



European Climatic Energy Mixes



The **European Climatic Energy Mixes** (ECEM) is a 27-month EU Copernicus Climate Change Service (started in November 2015) led by the University of East Anglia (UK) in collaboration with Electricité De France (France), the Met Office (UK), ARMINES (France), the University of Reading (UK) and ENEA (Italy), and with input from the World Energy & Meteorology Council (UK).

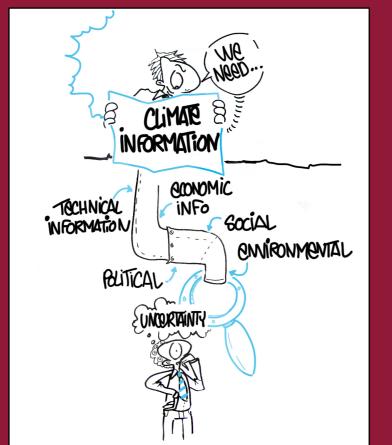




1. Motivation

The energy sector is undergoing a major transformation – increasing share of

power supply from variable renewable energy (RE) sources, demand variability is also increasing;



2. Impacts

ECEM provides input to energy experts in charge of anticipating the transformation of the sector, through either long-term planning or medium-term operational activities.

3. Objective

Integration of energy & climate information for energy mixes assessment

Is climate important for energy planning?

This is taking place against a variable and changing climate. Thus it is important to

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develop robust climate-based tools to advise energy planners Does the role of temperature on thermal plant efficiency, or the variability of renewable energies, or indeed the climate-related variability in demand impact your sector? If so, ECEM could assist you with your work.



What can climate research & development learn from interaction with energy sector?

ECEM service is produced in close collaboration with prospective users



4. From Climate variables to Energy systems Calibrated Climate Variables Fremperature River Solar Solar Others?

Variability & Change on

Energy Variables

Country Scale

Historical

Define Models / Transfer Functions Select / Gather relevant Datasets

Energy Variables

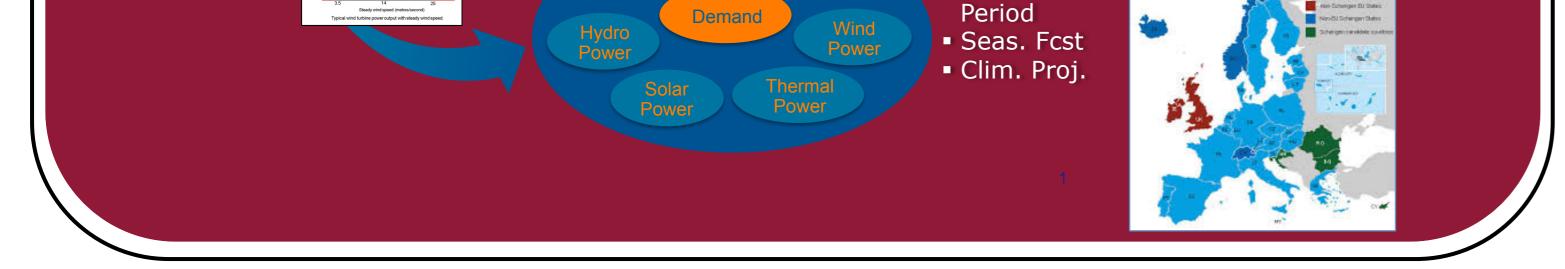
The purpose of the

5. The Demonstrator

The purpose of the ECEM demonstrator is to enable the energy industry and policymakers to assess how well different energy supply mixes in Europe will meet demand, over different time horizons (from seasonal to long-term decadal planning), focusing on the role climate has on the mixes.











If you would like to know more about the ECEM project or be involved please contact: Prof. Alberto Troccoli at <u>a.troccoli@uea.ac.uk</u> or visit <u>http://climate.copernicus.eu</u>





