

**LAURA GUTIÉRREZ**  
Technical Assistance Coordinator



# GET.transform

*Transforming Energy Sectors Globally*



*Our experience supporting LTES development in partner countries*

GET.transform is supported by



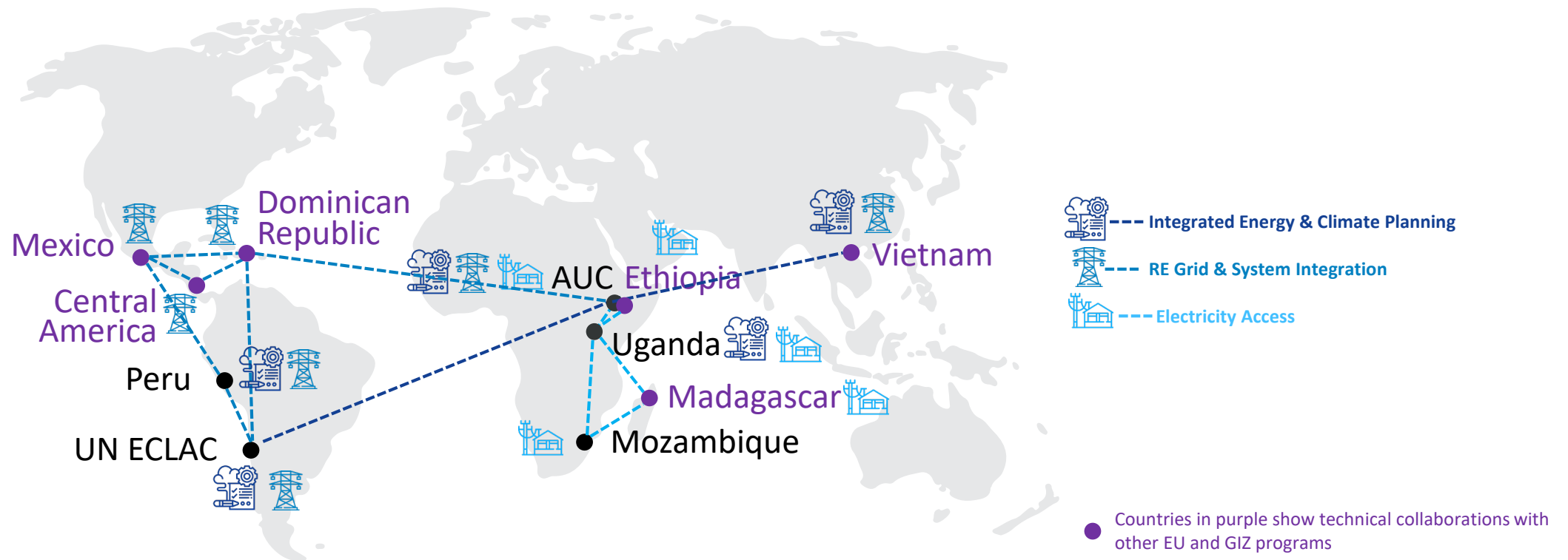
# What is GET.transform?

- 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.



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# Partner Countries & collaborations



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.

## 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.



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

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Key aspects to investigate in the development of scenarios for the energy transformation

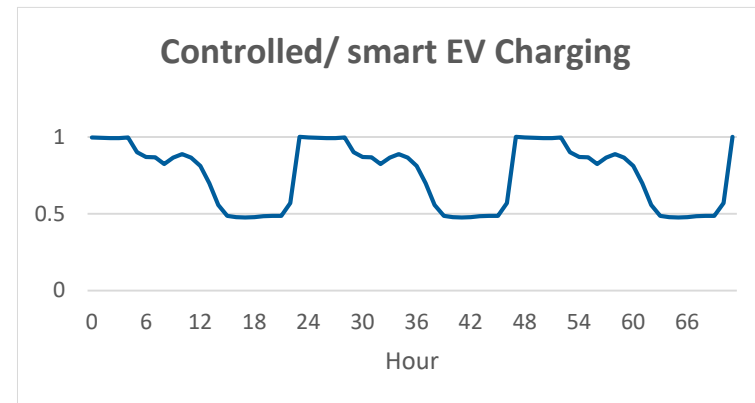
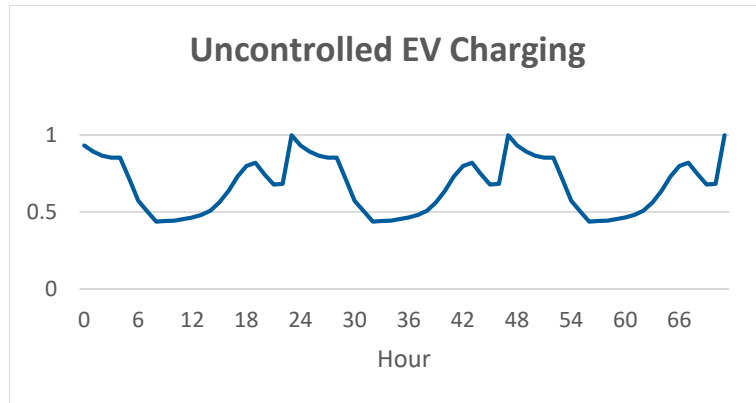
- **Electrification** of energy services (e.g. transport) and **sector coupling**
- System **flexibility** in long-term planning
- Cross-border **interconnection**
- Integrated **access** planning (transmission, minigrids, productive use of energy)

