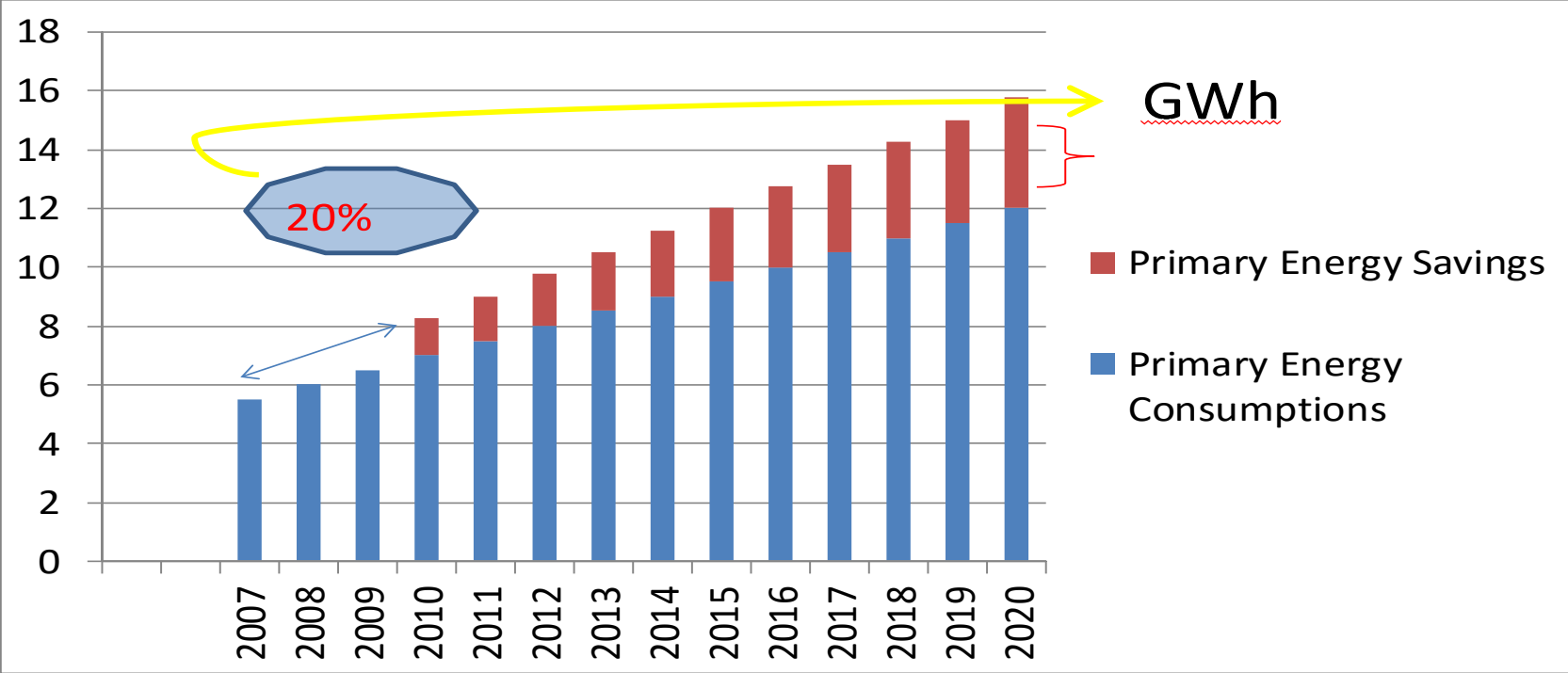
- Planned Renewable Energy Projects 2018-2025

- **A framework agreement signed with the UAE Masdar company to develop a range of renewable energy projects starting with 200 MW of solar energy.**
- **Several letters of intents signed with universities and government institutions to carry out solar energy projects.**
- **The Cabinet has agreed on a resolution for electricity generation companies to submit direct proposal submissions for renewables.**
- **Until 2019 we will have 1385MW Total Installed Capacity from RE represents 20% from the Nominal Installed Capacity, contributes to around 10% from the generated electricity.**

