



UETCL

Transmitting power for development

Integration of Renewable Energy Source, a
Pathway to a Sustainable Energy Future

UGANDA PERSPECTIVE

Presentation by Eng. Diana Nakabugo
CP3P E UETCL



UETCL Mandate

Uganda Electricity Transmission Company Limited (UETCL) is a power transmission company which is responsible for 400kV, 220kV, 132kV and 66kV high voltage power transmission grid and related substations

Planning, Development, Operations & Maintenance.

As such, UETCL has the following licenses:

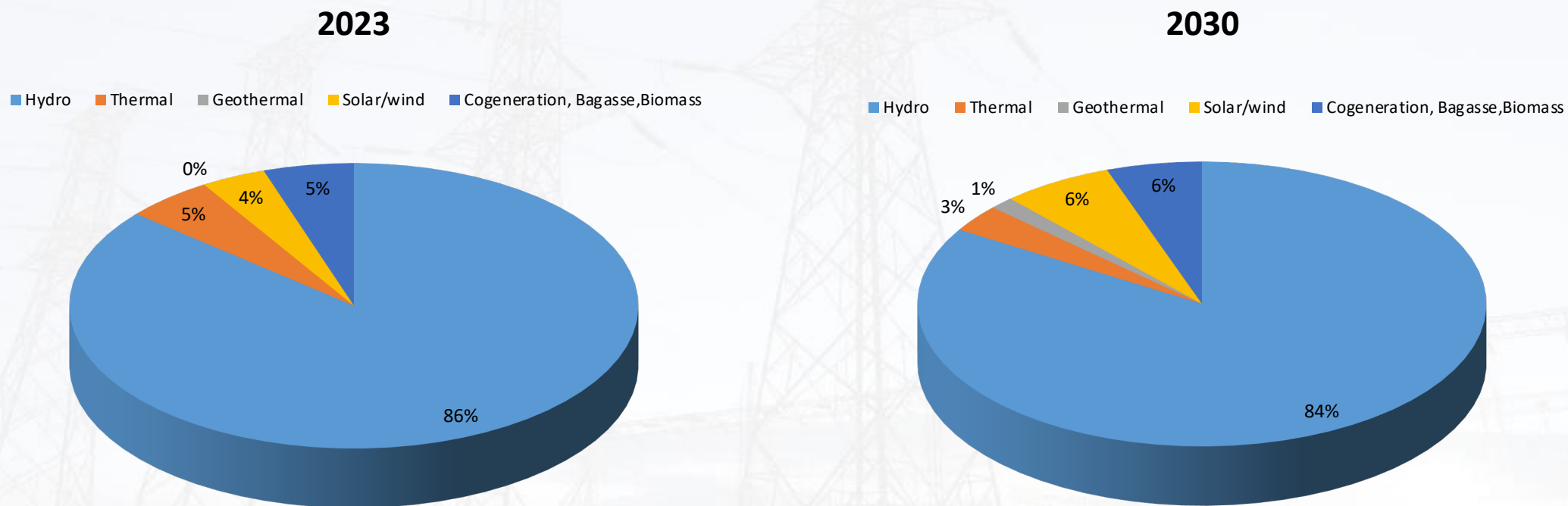
- **Bulk power purchase and sales**
- Own and operate high voltage power transmission grid
- **System operation**
- Power export and import; and
- Public infrastructure provider for optic fiber communication link



Energy Capacity and Access

Uganda's generation capacity - 1,357MW

Nationwide electricity access is to 51%, with 24% on-grid and 27% off-grid access (SDG7)