**Do not underestimate considerations on:**

- Renewable **potential**
- Distributed generation
- Technology and fuel **costs**

# A preliminary approach to model transport electrification from modelling high RE

- 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

## 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](http://www.get-transform.eu)

GET.transform is supported by



Ministry of Foreign Affairs of the  
Netherlands



# Results and findings of decarbonisation analysis for Kenya (I)

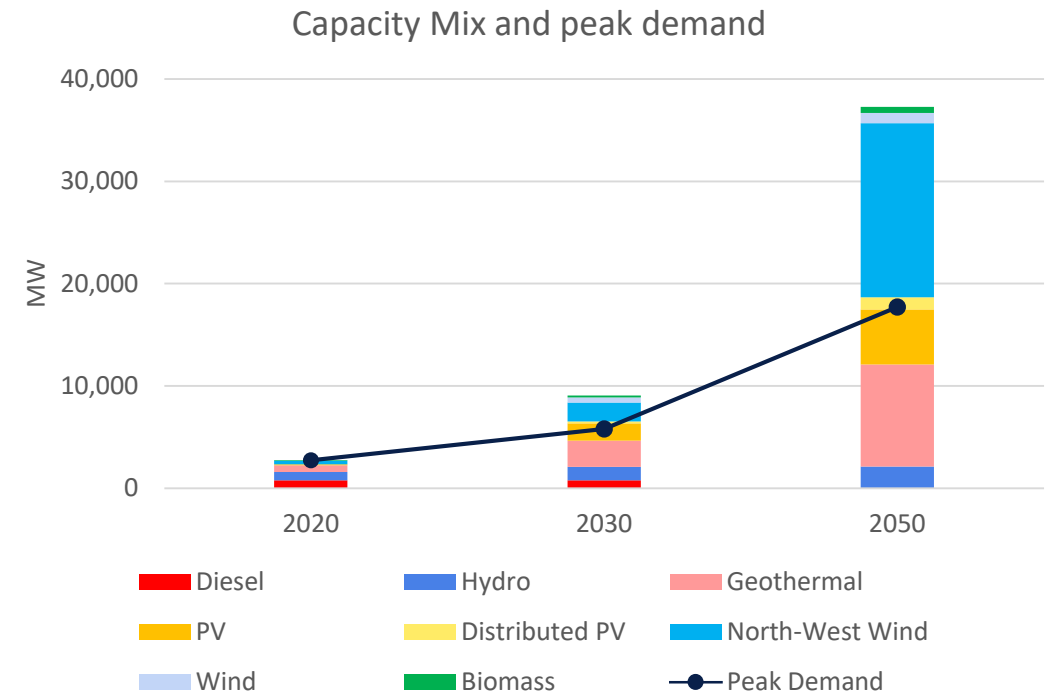


## Key results

- 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	2020	2030	2050
Total Installed capacity (MW)	2,955	8,868	37,272
Renewable capacity (MW)	2,197	8,110	37,272
Peak demand (MW)	2,726	5,783	17,715
Storage (MWh)	0	3,912	12,956

# 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**

**Africa (AUC)**

**Latin America (ECLAC)**

## Country Transition Support



**Tailored and agile energy transition advisory services**



**Standing pool of power sector & development experts**



**Tapping into global GIZ experience and network**

**Mozambique**

**Uganda**

**Peru**