

The Regional Energy Efficiency Market

State of the Retrofitting market across the region and in Saudi Arabia

Stephane le Gentil - November 2017

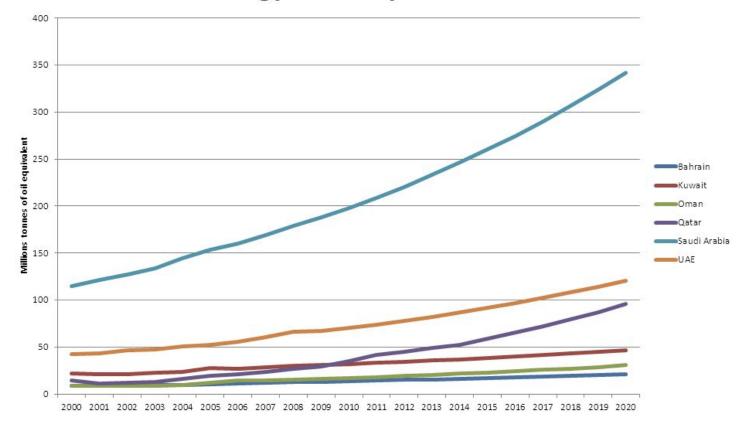


- 1 Energy consumption growing fast
- 2 Electricity & Water Tariffs increasing
- 3 Aging low efficiency building stock
- 4 General drive towards sustainability



- GCC energy consumption continues to grow significantly
- Oil producing countries using a growing share of their production for domestic use

Total Energy Consumption in the GCC

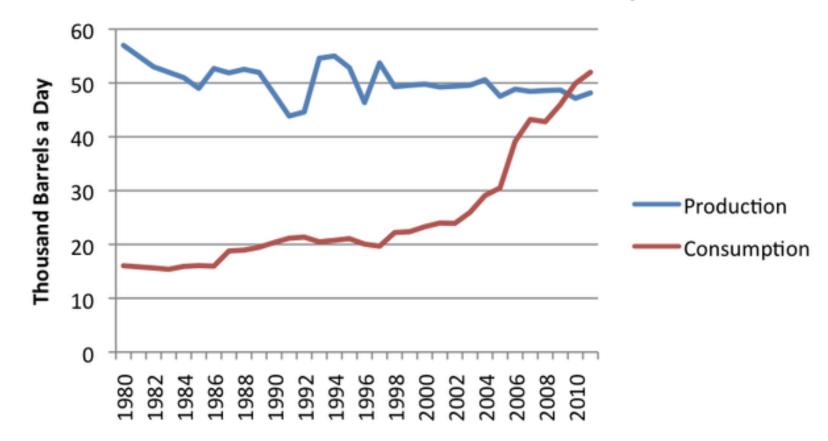


Source: Intelligence Economic Unit



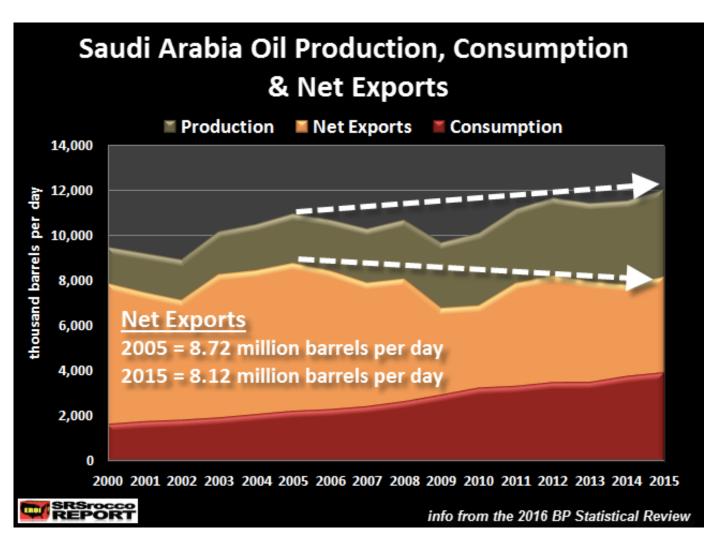
 Growing internal consumption leading to less revenues from oil exports or even need for oil imports (Bahrain)

