



The Pan-Arab Electricity Market: From Vision to Execution and Results

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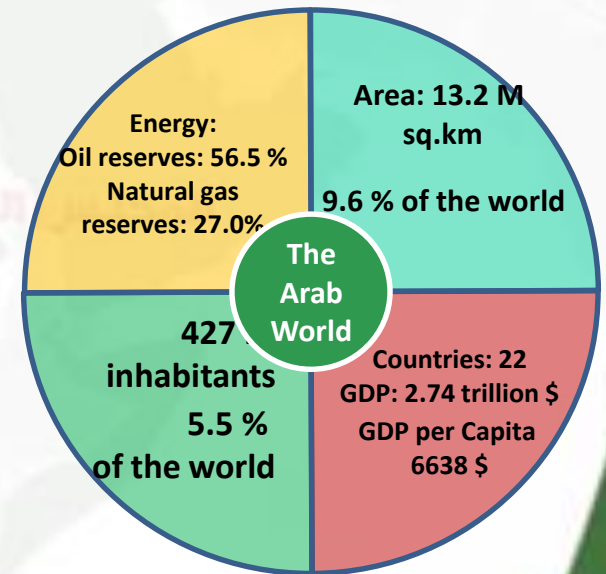
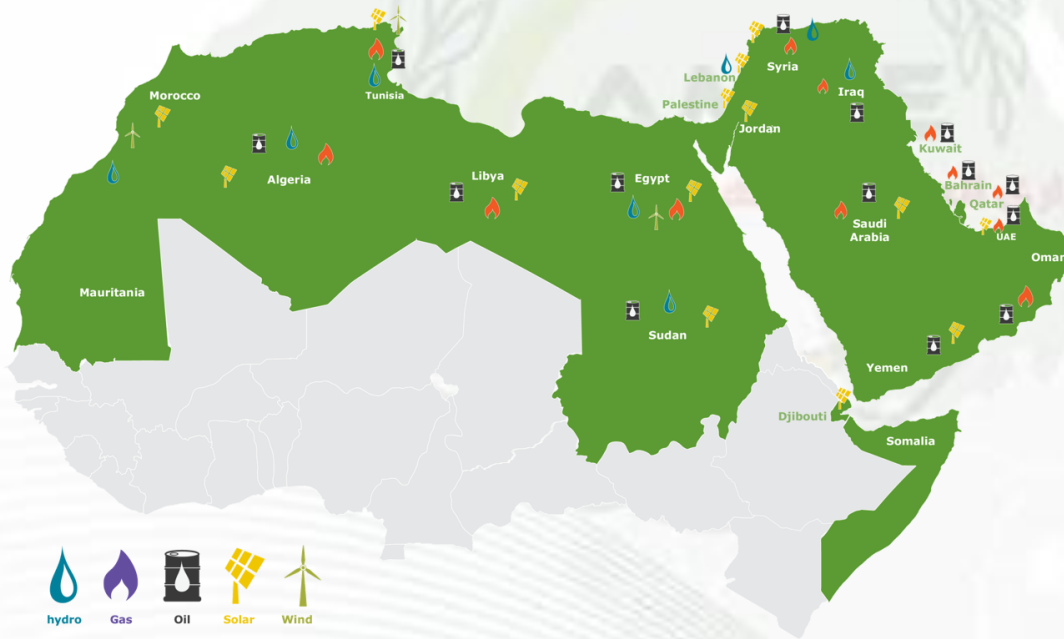
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 - The Current situation
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INTRODUCTION

Oil, Gas and RE





INTRODUCTION .. Electricity Sector



Installed capacity
over **288 GW**

Type of Consumption:

- **46%** Residential,
- **18%** Industrial,
- **17%** Commercial,
- **19%** Others

