

# Irish TIMES MACRO Proposal to IEA ETSAP

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## Irish TIMES MACRO

**Proposal Submitted by:** Brian Ó Gallachóir, UCC, Ireland

**Participating partners:**

Maurizio Gargiulo, E4SMA S.r.l., Italy,  
Socrates Kypreos, Switzerland.

1. build a MACRO module for Irish-TIMES;
2. run Irish TIMES and Irish TIMES-MACRO subject to 80% emissions reduction scenario by 2050;
3. compare results and report findings



## Motivation

- can we improve the integration of energy systems modelling with macro-economic modeling?
- how do we provide feedback between energy system and economy?
- test how a MACRO module perform with a national TIMES model (we have experience with national and regional MARKAL models but not TIMES models).
- provide other TIMES users build a TIMES-MACRO module (step by step)
- enable training in TIMES-MACRO



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## Irish TIMES MACRO

### Project Description:

Phase 1 build and test Irish TIMES MACRO (today's proposal)

Phase 2 hard link Irish-TIMES MACRO to MERGE i.e. act as a new case study for the approach developed by Antti Letila and Socrates Kypreos.

Phase 2 is subject to the success of Phase 1 and will form the basis for a follow-up proposal to IEA-ETSAP.



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## Irish TIMES MACRO

**Time schedule:** July - December 2012

**Estimated Costs:** €13,500 (~ 30% of overall costs)

**Deliverables:**

1. Presentation of results to the 2012 Fall IEA-ETSAP Workshop.
2. Report to IEA-ETSAP with description of all the steps and data required to extend Irish TIMES Irish TIMES-MACRO, and a results comparison between standard and macro model.
3. 'Show me' presentation for training.



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## Irish TIMES MACRO

**Relevance to the Annex XII topics:**

- ✓ *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.*



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