The EFDA-TIMES global model: multi-tasking improvement procedures

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Content

1. The EFDA-TIMES forum
2. Model results: quantities
3. Model results: prices
4. Debugging together: procedures

1 – The EFDA-TIMES forum (1/2)

Welcome:	https://www.efda.org/timesforum/index.php
	How to register
	Introduction and guidelines
Modelling:	General Modelling Questions
	TIMES
EFDA model:	General
	Documentation
	Question & answers
	VEDA Front End & Back End
	EFDA model: old posts

1 – The EFDA-TIMES forum (2/2)

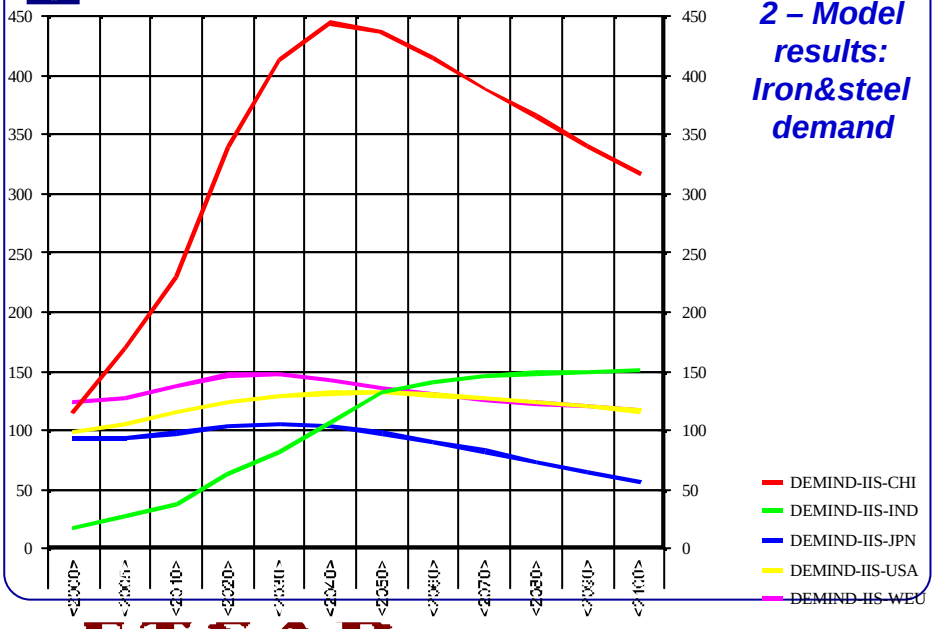
EFDA model: (continuation)

- Master templates
- Old templates
- Main responsibilities & workflows
- Model manager
- Model database

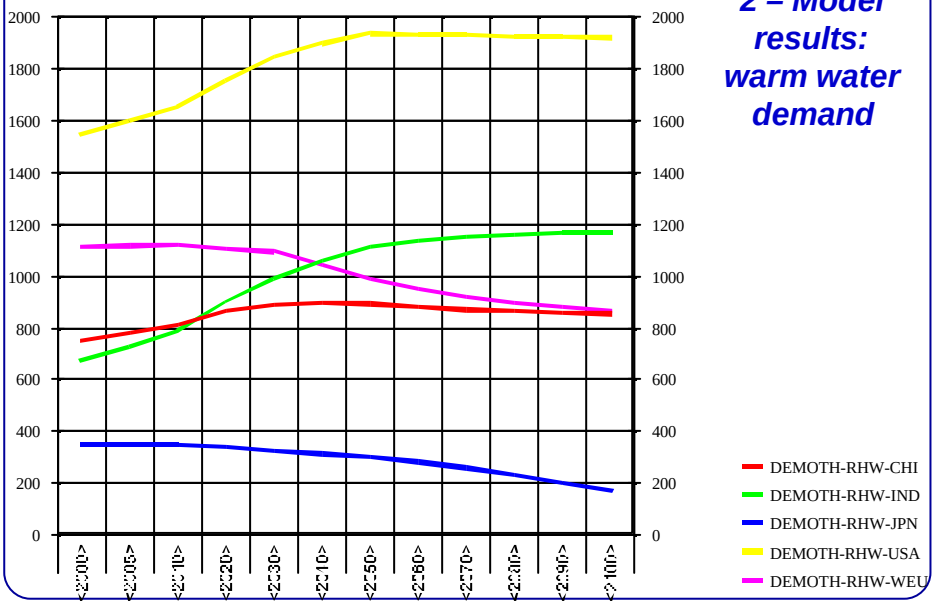
Organizational:

- News
- Meetings
- The forum-forum

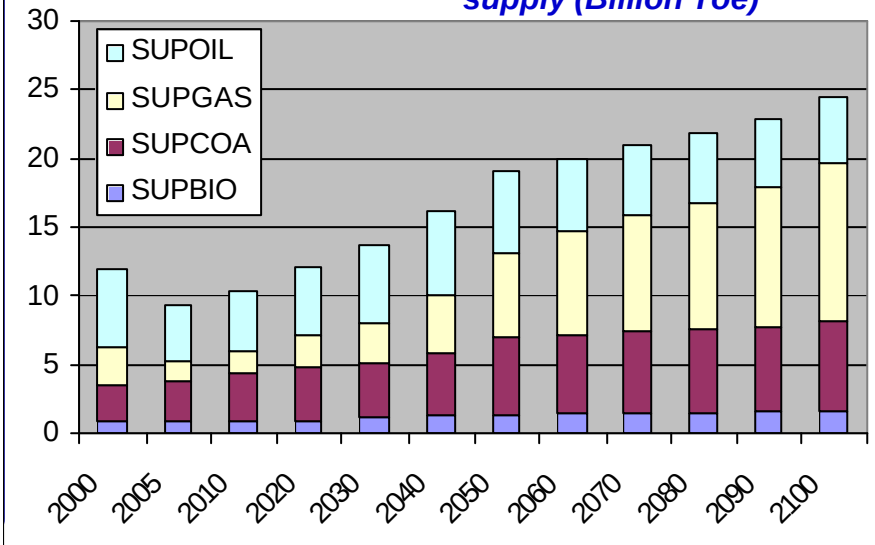
2 – Model results: Iron&steel demand



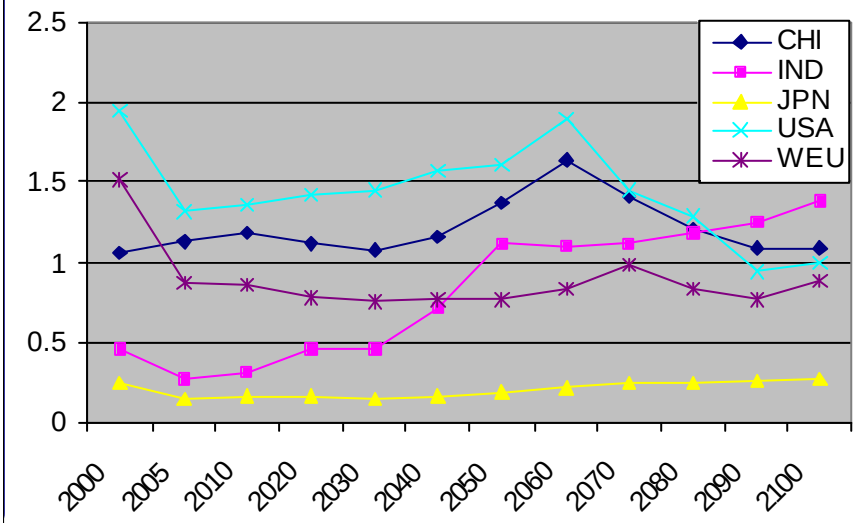
2 – Model results: warm water demand



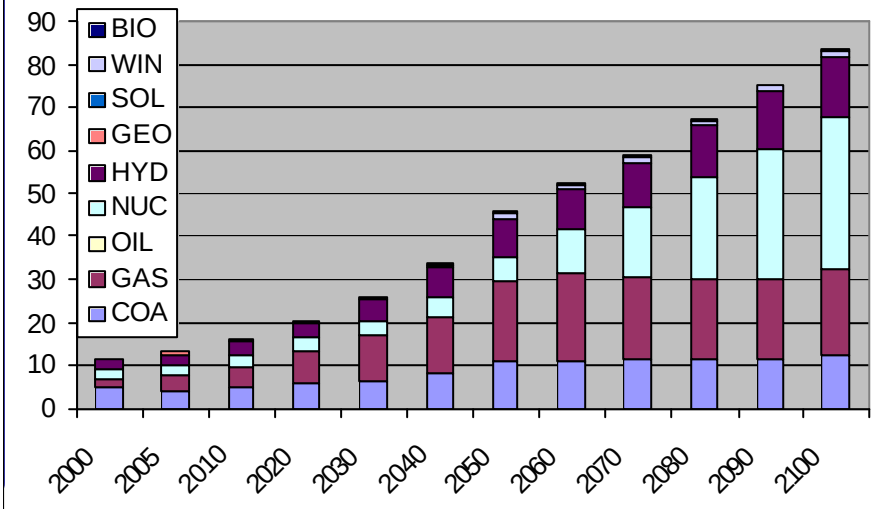
2 – Model results: Global primary energy supply (Billion Toe)



