**UCL** Energy Institute







UNIVERSITY OF



# wholeSEM Annual Conference 2017

# The Past, Present and Future of Energy Modelling

3<sup>rd</sup> – 4<sup>th</sup> July 2017 M by Montcalm, London

Professor Neil Strachan <u>n.strachan@ucl.ac.uk</u>







wholeSEM

#### Welcome to London's Tech City a.k.a. "Silicon Roundabout"



# **Conference themes**

(why energy modelling **was**, **is** and **will be** so important)

- The past, retrospective analysis (Day 1)
  - a look back at over a decade of energy decarbonisation modelling
- The present, current analysis (**Day 1**)
  - the implementation of the energy trilemma (decarbonisation, security, equity)
- The future, new approaches (Day 2)
  - developing and communicating the new insights needed by decision makers to achieve the energy systems transition challenge over the next decades





- All locations on this floor of M-by-Montcalm
  - Plenary and break-out sessions
  - lunches and evening drinks

- Twitter at @wholeSEM (hashtag #wholeSEM17)
- Meeting co-ordinators:
  - Pascale (our 3<sup>rd</sup> Centre Manager), and Maija
  - Assisted by Liz (our 1<sup>st</sup> Centre Manager), and Kim









#### What about Kate Rice?

Our 2<sup>nd</sup> centre manager and key organiser of this wholeSEM conference

#### Well, she is a little busy right now...!



### PhD poster sessions



- Rapid-fire "elevator pitches"
  - 2 minutes, plus 1 minute Q/A
  - Day 1: 1200-1230 and 1600-1630
- Posters available over all two days for a more leisurely read
- 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Prizes
  - Awarded by Jo Coleman, wholeSEM Advisory Board Chair
  - Day 2: 1430-1500





#### **Top-Dip Session** (1630 – 1730, Day 1)

- WholeSEM's Top Down Integration Project
- Researcher led and co-ordinated
  - Marianne Zeyringer (UCL)
  - And colleagues from UCL, ICL, Surrey and Cambridge
- Focused on hybrid energy modelling
  - Difficult to do in practice



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#### Modelling Cafes (0930 – 1130, Day 2)

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Group 1 (Roundabout Room)	Group 2 (Global Room)
What carbon price (how high and how long) is needed to mainstream new low carbon power generation, transport and heating technologies?	Who invests in strategic new energy infrastructures?
<u>Facilitator</u> : Florian Habermacher, Aurora Energy Research	Facilitator: Evelina Trutnevyte, ETH Zurich
Group 3 (Cloud Room)	Group 4 (Silicon Room)
How will residential consumers' change energy demand due to the introduction of new energy consuming technologies	How to keep options open for low carbon heating while ensuring zero emissions in the future?
Facilitator: Joe DeCarolis, NC State University	Facilitator: Katy Roelich, University of Leeds
Group 5 (Tech City Room)	Group 6 (Cyber Room)
How to approach specific industrial sectors with very few decarbonisation options?	How consistently will government energy policies be maintained for?
Facilitator: Chris Bataille, ISDIR	Facilitator: David McCollum, IIASA

## Our expectations of you!



- Remember that you are the crème-de-la crème of UK and international energy modelling
  - Learn from the presentations
  - Ask hard questions of the speakers
  - Contribute to discussions on the new directions for energy modelling
  - **Network** with your peers
  - (and eat and drink) !