



EUROPEAN UNION
DELEGATION TO THE KINGDOM OF SAUDI ARABIA



1st IEF-EU Energy Day

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The GCC Interconnection: Supporting Energy Efficiency in the GCC

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هيئةربط الكهربائي لدول مجلس التعاون لدول الخليج العربية
Gulf Cooperation Council Interconnection Authority

Mission: Interconnecting our world

Established in 2001, GCCIA has successfully built and operates, since 2009, the GCC interconnection 400kV super grid, providing a new level of Energy security for the GCC Countries through:

- Sharing of reserves and Capacities
- Support during emergencies
- Regional exchange and trade of energy
- Facilitating the integration of New & Renewable Energy resources



Vision : To Serve the GCC countries and beyond, by leading the development of a reliable efficient power market, and providing knowledge excellence in power systems integration.

GCCIA Mission:

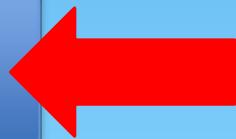
“Interconnecting Our World”



1. Establishing The GCC
Interconnection
2005-2011



2. Creating the GCC Power
Market
2010-2020



3. Connecting Beyond
the GCC Region 2015-
2025



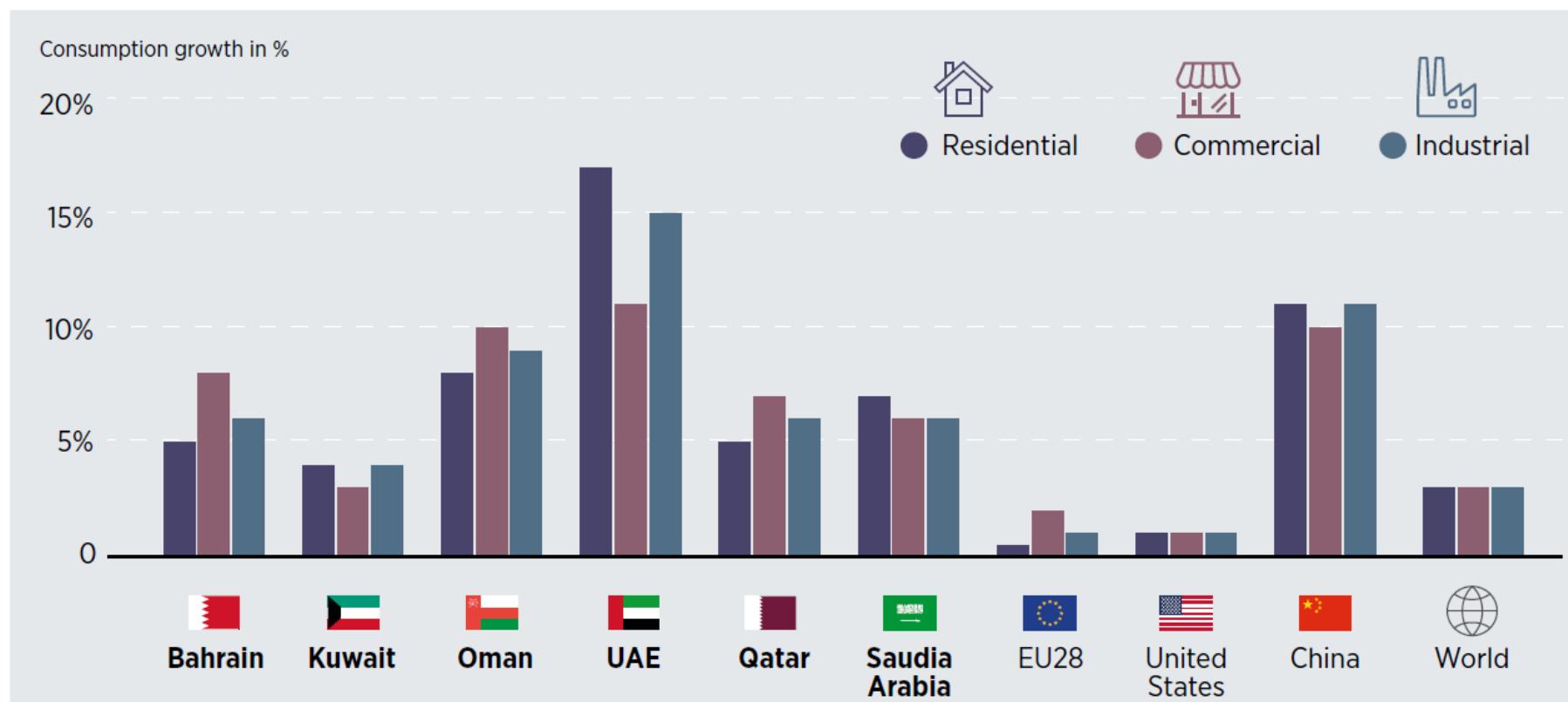
GCC Perspective on Energy Efficiency & Renewable Energy

