GET.transform

Transforming Energy Sectors Globally

Our experience supporting LTES development in partner countries
What is GET.transform?

- European technical assistance programme supporting national and regional public partners in LAC and Africa to advance their energy transitions.

- Offering public partners a menu of tailored advisory products delivering on their objectives.

- Complementing services of other technical assistance programmes.
Besides the countries shown above, GET.transform has carried out power system decarbonisation analysis for Burkina Faso, Kenya and South Africa and is continuously publishing case studies on minigrid frameworks for other countries in Africa.
1) Development of Scenarios

GIZ Vision 100: guiding long-term planning support (I)

Universal (100%) electricity access

Towards 100% renewable energy use

Study: Access + Decarbonization of power sector + deep transport electrification by 2050: Burkina Faso, Kenya and South Africa

Objectives
- Gain high-level insights into order of magnitude of required investments.
- First level outline of the transformed power sector in 2030 and 2050 and identify key considerations.
Key aspects to investigate in the development of scenarios for the energy transformation

- **Electrification** of energy services (e.g. transport) and sector coupling
- System **flexibility** in long-term planning
- Cross-border **interconnection**
- Integrated **access** planning (transmission, minigrids, productive use of energy)

**Do not underestimate considerations on:**
- Renewable **potential**
- Distributed generation
- Technology and fuel **costs**
In 2030, uncontrolled charging profile is considered to calculate demand from e-mobility. In 2050, controlled/ smart charging is considered (coinciding with PV production, peak flattened).
Opportunities to improve the development and use of LTES

Governance & Institutional structure

• (Re)Define roles and mandates for national institutions in charge of planning and policy making around the development and use of LTES

• (Re)Define planning processes that seek to align climate, energy, power, transport, access and socio-economic analysis, policy making and target setting

Purpose and communication

• Create additional scenarios that propose more ambitious and sustainable pathways, serving to kick-off the “uncomfortable” conversations on the issues and challenges
3) Scenario capacity building

Capacity building for LTES development and use

• Ownership and capacity building are key for the sustainability of LTES processes!

• Example of good practice from technical assistance support:
  • CliEEN Modelling Network (DIAPOL-CE program factsheet)

• Other good initiatives
  • Energy Modeling Platform (EMP) – Europe/Africa (link)
Some further recommendations to support the expansion of modelling for the energy transition

- **U4RIA Goals** see [this preprint](#): Ubuntu/community, Retrievability, Reusability, Repeatability, Reconstructability, Interoperability, and Auditability
  - Set of requirements to govern the model development process

- **Key Principles** of the Roundtable Initiative available [here](#)
  - Key principles deal with the *way in which international donors cooperate and support modelling* activities
Thank You and GET in touch!

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For more information visit www.get-transform.eu
Key results
- Insights on current system (2019)
- Demand, including access and electrification of road transport
- RE resource assessment
- Capacity and generation mix 2030 – 2050 (incl. unmet demand, excess RE)
- Investment costs (incl. high-level estimates on Transmission)
- Emissions

Key findings
- In 2050, possible to achieve 100% RE penetration due to dispatchable RE (geothermal and hydro)
- Even then, large amount of new storage capacity would be required
- Regional integration with Ethiopia can bring costs down

![Capacity Mix and peak demand](image)
GET.transform: a wide streamlined Public-Sector Advisory Approach

Transformational Topics
- Integrated Energy & Climate Planning
- Renewable Energy Grid & System Integration
- Electricity Access

Regional Cooperation
- Up-scaling and mainstreaming experiences
- Leveraging regional cooperation opportunities
- Working hand-in-hand with bilateral and multilateral initiatives

Country Transition Support
- Tailored and agile energy transition advisory services
- Standing pool of power sector & development experts
- Tapping into global GIZ experience and network

Africa (AUC)
Latin America (ECLAC)
Mozambique
Uganda
Peru

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