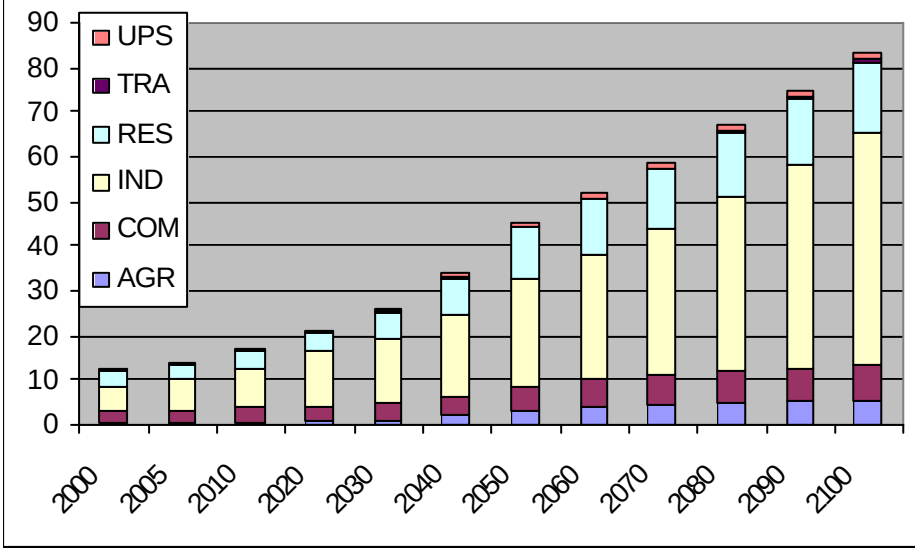
2 – Model results: TPES by country (in Btoe)



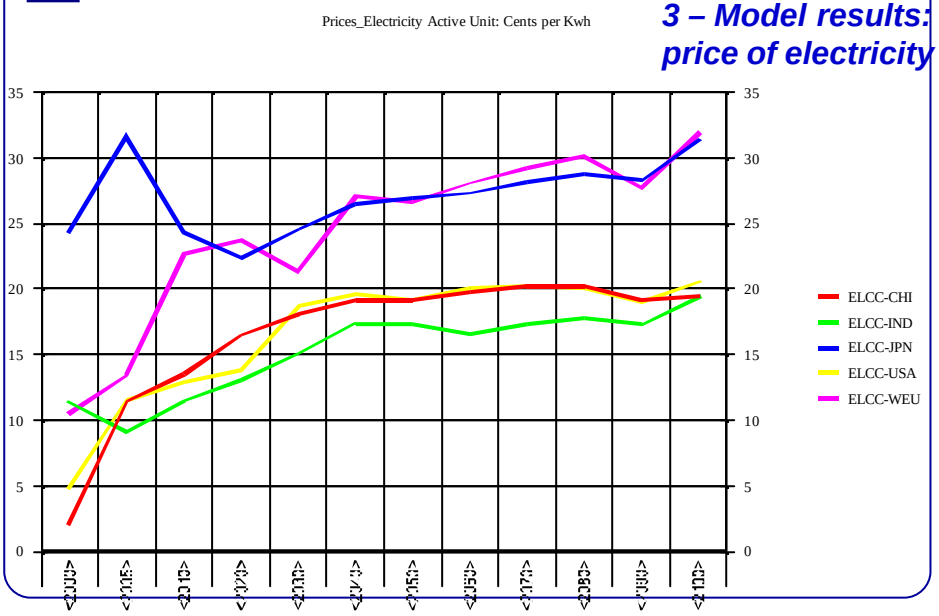
2 – Model results: Electricity supply (in EWh)