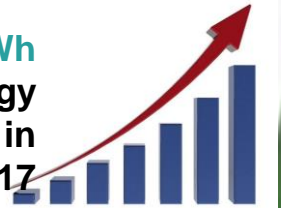


18.3 GW
Renewable
energy installed
capacity



More than **212, 500**
km Transmission
Network

1,137,644 GWh
energy
produced in
2017





Role of Partners



I. Develop a strategy & master plan for upgrading of trade & energy between Arab Countries

II. Comparison of costs & benefits of exchange of electricity or NG


III. Institutional & Regulatory frameworks

AMCE Comprehensive Study



7

Recommended Electrical Interconnection Projects

3

Recommended Gas Projects

5

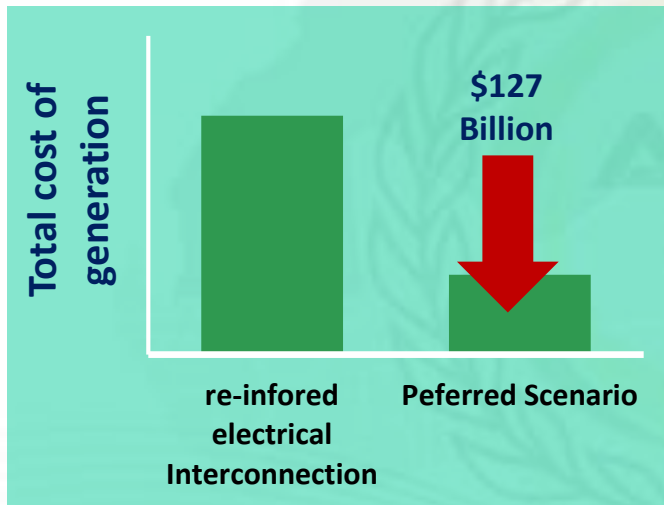
Present value (PV) of saving is \$ 35 Billion

Plus an additional \$ 11 Billion in Reduction of emissions of harmful gases

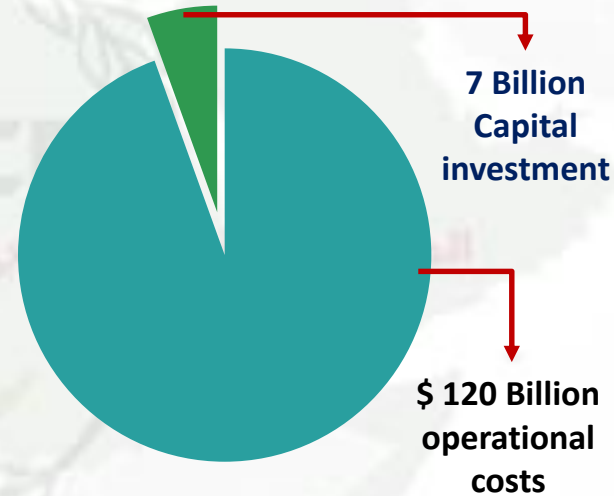


INTRODUCTION:

