**Sixth International Forum on Long-Term Energy Scenarios (LTES) for the Clean Energy Transition**

**Session 4: Institutional considerations for adopting modelling tools**

(This session addresses Thematic Area 3: Scenario Tools, Communication, and Stakeholder Engagement)

**Co-host**: GET.Transform /Climate Compatible Growth (CCG)

1. **Description**

This session will explore how countries have institutionalized open-source and other modelling tools within their planning systems, overcoming challenges such as staff turnover, funding gaps, and long deployment timelines. Panelists will share governance approaches that retain skills, enable rapid operationalization, and integrate models into permanent institutional processes. The emphasis is on how open-source tools can be embedded into national planning ecosystems for resilience, transparency, and agility—not on technical training.

From previous Global Network on LTES Webinar series it is evident that countries use a mix of both insourcing and outsourcing for their technical modelling capacity. Additionally, countries rely on a mix of open-source modelling tools, tailor made in-house tools, and proprietary/ closed source modelling tools. The diversity in approaches to modelling tools is further evidences in the [IRENA National Energy Transition Planning Dashboard](https://www.irena.org/Energy-Transition/Planning/Long-term-energy-planning-support/National-Energy-Transition-Planning-Dashboard) which features 99 modelling tools in over 225 energy planning documents from over 140 countries. While there is no silver bullet to meet national energy planning needs with regards to the type of modelling tools used, there is a push towards the adoption and usage of open-source modeling tools given the major benefits to national energy planners[[1]](#footnote-2). The usage of open-source tools ensures easy retention of skills, especially in cases where modeling work was outsourced to consultants as government officials can learn and take over the updating of models. Additionally, it is beneficial for the scientific and academic community to have access to open-source knowledge- as their continued research is beneficial for energy planning. Finally, the adoption and usage of open source tools results in modelers using data in similar formats which allows for easy data sharing between governments, enhancing regional energy planning and allowing for collaboration as countries plan for the energy transition.

1. **Objective**

This session is aimed at achieving the following objectives:

1. Facilitate the sharing of country experiences in their approaches to insourcing vs outsourcing technical modelling capacity.
2. Understand how governments decide on whether to use open source tools, custom in-house tools or proprietary/ closed source modelling tools for national energy planning.
3. Understand the challenges faced when adopting different styles of technical capacity and different types of modelling tools.
4. Share experiences in how governments encourage the integration of open source modelling in their national energy planning.
5. **Expected outcomes**

* Practical guidance on institutionalizing modelling tools for sovereign, adaptive planning, with frameworks for governance-led implementation.
* Strategies to build collaborative ecosystems, empowering LTES members to lead resilient, inclusive scenarios in their national contexts.

1. **Proposed Agenda (90 minutes)**

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| **Time** | **Content** |
| 7 min | Scene-setting presentation: *Institutional considerations for adopting modelling tools: Country Learnings from the Global Network on LTES*  Presenter: IRENA |
| 5 mins | Welcome remarks and introduction  Moderator: GET.Transform (CCG) |
| 60 mins | Round table with countries, including 3-4 minute opening statements  Panellists:   * Peru * Costa Rica * Canada (EMH) * Pakistan * ASEAN country * Denmark * Egypt * Cyprus * World Bank   Moderator: GET.Transform (CCG) |
| 15 mins | Q&A |
| 3 mins | Closing remarks |

1. **Suggested guiding questions**

* What governance and staffing strategies have helped countries retain modelling capacity and avoid over-reliance on a few individuals?
* How have countries implemented open-source tools quickly enough to meet planning needs while continuing to refine them?
* What institutional arrangements ensure that modelling skills, data, and results are shared and used across ministries and agencies?

1. See <https://github.com/DOESVTT/> [↑](#footnote-ref-2)