TCP on Energy Technology Systems Analysis Programme (ETSAP TCP)

The ETSAP TCP, established in 1977, is among the longest running TCPs. Its mission is to support policy makers in improving the evidence base underpinning energy and environmental policy decisions. This is achieved through energy systems modelling tools and capability through a unique network of nearly 200 energy modelling teams from approximately seventy countries. The ETSAP TCP develops, improves and makes available the TiMES (and MARKAL) energy systems modelling platform. It also provides training to energy modellers to use this platform to build national, regional and global energy systems models. In addition, ETSAP supports policy makers in undertaking and interpreting energy technology assessments and scenario analysis to inform policy decisions.

Main areas of work

The current work programme of the ETSAP TCP focuses on understanding and facilitating the energy transition to achieve the "well-below 2°C goal" of the Paris Agreement. Focus is on:

- Development and maintenance of tools and methodologies
- Supporting research and development activities to advance state-of-the-art analysis

Key accomplishments (2017-2018)

- "Limiting Global Warming to Well Below 2°C: Energy System Modelling and Policy Development" – an energy system modelling perspective on the feasibility of the ambition of the Paris Agreement
- Introduced unit commitment and dispatch features in TiMES modelling framework to improve modelling of variable renewable electricity
- Extended the global ETSAP TiMES Integrated Assessment Model (ETSAP-TIAM) to assess trade-offs and co-benefits between climate change and air pollution policies
- Collaborated with IRENA to compare TiMES and REMAP modelling frameworks

Priorities and projects (2019 – 2020)

- Contribute to the development of NDCs and well-below 2°C target
- Continue the development and improvement of tools, including modelling of variable renewables
- Develop new approaches including human behaviour in energy system models
- Improved modelling of the interaction between the energy system and the economy
### Multilateral collaborations

- The role of carbon capture and storage in integrated assessment models (with GHG TCP)
- Representation of hydrogen in energy system models (with Hydrogen TCP)
- The role of bioenergy in the energy system (with Bioenergy TCP)
- Promote wider adoption and improved use of long-term model-based energy scenarios (with IRENA, supporting a Clean Energy Ministerial campaign)

### Membership

- ENEL Foundation
- GE Global Research

### Why should your organisation become a member of the ETSAP TCP?

The ETSAP TCP is a unique network of nearly 200 energy modelling teams in approximately seventy countries doing energy systems analysis to inform energy and climate policy decisions around the world.

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### Upcoming events

Executive Committee Meeting & Workshop: Newcastle, Australia, 9-11 December 2018
Executive Committee Meeting & Workshop: Freiburg, Germany, 2-3 July 2020

www.iea-etsap.org

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