

# Presentation DALILA

## Sustainable Business and Renewable Energy

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# Content

- Introduction of PGD SBRE-UCU
- Interest in renewable energy
- Renewable energy in Uganda
- Why the PgD in SBRE

# PGD- SBRE at UCU

Post Graduate Diploma in Sustainable Business and Renewable Energies.

## Objectives

- To increase the local competences on renewable energies and sustainable business/green economy.
- To promote the use of **innovative technologies** by increasing the capacities of the university laboratories in order to provide vocational training and practical skills

**Duration: 1.5 years**

# Continuation

Renewable Energy Technologies and decentralization of energy production

- (Hydro power, solar, biomass, geothermal, grid integration)

Energy and sustainable development

- (sustainable energy, cities, society and economy)

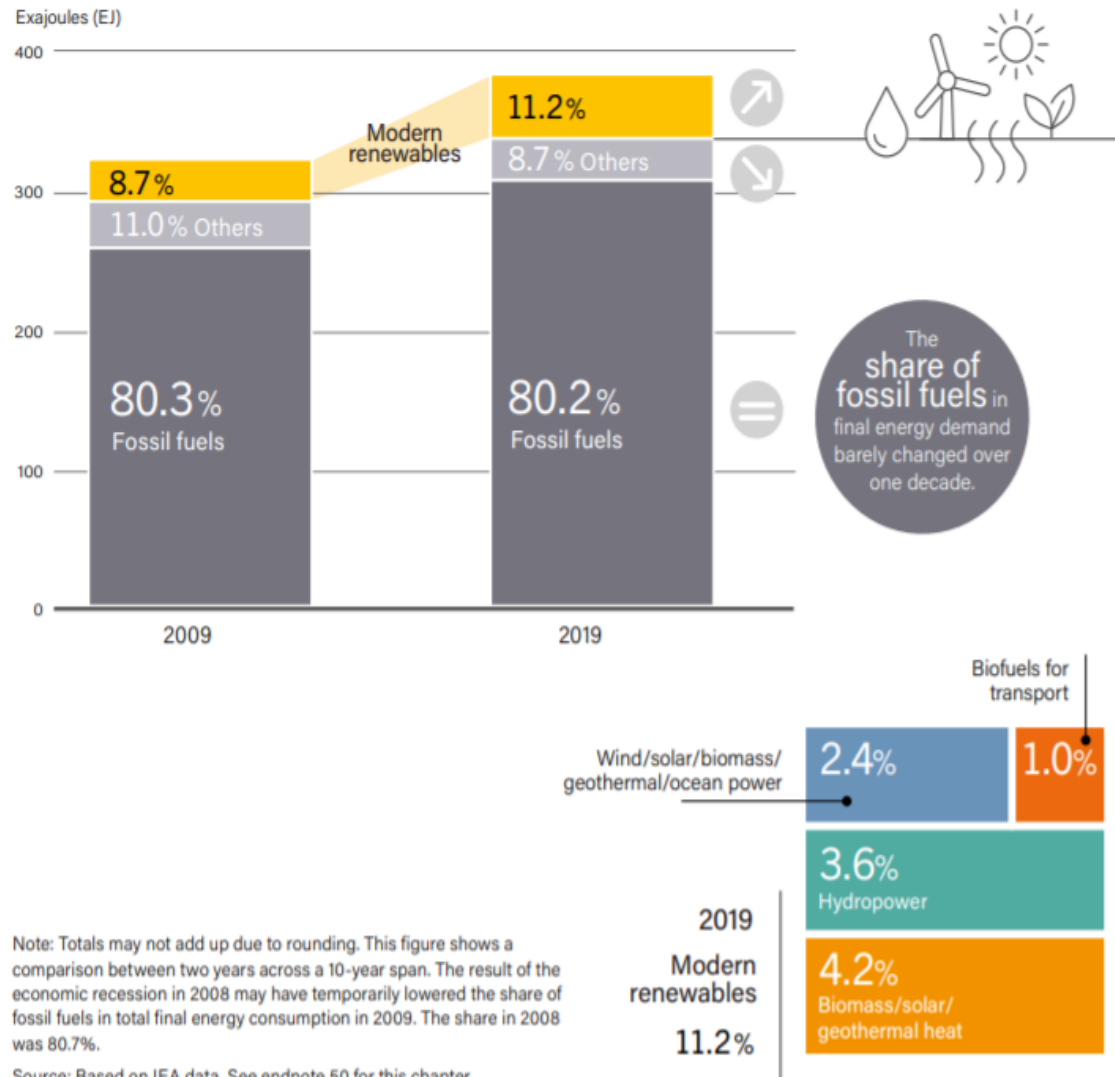
Energy Efficiency and storage applications