Bahrain - Oil Production and Consumption



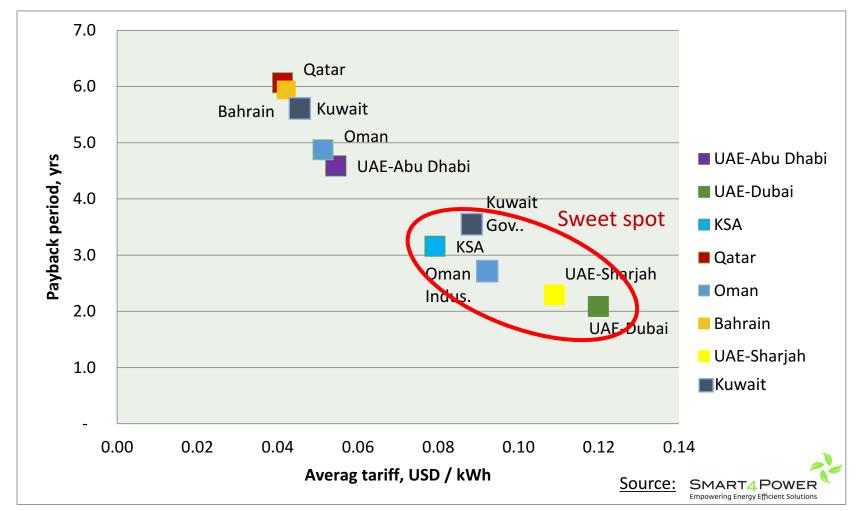


- Growing domestic consumption leading to less revenues from oil exports
- Barrel price at a bottom
- Subsidies on energy consumption are becoming impossible to finance and therefore are reducing
- End-user energy prices are increasing





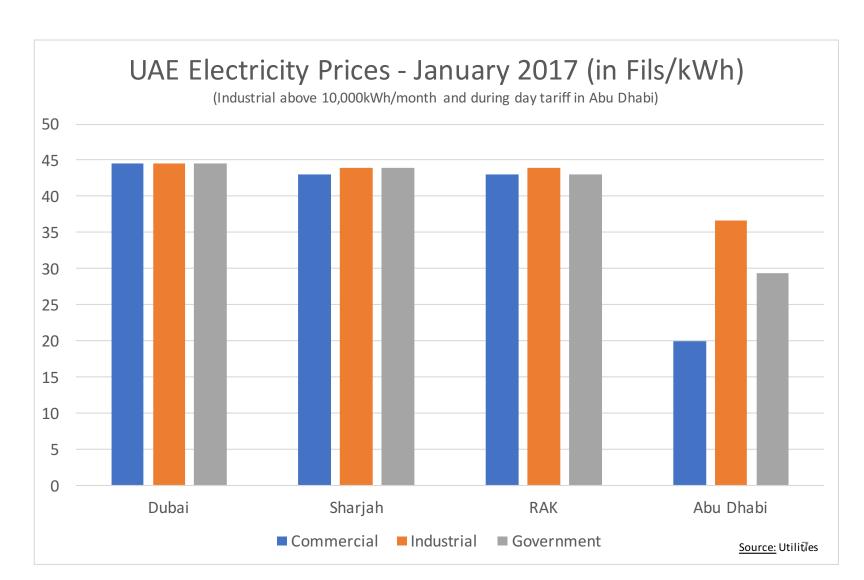
- Higher tariffs produce shorter paybacks and stimulate energy efficiency
- Sweet spot for KSA, UAE (except Abu Dhabi) and now Oman Industrials & Kuwait Government







- Sharjah & RAK prices equivalent to Dubai
- Doing retrofits in Sharjah or RAK is as attractive as in Dubai
- Paybacks in Abu
 Dhabi are longer

