



# Next Generation Challenges in Energy-Climate Modelling

Online workshop 22<sup>nd</sup>-23<sup>rd</sup> June 2020

*Supported by the H2020 PRIMAVERA project*

*A 5-year €15M programme across 14 leading climate research institutions to  
develop a new generation of **advanced high-resolution global climate models***

*[www.primavera-h2020.eu](http://www.primavera-h2020.eu)*

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# Welcome to day 2!

## **Session 1 (Monday) – Use of historic climate data in energy system modelling**

- To what extent are the implications of “present-day” climate risk/uncertainty in energy systems well characterised by existing methodological approaches?
- How can historic climate data be better used to estimate climate risk/uncertainty in energy system modelling?

## **Session 2 (Tuesday) – Climate change and energy system modelling**

- To what extent does climate change affect our understanding of future risk/uncertainty in energy systems?
- What are the implications of using GCMs in the assessment of future energy-climate risk?

# Goals, scope and outputs



- **Goal is to identify**
  - state-of-art (what doing now),
  - present opportunities (what could be done better using existing tools and know-how),
  - future research needs (where do we need to go next)
- **Scope**
  - Focus on the scientific and technical challenges
  - Try to avoid detailed discussion of particular locations/technologies
  - Data access/availability is an important topic **but is NOT a priority here (other fora exist for this, e.g., OPENMOD)**
- **Outputs**
  - Networking and collaboration – joined up “energy-climate” research domain (**Workshop Booklet!**)
  - Intention to produce white paper or journal output(s)
- **Rules of engagement**
  - Please mute microphones and turn off video in plenary – raise hand or use chatbox if wish to ask a question
  - Please unmute microphones and turn on video in breakouts – or follow instructions from facilitator
  - Chatham house rules variant
  - Google docs / reporting

# Two messages



For climate scientists

- **Energy systems are more than just a set of inputs (or stress events) that can be directly calculated from weather.**

For energy scientists

- **Access to climate data is necessary but not sufficient to meaningfully address climate uncertainty.**

**Need stronger interaction between the two disciplines!**

# Programme

Day 1 (22<sup>nd</sup> of June):

	London	Denver	Sydney
12:50	ZOOM room opens for participants	05:50	21:50
13:00	Welcome & introduction	06:00	22:00
13:20	Historic session introduction	06:20	22:20
13:30	Historic session 3x 8min perspective talks	06:30	22:30
14:00	Thematic Breakout group discussion	07:00	23:00
14:45	Feedback of findings in main room	07:45	23:45
15:15	Break	08:15	00:15
15:45	Mixed Breakout group discussion	08:45	00:45
16:30	Feedback on findings and wrap-up	09:30	01:30
17:00	Closing	10:00	02:00

Day 2 (23<sup>rd</sup> of June):

	London	Denver	Sydney
12:50	ZOOM room opens for participants	05:50	21:50
13:00	Welcome & introduction	06:00	22:00
13:05	Future session introduction	06:20	22:20
13:15	Future session 3x 8min perspective talks	06:30	22:30
13:45	Thematic Breakout group discussion	07:00	23:00
14:30	Feedback of findings in main room	07:45	23:45
15:00	Break	08:15	00:15
15:30	Mixed Breakout group discussion	08:45	00:45
16:15	Feedback on findings and wrap-up	09:30	01:30
16:45	Concluding remarks	09:45	01:45
17:00	Closing	10:00	02:00

## Session convenors:

H. Bloomfield, M. Zeyringer, J. Browell

## Perspective talks:

- Jan Wohland (ETHZ, Switzerland)
- Matteo de Felice (JRC, EU)
- Keith Bell (Strathclyde, UK)

## Session convenors:

L. Stoop, M. Panteli, M. De Felice

## Perspective talks:

- Paula Gonzalez (Reading, UK)
- Bri-Mathias Hodge (UColorado, US)
- Sofia Simoes (LNEG, Portugal)

# Links and people



- Organising committee:
  - David Brayshaw (Univ Reading, chair)
  - Hannah Bloomfield (Univ Reading)
  - Jethro Browell (Univ Strathclyde)
  - Roger Dargaville (Univ Melbourne)
  - Matteo de Felice (JRC)
  - Paula Gonzalez (Univ Reading)
  - Katharina Gruber (BOKU)
  - Adriaan Hilbers (ICL)
  - Alex Kies (Univ Frankfurt)
  - Julie Lundquist (Univ Colorado)
  - Mathaios Panteli (Univ Manchester)
  - James Price (UCL)
  - Laurens Stoop (Utrecht University, TenneT, KNMI)
  - Hazel Thornton (UK Met Office)
  - Jan Wohland (ETH Zurich)
  - Marianne Zeyringer (Univ Oslo)
- PRIMAVERA project homepage: <https://www.primavera-h2020.eu>
- University of Reading Energy-Meteorology group: <https://research.reading.ac.uk/met-energy/>