

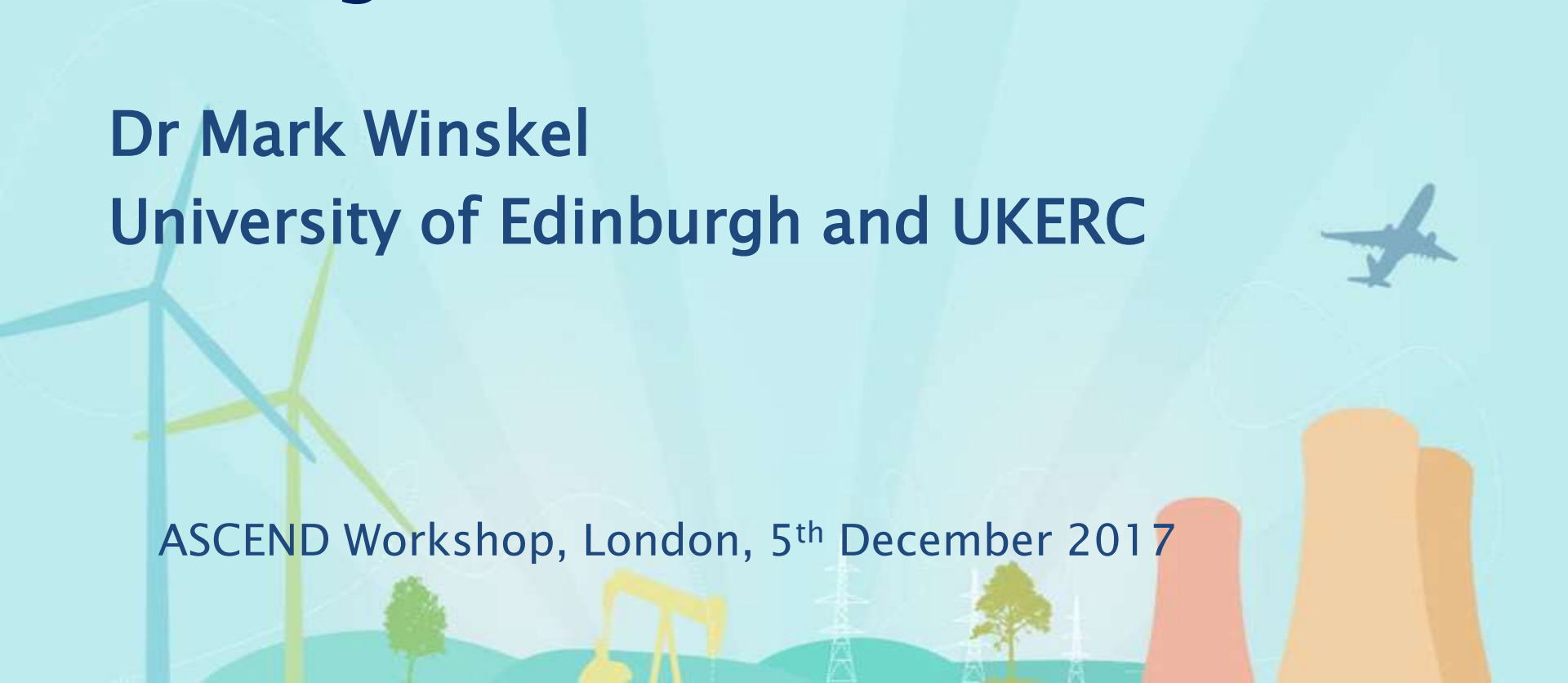


Across Scales in Energy Decision-making: a view from Scotland

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Scottish Energy Strategy

- Draft 'Energy Strategy' (to 2050)
 - Final version December 2017
- Draft 'Climate Change Plan' (to 2032)
 - Final version early 2018
- Plus, sectoral consultations on onshore wind, unconventional oil and gas, local heat, energy efficiency and district heating regulation



- *'Progress on electricity means that Scotland's energy challenges are different from most other countries, with heat and transport more significant'.*

Paul Wheelhouse MSP,
Minister for Business, Innovation and Energy

Scottish Energy Strategy:
The future of energy in Scotland



Scottish Government
Rèisealachd nan Ìomhairean
gov.scot

DRAFT CLIMATE CHANGE PLAN
The draft third report on policies
and proposals 2017-2032

January 2017



Scottish Government
Rèisealachd nan Ìomhairean
gov.scot

High Policy Ambition

- Energy Strategy: 50% of all energy consumed (equivalent) from renewables by 2030
- A new Scottish Climate Change Bill, proposing 90% GHG reduction by 2050
- First use of the 'Scottish TIMES' whole energy system model
 - CCPlan has a single pathway with sectoral carbon envelopes
 - But no published detailed modelling data and results, or analysis of uncertainties



Session 1: Model-Linking

'there does need to be links across scale ... [with] common assumptions in the different locations'

'What is the question the modelling is there to help us answer?'

'what is optimal for Scotland might not be optimal for [the] UK [and] EU'

'on the local level, social issues become more relevant than technical'

'TIMES is seen as magic black box, and magic bullet; [but] it's replete with weakness ... it misses whole swathes of cost, such as local level grid replacement'

'TIMES can't answer every policy question: for fuel poverty, [it] says nothing about who pays for what'

'a larger model makes it more difficult to understand the world'

'[there's] no point building something that will be too expensive to maintain'

'in the world of increased energy efficiency there is more uncertainty'

Session 2: National and Local

'[The] Scottish Government wants to be seen ambitious, but ... can [they] really ... come up with a new approach?'

'Scottish decision-makers [are] 'waiting' for UK [policy on heat]'

'There's not enough in the [Scottish energy] strategy on affordability'

'The fact that currently no one is responsible for heat regulation is an opportunity to re-discuss roles and rules'

'few [models] have gradual change; [we] need to account for abrupt changes and tipping points'

'consumers are not even aware that these conversations are taking place.'

'Hydrogen makes sense because there is no difference for the householder'

'Clearly much of the delivery has to sit with local authorities'

'Some decisions need to be local, but tools need to be national, to support consistency.'

'Big changes to the heat system are not necessarily suitable for local authority control'

'Heat decarbonisation needs centralisation'

Session 3: Pathways and Pilots

'How do you decide if a pilot has failed? ... Is carbon reduction more important, or social issues?'

'Evaluation and dissemination is not built in'

'The difficulty with a small scale pilot is the scalability issue'

'things [are] very dependent on geography; different places may use different kinds of gas, for example.'

'local pilots don't tend to get picked up by national modelling'

'[you] can't extrapolate [from] pilots to national levels'

'learning from demonstrators can be built into models - for example, hydrogen [trials]'

'you want to leave decisions as late as possible to avoid making a bad decision'

'The pace of technological change is a major barrier to upscaling pilot projects'

'keeping options open' means you may not know when to take a decision'

'Some decision points are well known - domestic energy efficiency fits with renovations'

'what government is thinking about what it wants to do ... might not be what business wants'

'Scottish Government fund a lot of pilot demonstrators ... Not all the projects are going to work'

Thank You

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