

## LONG-TERM ENERGY SCENARIOS Session 8: Communicating and responding to uncertainties in scenarios

BY

Michelle Akute

Manager, Energy Planning

**Energy & Petroleum Regulatory Authority** 

9-11<sup>th</sup> September 2024

5<sup>th</sup> International Forum on LTES



#### **EVOLUTION OF UNCERTAINTIES**



Focused more on supply	Models introduced	Refined assumptions
5000+ MW project	Econometric modelling	Better data

Most important uncertainties

- Data on demand forecasting, profiles
- Uncertainties around new technologies: storage, e-mobility, e-cooking
- Integrated planning than individual planning



#### **ROLE OF ENERGY SECTOR IN DEVELOPING POLICY ACTIONS**



>EPRA's mandate to establish a regulatory framework guided by different studies:

**INEP Regulations** 

• Introduces integrated energy planning in the sector

• Counties now mandated to do their energy plans feeding into National plan

Ancillary services study

• Allow for grid readiness in accommodating more VREs

**Power market Regulations** 

• Introducing an Electricity market in the country's power system

E mobility Guidelines

• Guides sector on introduction of E mobility

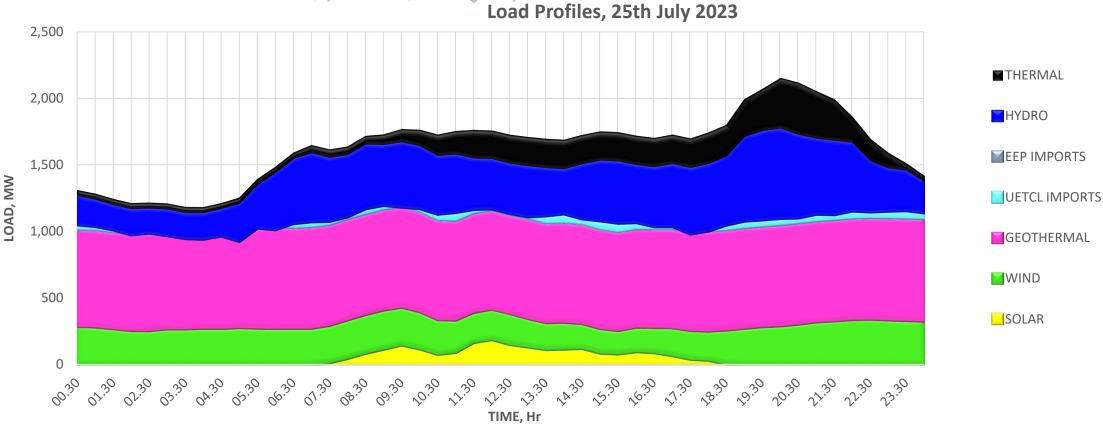
> Key Stakeholders are involved from the onset of studies/development of regulations



### E-MOBILITY APPLICATION ON KENYA'S ELECTRICITY SECTOR



LOAD PROFILE-HIGH PEAK LOAD (2,164MW) 25TH JULY, 2023



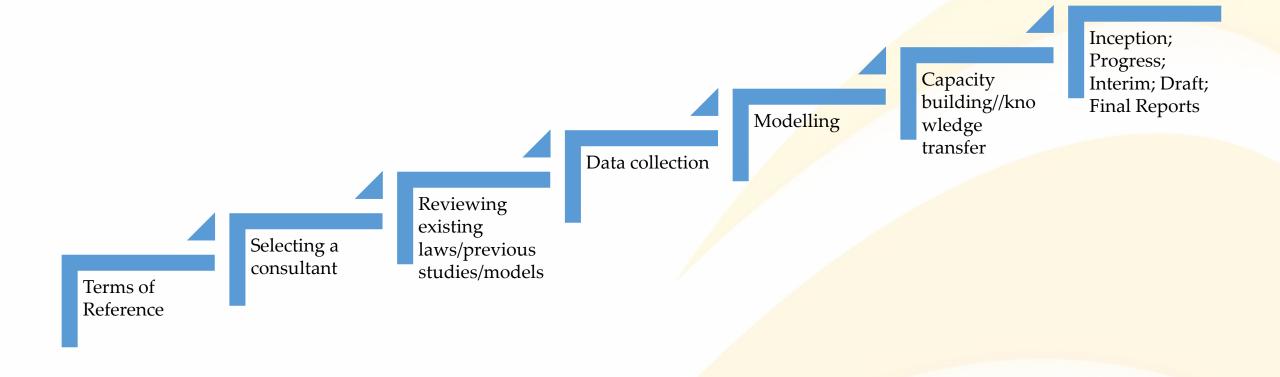
> 70% EV charging can be done from 22:00Hrs to 06:00Hours. This will help bridge the gap between offpeak load available generation capacity as well as raise the average demand.



#### **EXAMPLE OF STAKEHOLDER ENGAGEMENT**



✓ Steps and future actions to achieving the goal of a sustainable transition to e-mobility.



#### PERCEPTIONS AND PRIORITIZATION OF UNCERTAINTIES IN PLANNING PRACTICAL PROPERTY AND PRIORITIZATION OF UNCERTAINTIES IN PRIORITIZATION OF UNCERTAINTIES UNC

#### **PRIORITIES**

- Cost implications on consumer tariffs is seen as most important outcome
- Climate targets are not used to make decisions
- Addressing current challenges facing the sector for example integration of VREs, biomass for cooking as a health pandemic, wasting geothermal resources
- Addressing energy security while maintaining affordability
- Introducing new technologies to the system E mobility, E transport, storage systems
- Protection of National reserves, indigenous tribes and cultures with energy resources

#### **SCOPE**

 Apply to different ministries, sectors, and institutions





# Thank you

**Energy & Petroleum Regulatory Authority** 

Telephone: +254 720 968 467

Email: <u>info@epra.go.ke</u>

Website www.epra.go.ke

Facebook **EPRAkenya** 

Twitter @EPRA\_Ke

