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ENERGY EFFICIENCY IN SAUDI ARABIA

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STRUCTURE

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1. INTRODUCTION

Status Quo

- 32,5 Mio. Inhabitants – 65% aged under 35
- Installed capacities: more than 80GW
- 3rd biggest energy consumer worldwide per household (24MWh 2014)
- Highest oil consumption per capita worldwide
- Energy subsidies: 9% of GDP (for oil products and electricity sector)

Forecasts

- Until 2030: domestic energy consumption to double
- Until 2050: population to double
- Yearly energy consumption increase: approx. 5%

2. ON THE IMPORTANCE OF ENERGY EFFICIENCY

- Historically low energy prices in KSA – Entitlement mentality
- Low (subsidized) energy prices not favourable towards efficient/rational energy consumption
- Current energy production: oil and gas (approx. 50/50)
- KSA still heavily reliant upon oil revenues
- Expected further growth in energy consumption threat to oil exports
- Domestically burned oil = opportunity costs

→ Current energy consumption path not sustainable

→ Energy efficiency to abate State's financial burden

→ Energy efficiency in line with Saudi Vision 2030

3. KEY MILESTONES

- 2003: NEEP launched – National Energy Efficiency Programme
- Prior to 2010: no centralized state organ dedicated to energy efficiency
- 2010: creation of SEEC – Saudi Energy Efficiency Centre
- 2012: introduction of SEEP – Saudi Energy Efficiency Programme
- 2013: introduction by SASO of new standards for air conditioners (increasing their minimum EER-Energy Efficiency Ratio)
- 2016 and 2018: increase in energy prices
- 11.2016: Paris Agreement signed – KSA‘s commitment towards Climate Change
- 10.2017: creation through PIF of a Super ESCO
- Until 2020: energy subsidies to disappear (might be postpone up until 2025)

4. ABOUT SEEC

Core task

- To enhance energy efficiency in KSA
- Raise awareness on the topic in KSA

Achievements

- 2012, SEEP created: focus purely on demand side management, thus building, transport, industry – or 90% of domestic energy consumption
- SEEP's remit does not include issue of price reforms
- Since 2013: full-fledged programme with 12 teams made of 150+ professionals from 30+ entities
- 84 initiatives on-going at different stages (from feasibility to design but also in execution)
- Examples:
    - Standards and regulations for the transportation sector (fuel economy standard for light duty vehicles; tire rolling resistance/wet grip; fuel economy label; HDV regulations)
    - Enforcement of energy intensity targets for existing and new plants in the industry, as well as electric motors standard and energy management system (ISO50001)
    - Design and issue of 18 energy efficiency standards and regulations for the buildings sector (air conditioners, thermal insulation, white goods, water heaters, lighting, Saudi Building Code)

5. CHALLENGES AND OPPORTUNITIES

- KSA's geography-topography (climate, surface, etc.)
- Remaining low energy prices – subsidies' financial burden
- Entitlement Mentality – Saudi energy consumption behaviour
- Clock ticking for energy efficiency to thrive in KSA

- Still widely untapped energy efficiency potential
- Government's stated commitment towards more energy efficiency
- Needs for more ESCOs in KSA – jobs creation in KSA
- Needs for more energy efficient devices (away from cheap ones)
- Young Saudi population – flexible mind-set to adopt more rational energy consumer behaviour

6. CONCLUDING REMARKS

- Expected sharp increase in energy consumption in KSA
  - Growing demography
  - Necessary economic diversification
  - Saudi energy consumption
- Necessary state organs in place - SEEC, Super ESCO
- Energy subsidies to gradually wane
- Young Saudi population to be involved in energy efficient efforts
- Saudi government committed to energy efficiency and spread of renewables
- Energy efficiency (backed by renewables) to allow KSA to maintain its role as global energy actor

Thank you very much for your attention.

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