- 2015 WB Forum in Oman : “*GCC Govt. officials and international experts developers agree that Energy Efficiency & Renewable Energy investments can build resilient GCC Economies*”.
- “*GCC countries have enormous potential to be more energy efficient.*”
- **Fact:** GCC high domestic energy growth of 6-8% annually requires more optimal utilization of resources → Energy Efficiency.
- GCC demand dominated by home use @ 47% vs a global average of 25% (*courtesy : Deloitte Energy on Demand Report 2015*)
- WB: “**GCC paying more than \$160 billion on energy subsidies annually**”



Electricity Consumption Growth in the GCC

Annual electricity consumption growth by user group in the GCC and selected countries, 2003 – 2013 (%)



Source: Based on IEA data



Changing the Energy Mix

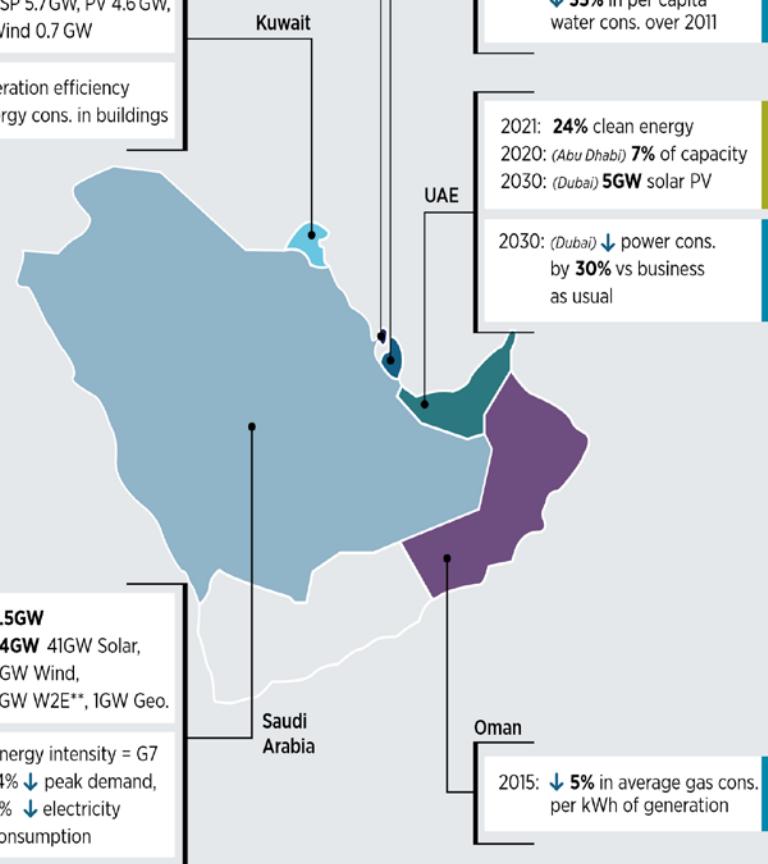
- GCC countries rely almost entirely on gas and oil for electricity production.
- Such reliance on gas and oil is NOT SUSTAINABLE. GCC need to:
 - *develop a sustainable energy mix for the GCC region (e.g. Renewable, Nuclear, other)*
 - *access alternative energy resources in other regions (Asia, Africa, Europe) through INTERCONNECTIONS*
 - *Have more “Energy Efficient” generation of electricity*

GCC Plans for Clean Energy and Energy Efficiency

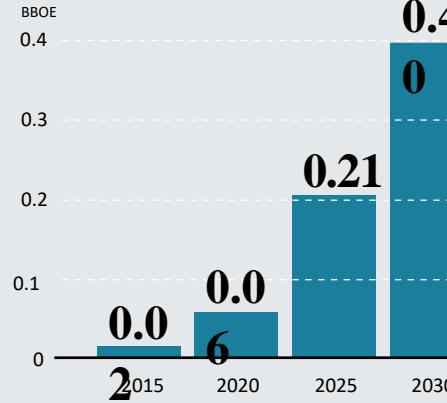
GCC sustainable energy plans

- Renewable Energy Targets
- Energy Efficiency Targets

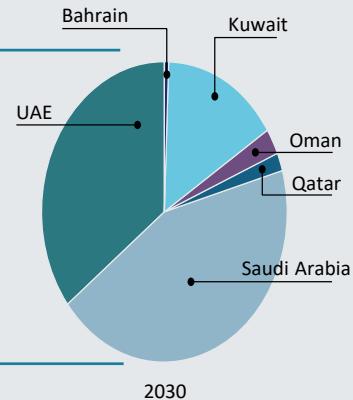
2020: **5%** of generation
 2030: **15%** of generation
 CSP 5.7GW, PV 4.6 GW,
 Wind 0.7 GW
 ↑ 5% generation efficiency
 ↓ 10% energy cons. in buildings