- (energy consumption, efficiency in buildings, industries, energy management and storage)

# Why the interest in renewable energy?

- Replenishment of resources used(solar, biomass wind, water/hydro)
- Energy security(for countries, companies etc.-Iceland, Costa Rica)
- Reduced environmental negative impacts
- Versatility in application (stand alone/load based systems, grid, sectors)
- Jobs created

# Renewables share in final energy consumption



2020 Covid 19 pandemic caused increased pressure to strengthen plans on climate change.

Notable purchase of more renewables by private sector.

There is still more to do.....

Energy transition is fast being accepted.

# Continuation

- Entities involved more in REs( BMW(100% operation, electric vehicles), Total Energies)
- Power supply companies(traditional) investing in REs
- Towns, cities, countries moving towards 100% renewable energy(Nordfriesland-Germany, Iceland etc.)

# Continuation

## Renewable energy is **NOT** new in Uganda

- Hydropower dominant contributor power generated-81%
- Solar system installation both small at least large scale-4 plants
- Biogas technology- household, institutional now large scale(Kakira, Lugazi, NWSC).
- Wind power technology still testing(small minigrids) 20MW in pipeline 2024.



# Uganda's power generation

- Hydro - 1,023.59 MW
- Thermal - 100 MW **Biomass caters for 90% cooking demand**
- Cogeneration - 63.9 MW
- Grid-connected Solar - 60 MW

Access to electricity nationally: **at least 57%(19% on-grid, 38%off grid)**

Urbanization rate-**5.4% annually**

# Policy

## **1<sup>st</sup> Energy Policy for Uganda (2002):**

### **Renewable energy policy 2007**

increase the use of modern renewable energy, from the current 4% to 61% of the total energy consumption by the year 2017.

### **Energy policy 2019(Draft)**

The Government shall promote the sustainable development and utilization of all **renewable energy resources** in a socially and environmentally responsible manner.

# Continuation

## Renewable Energy

- Inadequate information and data on renewable energy resources (wind and small hydropower).
- High upfront costs for the development of renewable energy resources and technologies.
- Limited **enforcement of quality standards** for renewable energy technologies and products-(trained graduates UCU, MUK, course units in Busitema, Ndejje)

# Strategies- DALILA contribution

- National **renewable energy resource assessments**-Empowered **Human resource from DALILA project-PGD SBRE at UCU**.
- Promote **technology transfer** in the development of renewable energy projects through regional demonstration centres(CREEC-Makerere, ERDC Ndejje, **UCU-SBRE**).
- Promote **local financing** of renewable energy projects and support public private partnerships(**Trained graduates-combining entrepreneurship/business and engineering**).
- Contribute to research and innovation in the sector through the **National Renewable Energy Platform**

# PgD SBRE DALILA- Why is it Unique?

- Training in renewable energy and business-(**practice**)-become **business and energy professionals**.
- **Problem based approach** to solving problems related to renewable energy-sanitation-energy efficiency, storage, environment thematic areas while incorporating business and market knowledge.
- The target group; **versatile**(graduates, entrepreneurs, private sector interested in attaining skills/knowledge, networking).
- Platform for collaboration amongst the 6 institutions+private sector players.

End

Thankyou