INFORMATION REQUESTED CONCERNING

the PRIMES MODEL:

based on submissions from

members of the NIAM network

Collated by Helen ApSimon

Review of models in EC4MACS project including PRIMES : meeting at IIASA 5 October 2009

STRENGTHS:
Sophisticated state of the art model for energy projections treating each country in the EC 27 on the same basis -> CONSISTENCY

CONCERNS:
transparency of a complicated model assumptions and data used disemination of results

    → NIAM for consultation within countries re priorities for better information

Existing consultation: DG TREN list of energy experts in each EC country. *NB a different perspective and generally not in contact with environmental experts.*
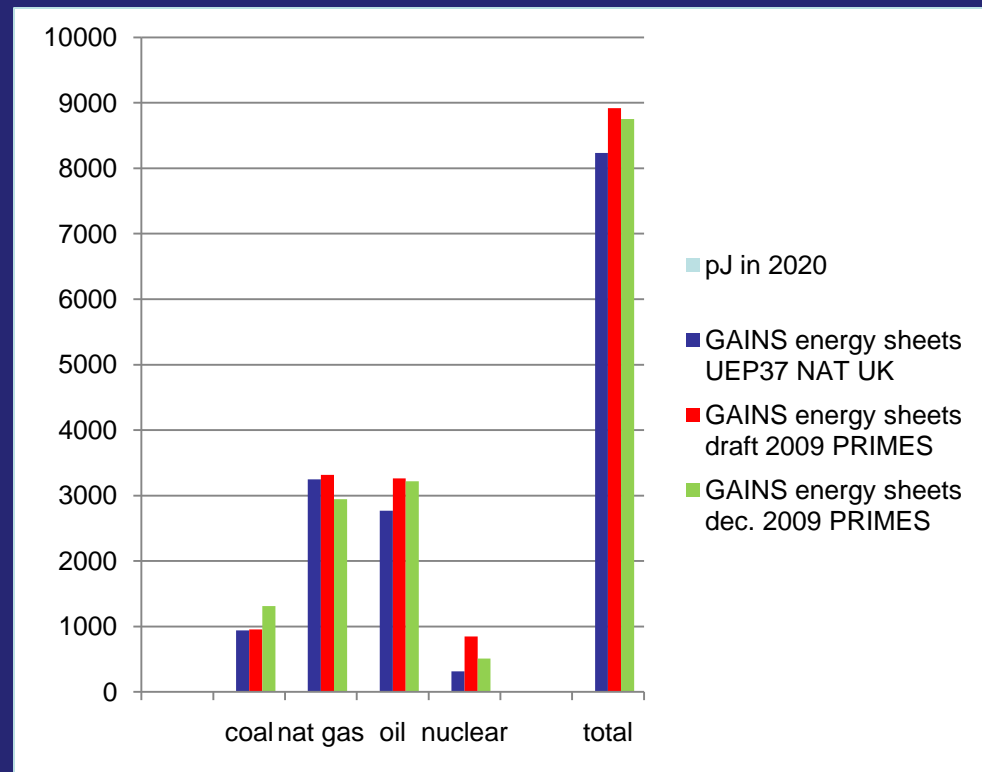*Asked NIAM members to contact national experts -> comments from both.*

Single page summary "energy balance & indicators" each country

Rather general model description available

Power Point presentation on model run (e.g. as circulated by Rob Maas re PRIMES Dec 2009 runs)

Eventually a "book" on the finalised results including national summary tables

NIAM comments re data used & output provided

PRIMES team required to use EUROSTAT-> differences from national data (sometimes modified if notified by national energy expert)
Problems with some country specific sources(e.g. black liqour Finland)

Summary a quick overview: Need more detailed breakdown of results e.g. Electricity generation, differentiating biofuels, breakdown of fuel use by sector (more like GAINS national summary), ETS v non ETS etc

Other general underlying data e.g. heat/moisture/S content of fuels, production efficiencies, CHP etc.
Overall more detailed data needed to understand differences from national projections (and consistency with GAINS too ?) *examples Italy etc....*

Explanations hypotheses made for each country, macroeconomic aassumptions etc

Reference web-site suggested along the lines of GAINS

Improving transparency

General model description but not specific enough

Clear explanation of optimisation process and constraints, submodels - using elasticities of response; new technologies e.g. CCS etc etc

NB latest PRIMES 2009 updated modelling of road transport ; but very scant details

Improved consultation and communication NB some countries sometimes included in PRIMES but not in EC27 e.g. Norway

Verification and uncertainty analysis

Response from Prof Capros + general model description:

PRIMES output 133Mbytes + GEM-E3 (macroeconomic/sectoral activity projections)+ Prometheus model world energy/prices + transport activity model (was SCENES, now being replaced) + biomass supply model.

DG-TREN handles diffusion of information and results, and consultation procedure- > description of process

PRIMES model and database protected under commercial copyright. Limits on ummary data to 3rd persons: no contractual obligation nor any financing to make data "public".

Methodological issues require large efforts to respond in detail: peer review "one of most sophisticated and comprehensive energy models worldwide"

Any future questions/comments must be via national energy experts for DG-TREN – see list

- need to establish communication links within countries ; important to understand PRIMES Dec 2009, and comments to help with future updates

Problem: how about countries outside EC 27, and/or other TFIAM participants????

?? Can communication between countries help?

?? Can IIASA help. e.g. interpretation of PRIMES re more detail on fuel used by sector etc.