Generation cost expected savings 2012-2030



Disbudded as follows



Present value (PV) of saving is \$ 35 Billion

Plus an additional \$ 11 Billion in Reduction of emissions of harmful gases



CURRENT SITUATION



Trading by Member States Imports & Exports (2016-2018) IN GWh

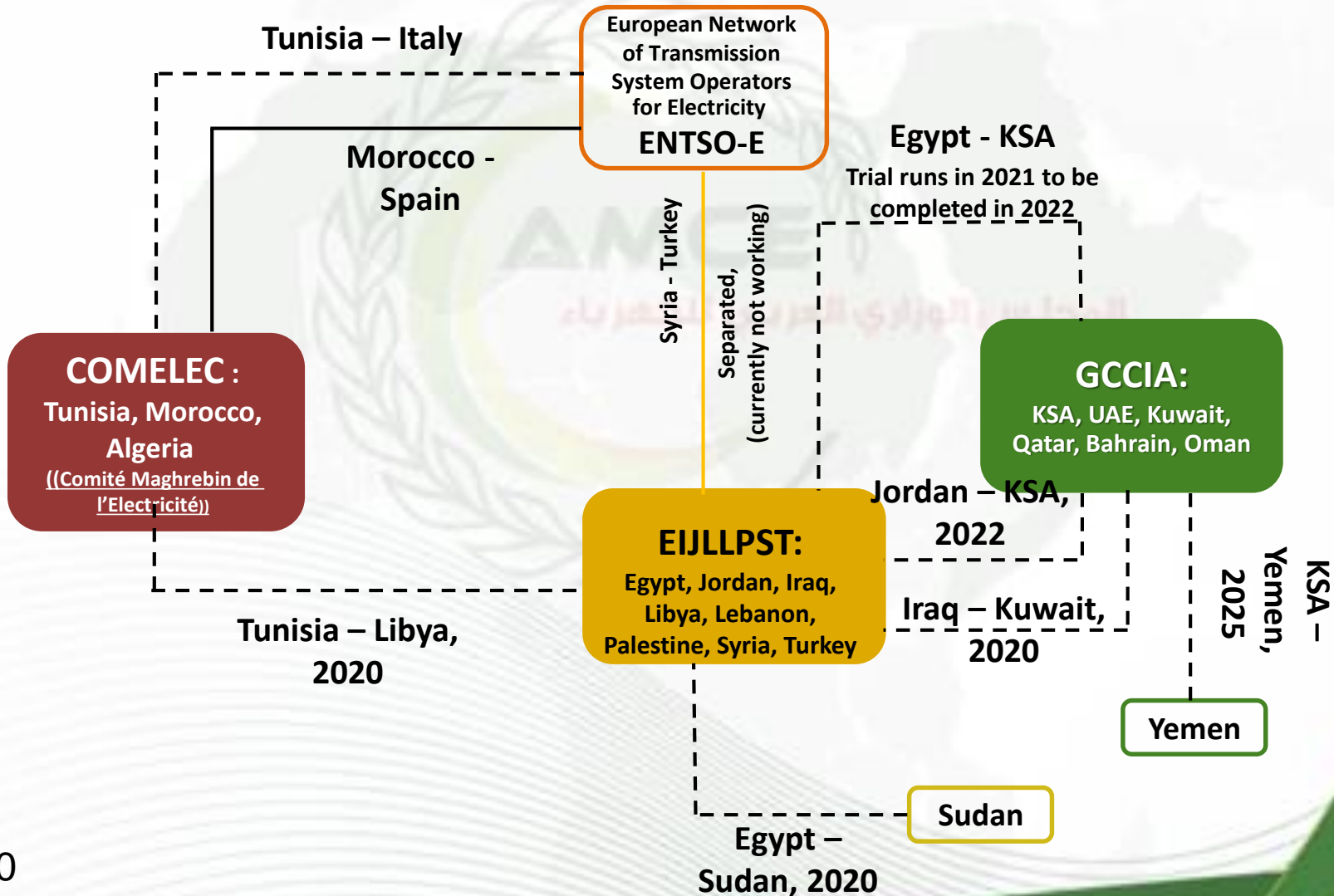
THE SIZE OF ENERGY EXCHANGE IS STILL IN ITS START

■ Export 2016
 ■ Import 2016
 ■ Export 2017
 ■ Import 2017
 ■ Export 2018
 ■ Import 2018





THE EXISTING INTERCONNECTION BLOCKS





The Future

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PA Electricity Market: Governance Docs



- Commitment of Arab countries to Pan-Arab market integration
- Legal basis for Pan-Arab market and subsequent reforms
- Legal basis for Pan-Arab market institutions

- Objectives of Pan-Arab electricity market
- Guiding principles for development of Pan-Arab market
- Formation of, and roles and responsibilities of PA market institutions

- Commercial aspects of the Pan-Arab market, including operation, participation and administration
- Roles and responsibilities
- Metering, billing and settlement

- Minimum technical requirements for operation and planning national transmission networks & international interconnections
- Roles and responsibilities + Metering



PAEM: Market Integration Plan

2010-2018

**Existing
Regional
Markets**

Focus:
GCC,
EIJLLPST (8
countries)
and
Maghreb

2019-2024

**Transition
Market**

Focus:
Identify
and
expand
trade
opport-
unities

2025-2031

**Expand
Regional
Market
Function**

Focus:
Unbundle
TSOs
and
introduce
wholesale
comp.