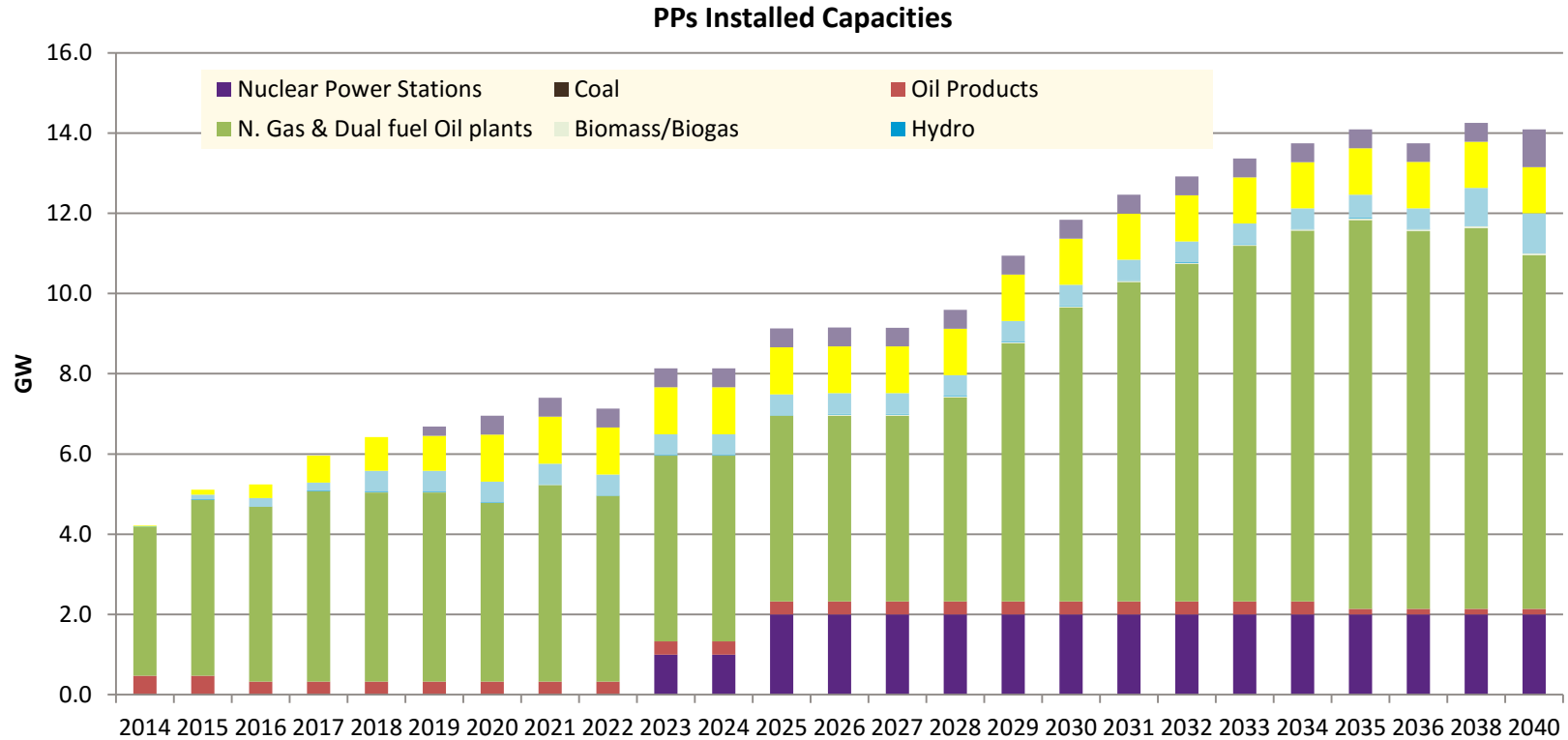
- Small Scale PV Systems for Electricity Generation

- **Recently, small scale PV systems is widely circulated by institutions, enterprises, hotels, households, hospitals and houses of worship according to net metering and wheeling systems by EMRC.**
- **The capacity of installed small PV systems has amounted to around 35 MW by August 2015 all over the Kingdom. It is expected to hit 100 MW by end of 2015/med of 2016.**
- **A group of hotels, hospitals, banks, telecommunication companies have a great interest to build large-scale of solar power stations based on wheeling systems by EMRC that enable them establishing their own specialized companies to be licensed in accordance with the effective legislations.**
- **It is believed that such groups that do support the electricity tariff might affect the electricity tariff restructure.**

