European Climatic Energy Mixes (ECEM) Webinar

Climate Change

Explore how climate may affect future European energy demand and supply with the updated C3S ECEM Demonstrator

16 January 2018

Copernicus
Europe's eyes on Earth

Climate
Change Service
climate.copernicus.eu

European Climatic Energy Mixes (ECEM) is a Copernicus Climate Change Services Project (C3S) which is developing, in close collaboration with the energy sector, a demonstrator to assess how well **different energy supply mixes** in Europe will meet demand, over different time horizons, focusing on the role climate has on the mixes

#C3S_ENERGY

WEMC
World Energy & Meteorology Council

UEA University of East Anglia
EDF
University of Reading
Met Office
ARMINES
ENEA

ECMWF
European Commission

ECEM Overview

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Calibrated Climate Variables

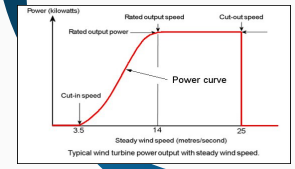
- Temperature
- Rainfall
- River Discharge
- Wind Speed
- Cloud Cover
- Solar Radiation
- Others ?

+Ancillary

• Skill & Reliability
• Assessment of Seasonal Forecasts of Energy Variables

+ Extreme Events Case Studies

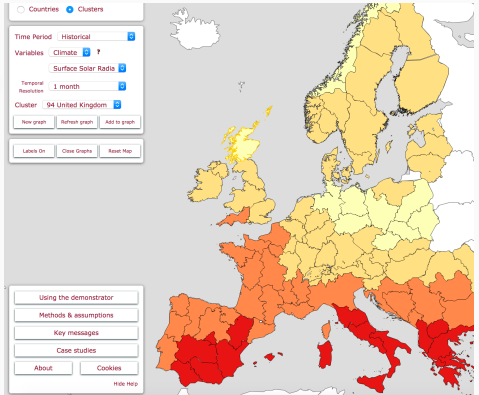
Define models & transfer functions
Select / Gather relevant datasets



Energy Variables

- Demand
- Hydro Power
- Wind Power
- Solar Power
- Thermal Power

- Sub-Country Scale
- Historical Period
- Seas. Fcst
- Clim. Proj.



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Agenda – 10:00-11:15 UTC

1. Demonstrator functionalities for the energy & climate sectors
   Ms Barbara Percy (Institute For Environmental Analytics, UK)

2. How the demonstrator data sets provide valuable and usable new information for the energy sector
   Dr Clare Goodess (University of East Anglia, UK)

3. New energy projections for the European domain
   Dr Laurent Dubus (EDF R&D, F)

4. Case study: Understanding changes in risk of cold, high demand winters using the ECEM projections
   Dr Emma Suckling (University of Reading, UK)

5. Question and answer session

Webinar Chair:
Prof. Alberto Troccoli

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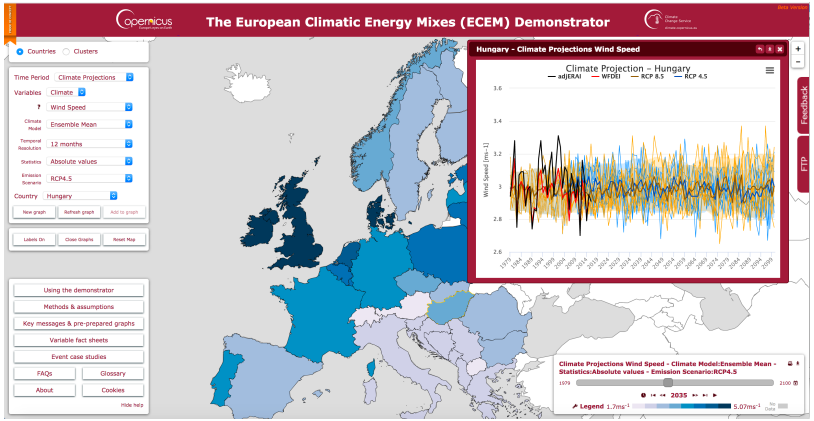
House Rules

- Three presentations followed by Q&A: please type your questions using the "Questions" tab in the control panel – we will read the questions out at the end
- The webinar is recorded and will be available online
- Enjoy the webinar!



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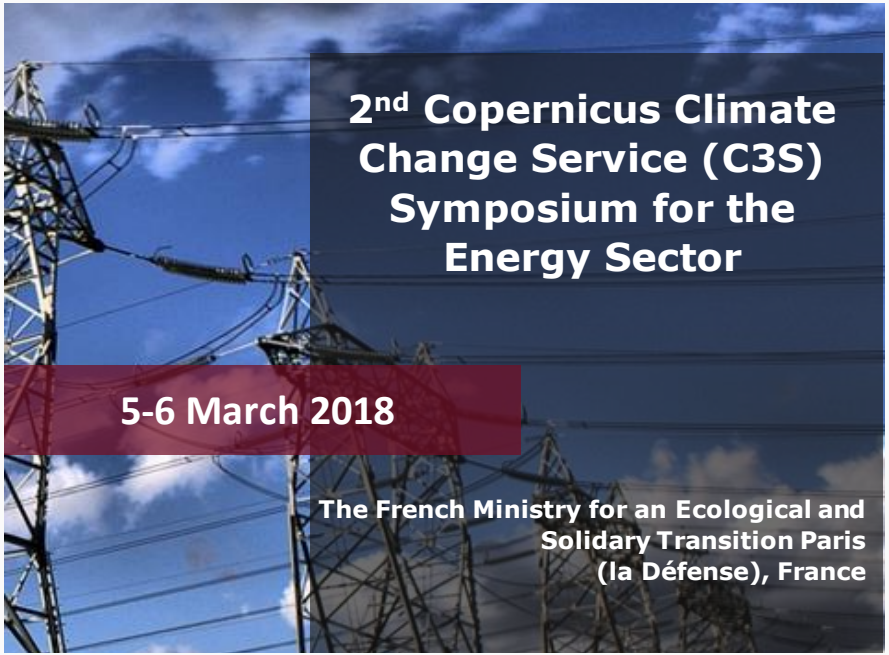
Your Questions

Demonstrator web site: http://ecem.climate.copernicus.eu/demo

1. What is the e-highways 2050? is it based on population weighting.
2. How did you work out capacity factors as there is a lot of uncertainty in this variable?
3. Please, I would like to know if there are a same platform or software for the projections in Africa?
4. Could you please say something more about cluster dimensions?
5. Are slides from previous webinars available?
6. Is it possible to receive data behind the graphs & figures
7. Will the projections and models be updated with more data when if becomes available (also: will the projections be updated with new meteorological data released by Copernicus satellites?)
8. [related to 4] Clusters include several regions, provinces, etc. It is possible to obtain data for individual regions, provinces, etc. ?

Upcoming events



http://bit.ly/2DhehnE

http://www.wemcouncil.org/

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ECMWF · European Commission

Thank you for your participation

Upcoming ECEM Webinar:

- Uses of ECEM Demonstrator, February 2018 (title/date TBA)

ECEM Demo – http://ecem.climate.copernicus.eu/demo

For more information, or to provide your feedback, please visit:

ECEM Project: http://ecem.climate.copernicus.eu

In collaboration with **World Energy & Meteorology Council (WEMC):**
http://www.wemcouncil.org

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