2032-2036

**Ultimate
Pan-Arab
Market
Design**

Focus:
Full
wholesale
competition
supported
by multiple
markets

2037-2038

**Fully-
integrated
Pan-Arab
Market**

Focus:
Fully
Inter-
connected
and
synchronized
Pan-Arab
electricity
network

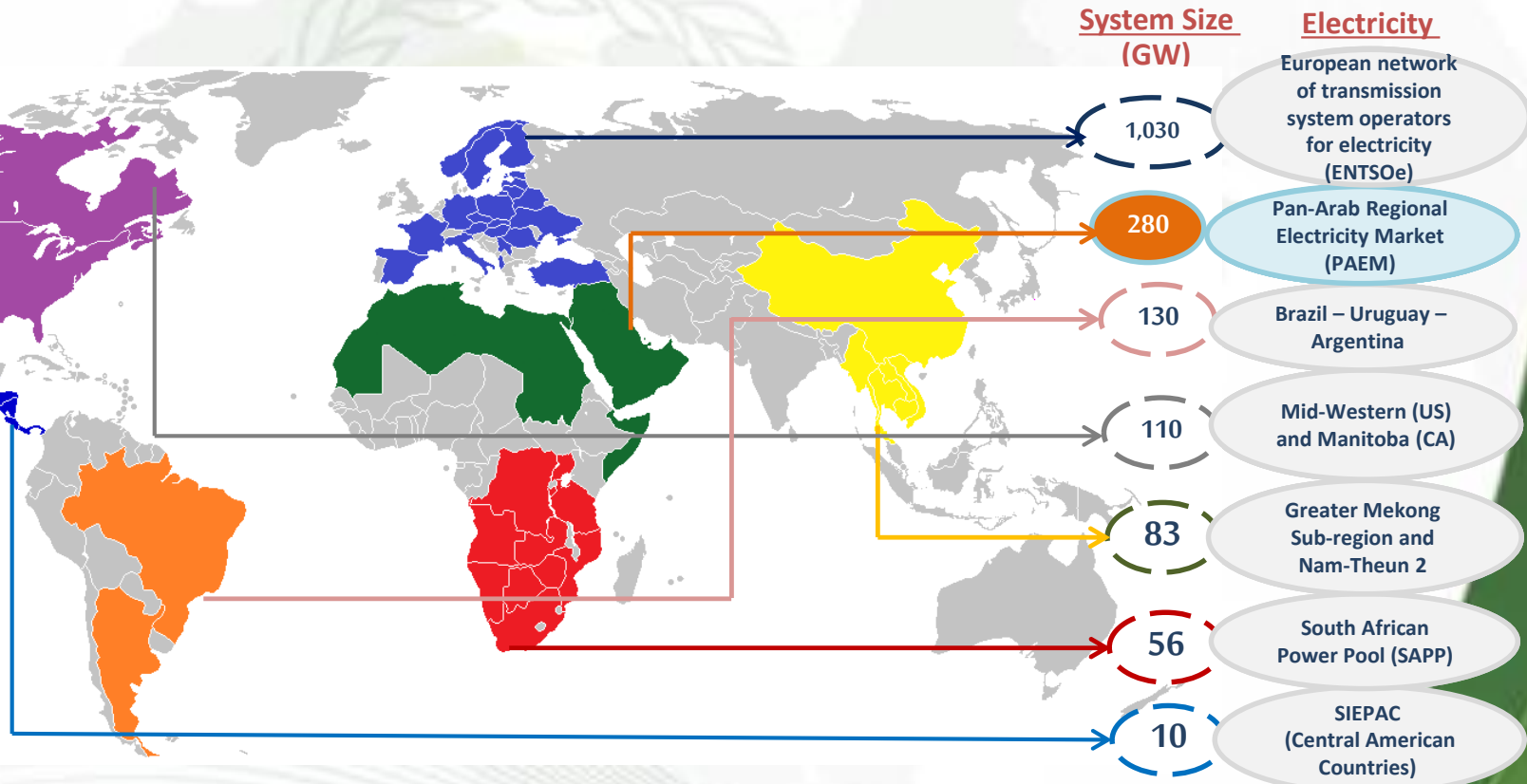


Market Governance Documents

Title of Document	Authorized to Sign	Current/expected Situation	Remarks
MOU	Ministry of Electricity	Signed by 16 Countries	
General Agreement	Member States Governments	2022	Reservation from 1 country
Market Agreement (the PAEM)	Asset Owners (transport system operators, single buyer entities)	2022	Reservation from 1 country
Arab Grid Code	Transmission system operators - and other market participants	2021	a consultant has been selected and the work is ongoing (financed by the Arab Fund)



The envisaged PAEM .. A global overview





NEXT STEPS



Requirements for Establishing the PAEM Market •





Thank you

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