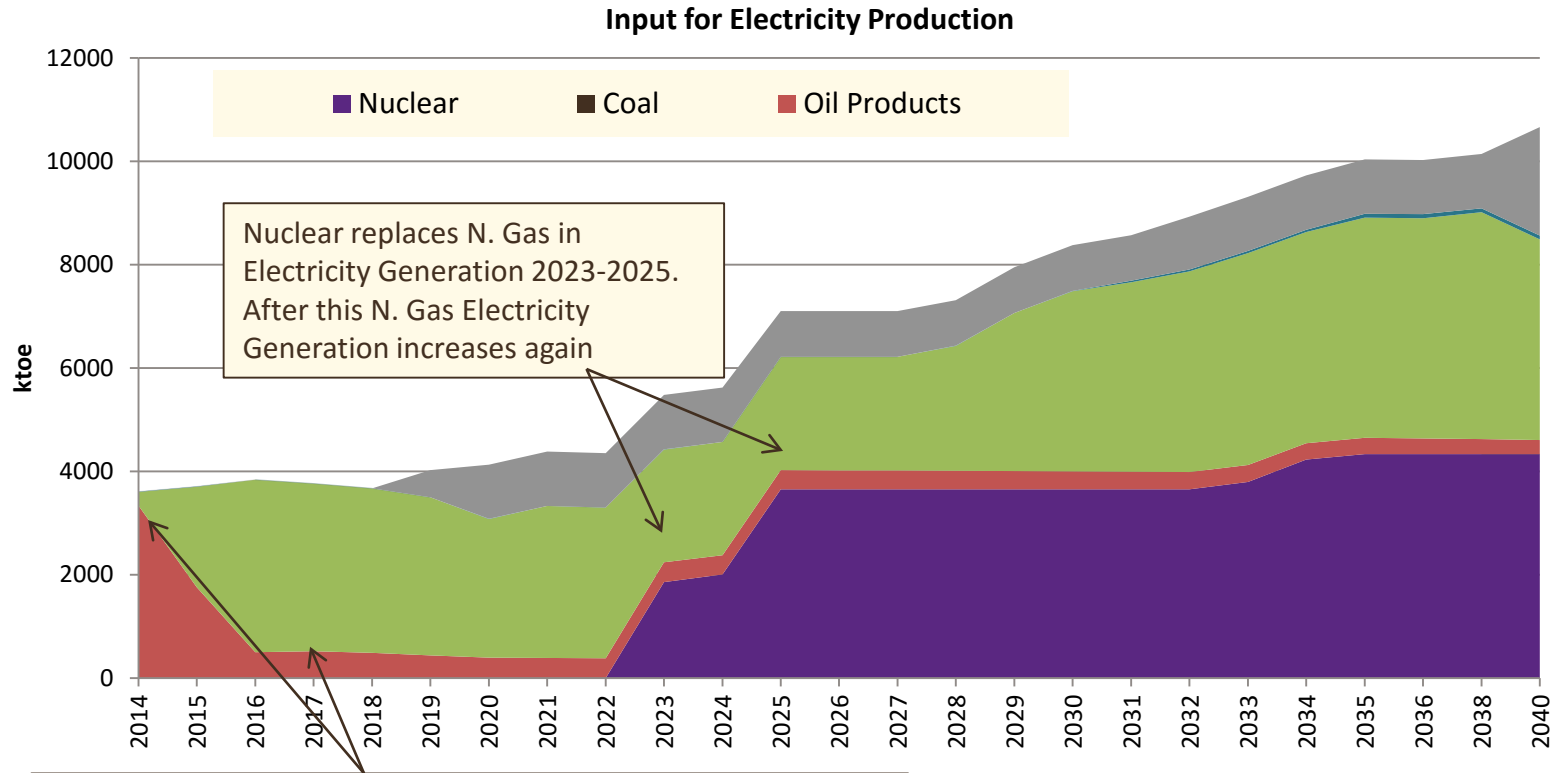
Savings Needed



Reference Scenario



Reference Scenario



4. Energy Efficiency

- ❑ Producing Energy Efficiency (EE) Bylaw No. (73) for the year 2012.
- ❑ Establishment of the Jordan's Renewable Energy & Energy Efficiency Fund (JREEEF).
- ❑ Approving the "Jordan's National Energy Efficiency Action Plan (NEEAP)" from the Cabinet on June 16th 2013.
- ❑ MEMR has signed on Dec. 2012 an agreement with the "Jordan Valley Institution" to install 5162 SWHs in all Governorates by the year 2020; with a total cost of M1,360,800JD funded from JREEEF/MEMR.
- ❑ Income tax and fees exceptions for both Renewable Energy & Energy Efficiency equipments & devices.
- ❑ Applying Energy Label for electrical appliances in cooperation with Jordan's Institution for Standards and Metrology.
- ❑ A public awareness Campaign has started to promote rational use of energy & improving energy efficiency.

Conclusion

- Jordan has laid down the necessary Policy and Regulatory framework for Renewable Energy, and is ready now to attract and receive commercial investments.
- Template contractual documents (PPAs) and Instructions for developing RE projects do exist.
- Grid reinforcement (Green Corridor) is undergoing by NEPCO in order to install more RE Capacities.
- Jordan is now a leading country of Renewable Energy in the MENA Region.

Thank you

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