



United Nations



HIGH-LEVEL DIALOGUE ON
ENERGY

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HIGH-LEVEL DIALOGUE ON ENERGY

**MINISTERIAL
THEMATIC
FORUMS**

21-25 June 2021 | Virtual

7 AFFORDABLE AND
CLEAN ENERGY



**UN High Level Dialogue on Energy 2021 - Ministerial Thematic Forums – VIRTUAL
Side Event by INFORSE: Local Solutions, Eco-Village Development,
100% Renewables, E-2/3 Wheelers; South Asia & East Africa
June 22, 2021 6 AM - 7 AM (New York time)**

**A Case for Renewable Energy for Uganda
By Kimbowa Richard,
Uganda Coalition for Sustainable Development (UCSD)**



Proceedings on INFORSE: https://www.inforse.org/INFORSE_at_UN_ENERGY2021_HLDE.php UN HLDE Energy 2021: <https://www.un.org/en/conferences/energy2021>



UN ENERGY 2021 High Level Dialogue on Energy - INFORSE Side Event: June 22, 2021
Local Solutions, Eco-Village Development, 100% Renewables, E-2/3 Wheelers; South Asia & East Africa

INFORSE
International Network for Sustainable Energy

Why the 100% RE for Uganda by 2050?

- **UCSD is preparing a 100% Renewable Energy Scenario Report** as part of the EASE CA Project (**work in progress**)
- Status:
 - **Biomass use must be reduced**, in particular wood to stop deforestation. Biomass (wood, etc.) resource is with sustainable use around 26 mio. ton/year of wood + residues, is currently overused.
 - **Proportion of the Uganda's pop. with primary reliance on clean fuels and technology** stands at only 0.6 per cent
 - **Country projects to reverse this to 60 per cent electricity connectivity access by 2027** (huge undertaking that can be harnessed thru early promotion of RE options below)
 - **Potential for RE is high**
 - ✓ **Geothermal power 1500 MW**, not developed today
 - ✓ **Solar power > 150,000 MW**, less than 100 MW developed today (a large part off-grid)
 - ✓ **Hydro power 4800 MW**, 930 MW developed today
 - ✓ **Wind power, around 600 MW**, maybe more

Uganda's Demand for Energy – Important Assumptions (based on the on going process to prepare 100% RE Scenario)

- **Population grows, from 45M today, to an expected 100M by 2050**
- **GDP continue to grow, 5%/year is expected. Then GDP will be 4.3 times bigger in 2050 than in 2020**
- **Demand for cooking, transport, light, industry etc. will grow in proportion with population and GDP.** With the governments ambitious plan of universal electricity access by 2030, household electricity demand will grow fast 2020 - 2030
- **Increasing energy efficiency will limit growth** in energy demand for cooking, transport, light, industry etc.; but energy demand will still grow
- **With new, efficient technology, large demands for fuel can be replaced** with much smaller demands for electricity: smart cooking, electric vehicles etc.

Rationale for the 100 % RE pathway for Uganda

- **Absence of sufficient choice in accessing adequate, affordable, reliable, quality safe and environmentally friendly energy services** to support economic and human development) requires substantive synchronized efforts to fully implement the SDGs (reducing poverty and hunger, improved health, water and sanitation, education, climate action, reversing biodiversity loss, etc.)
- Therefore, **100% RE is also a step towards:**
 - Responding to **Uganda's own National Development Plan (NDP III for the period 2020/21 – 2024/25** ('fulcrum' to implement the set 18 Programmes in this Plan)
 - The **on going green recovery (COVID19) efforts**
 - **Raising ambition in Uganda's climate plan (NDC)** especially the **adaptation actions and strengthening / building resilience of communities** that heavily rely on biomass as sole source of household and commercial energy, cushioning nature-based activities incl. small holder & rain-fed agric.
 - The **SE4ALL Initiative**

Looking ahead: How to work towards a 100% renewable development

- **Efficient cooking** - key
- Make **charcoal production much more efficient**, from <15% today to 33%
- **Expand solar power** to 50,000 MW
- **Expand geothermal** power to 1500 MW
- **Expand hydro** to 4500 MW
- **Expand windpower** to 600 MW
- **Expand electric interconnectors** to 3,000 MW capacity
- **Change transport** gradually to electricity, hydrogen and new fuels
- **Biomass power plants** to **balance demand and supply**



Conclusion

- It is a **PLUS to scale up Decentralized Renewable Energy (DRE)** as part of **Uganda's energy share** ---→ addresses Sustainable Development Goals (SDG7) as well as other SDGs to transform our world on education, maternal health, provision of clean and safe water, among others.
- RE especially DRE, has huge potential to **leap-frog rural development** through value addition in **agriculture**, securing longer working hours for **health centres and schools**, creating **employment opportunities**, among others.

Thank You for Listening!

For more information :

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Catalogue of Local Sustainable Solutions - East Africa

60 ONLINE CASES

 Cooking	 Cooking fuels	 Light, Electricity	 Water	 Growing Food, Oils	 Transport	 Solar Heat & Others	 By Country
							

     

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