

Virtual Workshop Agenda

Saudi Arabia Energy Balance Energy Data Transparency, Energy Policy Scenario Models

Tuesday, October 19, 2021, 3:00 to 6:00 p.m. Riyadh time (GMT+3)

OPENING REMARKS

3:00 PM – 3:15 PM Welcoming and Introduction

- **Dr. Fahad M. Alturki**, Vice President, Research, KAPSARC
- **Christof van Agt**, Director Energy Dialogue, IEF

Session 1

3:15 PM – 4:15 PM Saudi Arabia Energy Balance Data – KAPSARC energy models

KAPSARC has launched the Saudi Arabia energy balance in 2020 in collaboration with the IEF. The most recent update with the complete 2019 figures and 2020 estimations consolidate nationally sanctioned data including figures from the Joint Organisations Data Initiative (JODI) World Databases as well as figures based on KAPSARC models. IEF and KAPSARC have explored improvement opportunities to compile Energy Balances at the national level with Saudi Arabia as a model case. The session will revisit the Saudi Energy Balances compilation processes and methodologies with aim at improving accuracy of CO2 emission estimation derived from the balances. Our energy balance compilation efforts could support National Greenhouse Gas Inventories as per the Intergovernmental Panel on Climate Change (IPCC) guidelines.

- 1.1 Open data around energy in KAPSARC data portal (10 min)
- 1.2 Discuss KAPSARC energy models, KSA Energy Balance, energy supply and demand (10 min)
- 1.3 JODI energy data transparency mechanism as a mean to enhance overall data compilation capacity at national level (15 min)
- 1.4 IEA data process – Energy balance and relationship with CO2 emissions calculations (15 min)

Speakers:

- *Amar Amarnath, Energy Information Management Director, KAPSARC*
- *Abeer Al Ghamdi, Information Management Lead, KAPSARC*
- *Yui Torikata, Energy Analyst, IEF*
- *Roberta Quadrelli, Head of Energy Balances, Prices, Emissions, RDD & Efficiency Statistics, Energy Data Center, IEA*

Moderator: *Alaa Alarfaj, Info. Management Specialist, KAPSARC*

10 minutes Q & A

SESSION 2

4:15 PM – 5:00 PM Fuel demand – Transportation energy models

In Saudi vision 2030, the Kingdom of Saudi Arabia (KSA) is expected to transform into global logistics hub in the region linking trade across three continents: Asia, Europe, and Africa. To effectively achieve vision 2030 goals, KAPSARC transport models can supply insights, policy choices and simulations: availability of granular transport data drives transport models to produce meaningful and timely results.

In addition, development of the aviation model considering a Bottom-Up approach by considering historical data in a breakdown structure (i.e., airports, flights, type of aircraft, routes, distances, passengers, fuel type, among others) for domestic and international transport. This model will be based on disaggregated data collected.

One of the greatest challenges in assessing Saudi Arabia’s fuel demand for transport lies in the lack of data. The transition from paper to computer registration is recent, KAPSARC Oil Market Outlook team created a model based on the available data while trying to estimate the number of vehicles based on fuel consumption from fuel stations.

- 2.1 Saudi Aviation Transport Model (10 min)
- 2.2 Saudi Energy Decision Model for Maritime Sector (10 min)
- 2.3 Creating Saudi Arabia’s vehicles model (10 min)

Speakers:

- *Dr. Andres Guzman, Research Fellow, KAPSARC*
- *Dr. Mehbub Anwar, Sr. Research Associate, KAPSARC*
- *Hamid Al Sadoon, Sr. Research Associate, KAPSARC*

Moderator *Abeer Al Ghamdi, Information Management Lead, KAPSARC*

15 minutes Q & A

SESSION 3

5:00 PM – 6:00 PM Power generation – Renewable data, power model and energy assessment tool

Renewables Data Availability, KAPSARC KSA Power Model, KSA Building Residential Energy Efficiency Assessment Tool

The kingdom aspires to retire liquids from its power sector by 2030. In other words, the energy mix will comprise gas and renewables only. In this presentation, we assess the impact of this switch on gas off take, carbon emissions, and generation cost.

The role of IRENA in the international energy statistics community, of the current state of KSA data in IRENA publications and recommendations on how to improve them.

Open energy efficiency simulation tools support improving energy understanding to home owner. The KAPSARC Building Energy Assessment tool (KBEAT) is a web-based energy analysis tool designed to assist users in estimating the end-use electricity consumption for existing or newly-designed residential buildings.

- 3.1 IRENA’s renewable energy statistics (20 min)

- 3.2 Role of renewables in reducing emissions in the Saudi power sector (15 min)
3.3 Saudi power consumption in residential sector – KAPSARC energy efficiency assessment tool (10 min)

Speakers:

- *Gerado Escamilla, Associate Programme Officer, Energy Statistics, IRENA & Nicolas Coent, Associate Professional, Energy Statistics, IRENA*
- *Dr. Amro El-Shurafa, Research Fellow, KAPSARC*
- *Mohammed Al Dubyan, Senior Research Associate, KAPSARC & Abeer AL Ghamdi, Information Management Lead, KAPSARC*

Moderator: *Amar Amarnath, Energy Information Management Director, KAPSARC*

15 minutes Q & A

Closing Remarks: *Amar Amarnath, Energy Information Management Director, KAPSARC*