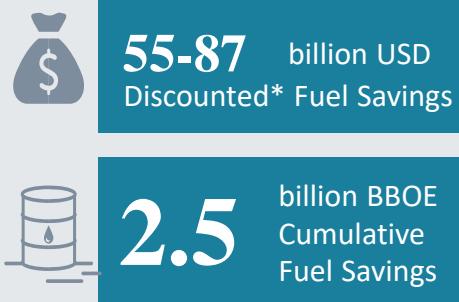
Annual Fuel Saving



Fuel saving in 2030



GCC Countries



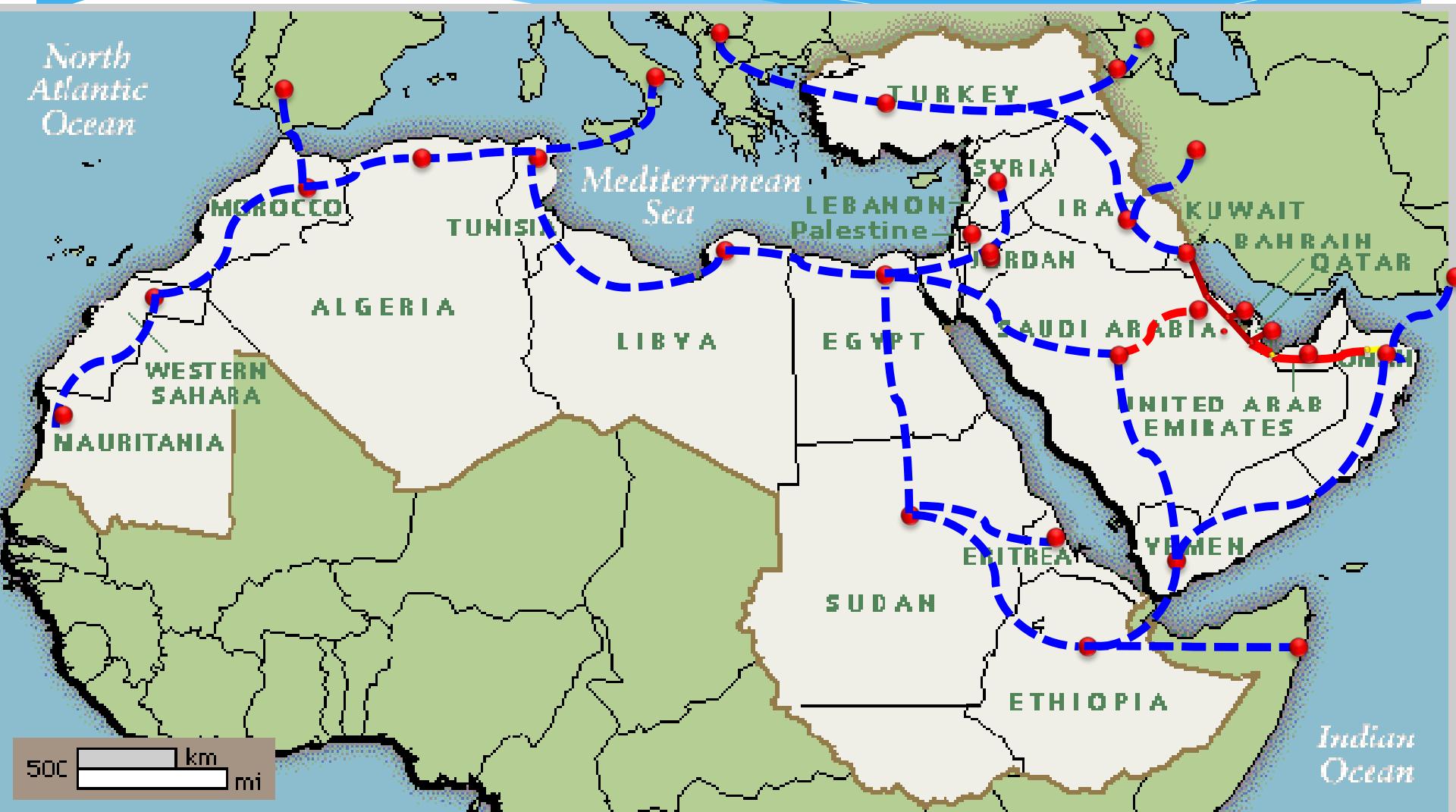
Source : IRENA

The GCC Interconnection Ring ?

Going
beyond
the GCC
region ?



Interconnecting the Region





Concluding Thoughts

- **GCC Plans for Energy Efficiency and Renewable Development are essential for a sustainable future GCC economy,**
- **More efficiency on Energy Consumption is needed : higher Tariffs ? Regulations ? Incentive Schemes ?**
- **More efficient sources of energy needed : Renewables? Distributed Renewables? Nuclear ? Hydro ? Storage Solutions?**
- **Interconnections can facilitate integration of new more efficient energy sources & access to alternative sources in other regions: How can we develop more integration of resources regionally and globally?**



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Thank You

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