

TIMES and CGE Models – Moving towards best practice

Brian Ó Gallachóir

Proposal to IEA-ETSAP

International Energy Agency, Paris 17th-18th June 2013



Context

ETSAP contracting parties and others currently developing a number of methodologies to improve the linking of ***energy systems models to economic models*** to

- i) provide ***feedback*** to the economic drivers and
- ii) to determine the ***economic impacts*** of different energy scenarios.

This work is largely taking place within ***individual countries in isolation.***



Participants

China:	China National Renewable Energy Centre <i>Kaare Sandholt</i>
Denmark:	Technical University of Denmark <i>Kenneth Karlson,</i>
Ireland:	University College Cork <i>Brian Ó Gallachóir, James Glynn</i> Economic and Social Research Institute <i>John Curtis</i>
Italy:	E4SMA <i>Maurizio Gargiulo</i>
Norway:	Institute for Energy Technology <i>Kari Espegren</i> Norwegian University of Science and Technology <i>Per Ivar Helgesen</i>
Portugal:	Universidade Nova de Lisboa <i>Júlia Seixas, Patrícia Fortes</i>
South Africa:	University of Capetown <i>Alison Hughes, Bruno Merven.</i>
Sweden:	Chalmers <i>Erik Ahlgren,</i> Luleå University of Technology <i>Anna Krook-Riekkola</i> National Institute of Economic Research <i>Charlotte Berg</i>



Participants

China:	China National Renewable Energy Centre <i>Kaare Sandholt</i>
Denmark:	Technical University of Denmark <i>Kenneth Karlson,</i>
Ireland:	University College Cork <i>Brian Ó Gallachóir, James Glynn</i> Economic and Social Research Institute <i>John Curtis</i>
Italy:	E4SMA <i>Maurizio Gargiulo</i>
Norway:	Institute for Energy Technology <i>Kari Espegren</i> Norwegian University of Science and Technology <i>Per Ivar Helgesen</i>
Portugal:	Universidade Nova de Lisboa <i>Júlia Seixas, Patrícia Fortes</i>
South Africa:	University of Capetown <i>Alison Hughes, Bruno Merven.</i>
Sweden:	Chalmers <i>Erik Ahlgren,</i> Luleå University of Technology <i>Anna Krook-Riekkola</i> National Institute of Economic Research <i>Charlotte Berg</i>
United Kingdom	UCL Energy Research Centre <i>Neil Strachan, Paul Dodds</i>



Objectives & Deliverables

exchange views on methodology, experiences with linking,
compare results and
provide guidance on best practice for other countries

This proposal comprises

- i) a **workshop** in Cork on linking TIMES models with CGE models
- ii) a **best practice guide** on linking TIMES models with CGE models

Deliverables:

- i) Workshop proceedings,
- ii) Best practice guide on linking TIMES models with CGE models.



Relevance to the Annex XII topics:

Proposal directly related to the Annex XII WP research topic

The research will aim to associate CGE properties to MARKAL-TIMES models, either with the extension of the tools or the association to an existing economy wide model, in order to assess the full economic implications (in particular jobs and GDP) of an energy revolution

also contributes directly to the WP goal of capacity building

Best practice examples, manuals, online forum and hands-on training opportunities will be offered with the aim of maintaining/improving international/national capabilities for conducting energy systems analyses and the effective use of ETSAP tools.



Timing and Costs

TIME Schedule: July 2013 – June 2014

- i) Workshop in Cork in September / October (i.e. proceedings available prior to next ETSAP meeting).
- ii) Best practice Guide completed prior to summer 2014 ETSAP meeting

Costs: Total €70,000

- €35,000 for workshop expenses ;
- €35,000 for Best Practice Guide)



Benefits to ETSAP

- **Collaboration** of at least 9 national teams on a key area of importance for the current work programme.
- Improved **understanding** on how to link ETSAP tools with CGE models.
- Workshop **proceedings** available on the ETSAP website.
- Best practice **guide** available on the ETSAP website.
- **Additional** ETSAP teams engaged in this linking activity.