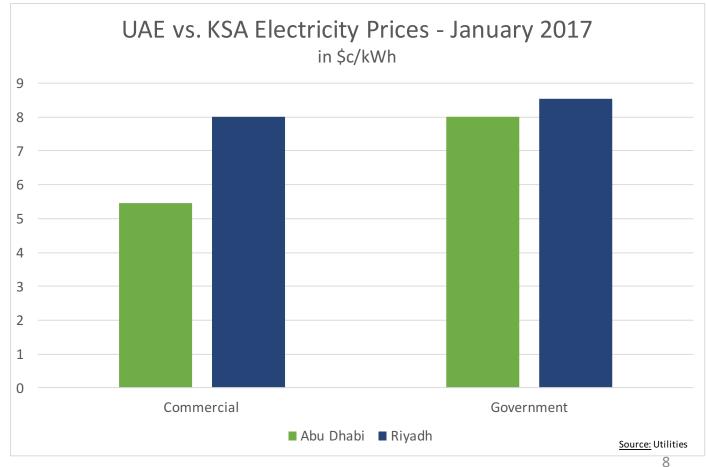






KSA Electricity Tariffs

- KSA electricity prices (in some segments) are higher than in Abu Dhabi
- It is more attractive to do projects in KSA than in Abu Dhabi







Dubai - Energy Demand Side Management program with 8 initiatives

to conserve electricity and water. Etihad ESCO was created as a

Super ESCO to retrofit 30,000 buildings by 2030 through ESCOs

Abu Dhabi -Tarsheed DSM programme, Super ESCO is being prepared for

buildings retrofits, Municipality to retrofit all street-lights

Sharjah -Declaration of "**Sharjah City of Conservation**" published, **ESCO**

program in preparation, Energy Efficiency unit created

RAK -RAK municipality created a unit for managing energy demand

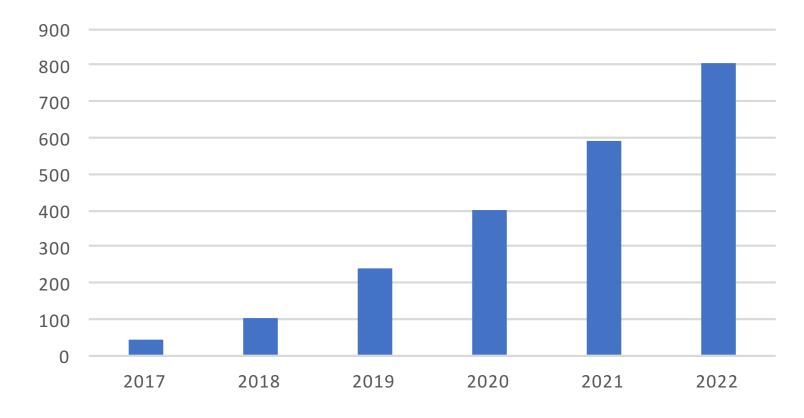
Federal -MoID & MoENR to retrofit street-lights and Federal buildings



UAE market size forecasts

- Market growing from USD45m in 2017 to USD800m in 2022
- CAGR of 78% from 2017 to 2022

UAE Energy Efficiency Investments (USD mio)







PUBLIC SECTOR

-SEEC (Saudi Energy Efficiency Center) established in 2010 to develop energy efficiency initiatives.

-NESCO (National Energy Services Company) created in 2016 with a capital of USD500m to retrofit all public buildings.

PRIVATE SECTOR

-Very favorable market dynamics due to the recent price hikes and end-users fears of future hikes

-Several significant projects being started by ESCOs





- Oman very recently adopted a time-of-use (ToU) cost-reflective tariff (CRT) structure for their largest ~8,500 customers as of Jan 1 2017
- The majority of impacted customers are Government and Commercial, but the ones that consume the most energy are Industrials
- Demand reduction activities such as ISO50001 and ESCO retrofits will be stimulated by these new prices
- Some building retrofits start to happen in the private sector





- Kuwait recently increased its tariffs: x2 for Commercial & Industrial and x12.5 for Government
- Audits of series of government buildings have shown significant savings possible (over 40%)
- Building retrofit program through ESCOs in discussion/preparation at government level



Conclusion

- Energy Efficiency market growth in the GCC is highly dependent on tariff reforms and government initiatives - but outlook is very positive
- UAE is now a vibrant market and a role model for the region
- KSA expected to open-up and become a massive market
- Project Financing availability for Energy Efficiency still a major barrier in the region