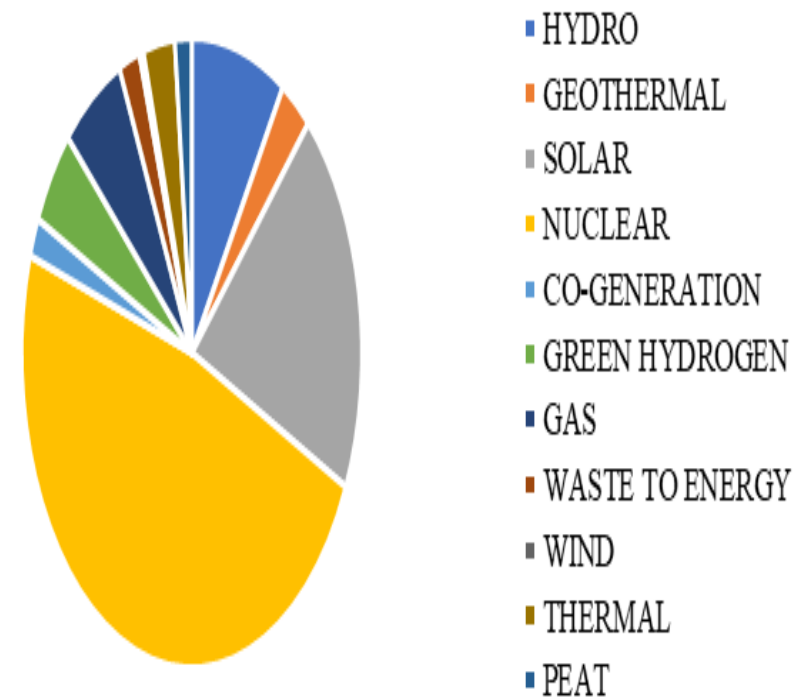
Vision 2040 Targets

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Uganda's Population	<ul style="list-style-type: none"> expected to increase from the current 35 million to 60.4 million by 2040
Average Energy Consumption per capita	<ul style="list-style-type: none"> 3,668kWh/person/ year by 2040
Access to National Grid	<ul style="list-style-type: none"> 80%
Installed Generation Capacity	<ul style="list-style-type: none"> 41,738MW by 2040

New Vision 2040 Target – 52,000MW

(Uganda's Energy Mix)



Role in Integration of Renewable Energy

- System Operation to ensure stability when renewable energy sources are connected to the grid especially intermittent energy sources
- PPAs (assessment of power evacuation solution and impact on existing grid). Open to utilization of battery storage by IPPs
- Ensuring adequate spinning reserve
- Reactive Compensation Equipment by UETCL to maintain voltages



Efforts towards modernizing the Grid and Introducing SMART Grid Solutions

- SCADA
- Asset Management Monitoring system for Grid Assets
- Remote Metering
- Fault Recorders and Locators



Efforts to enable energy access and accelerate electrification in rural and remote areas

- Provision of supply points to the distribution grids in all our projects
- Embed Rural Electrification projects in the Transmission Projects to ensure uptake
- Execute PPAs with IPPs that directly provide power to remote areas within their vicinity
- Shield Wire Technology at Planning Stage



Policies/Regulations that have been introduced to boost investment in sustainable energy in Uganda

- The 1995 Constitution of the Republic of Uganda (as amended) and : the Electricity Act 1999 (As Amended 2022) provides the regulatory framework for the electricity sub-sector
- The policy framework is comprised of the Energy Policy 2002 (Amended 2023) whose goal is “to meet the energy needs of Uganda’s population for social and economic development in an environmentally sustainable manner”
- The Renewable Energy Policy (2007) which aims to increase the share of renewable energy in the national energy mix and energy consumption through renewable energy to >95%

Other Policies

- Oil and Gas Policy 2008
- Electricity Connections Policy (2018)
- Gender Policy (2007)
- Climate Change Policy (2015)
- Environment and Social Safeguards Policy (2018)



Capacity Building and Skills Development initiatives for Women Employees and Service Providers

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- Gender Equality is embedded in project Preparation and Implementation
- Engineering Professional Bodies (ERB and UIPE) provide opportunities for Women in Engineering; both in capacity building and support of businesses in the engineering sector





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THANK YOU

 Plot 10 Hannington Road, Nakasero

 P.O Box 7625, Kampala, Uganda

 +256414233433 / 0414802000 / 0312802000 / Toll Free 0800277002

 transco@uetcl.com

 www.uetcl.go.ug