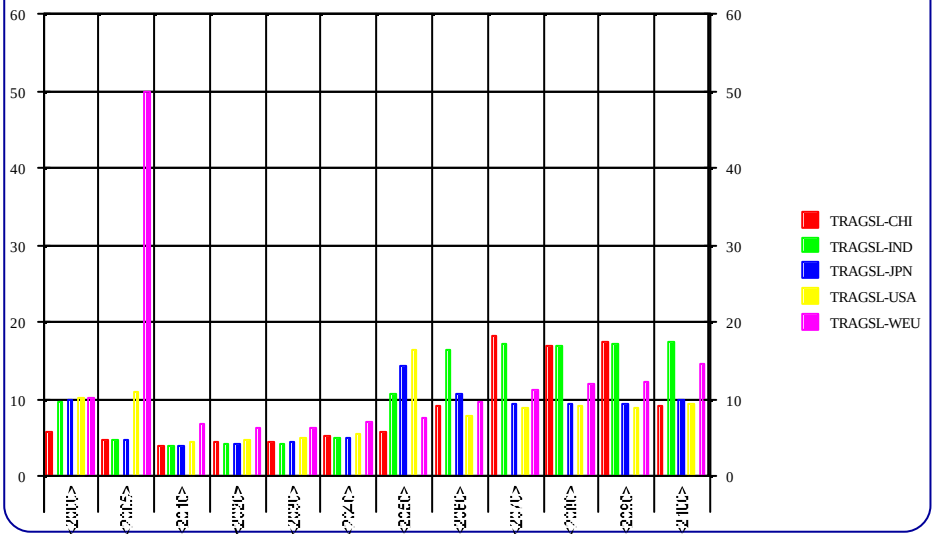
2 – Model results: Electricity use (in EWh)



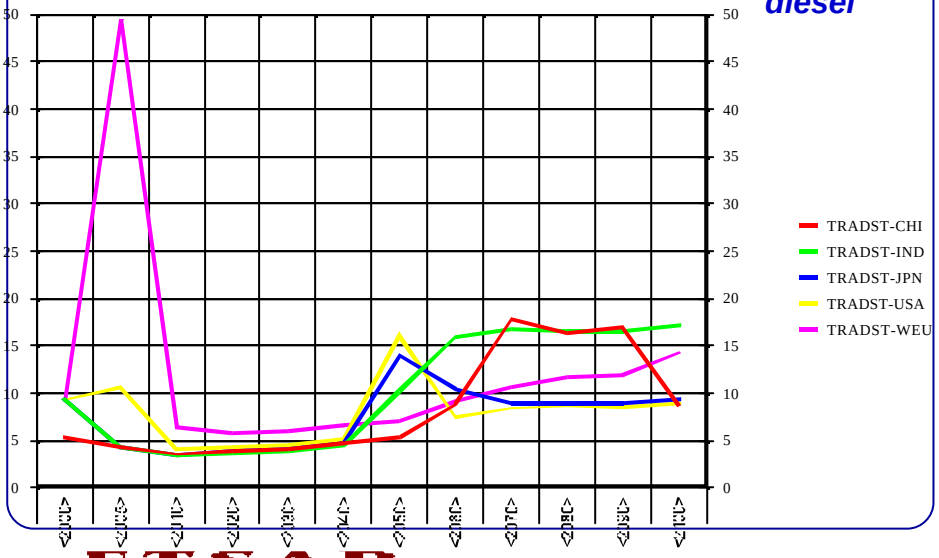
3 – Model results: price of electricity



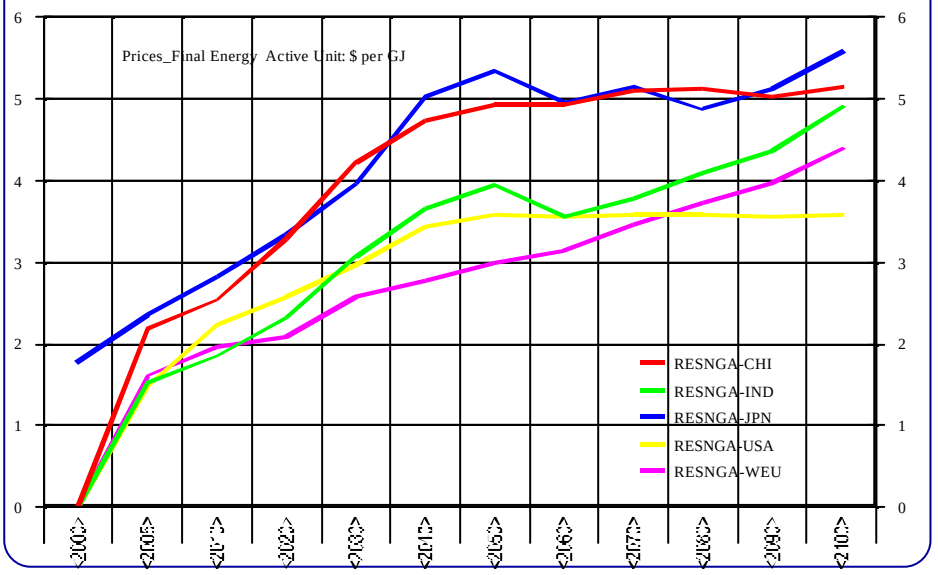
3 – Model results: price of gasoline



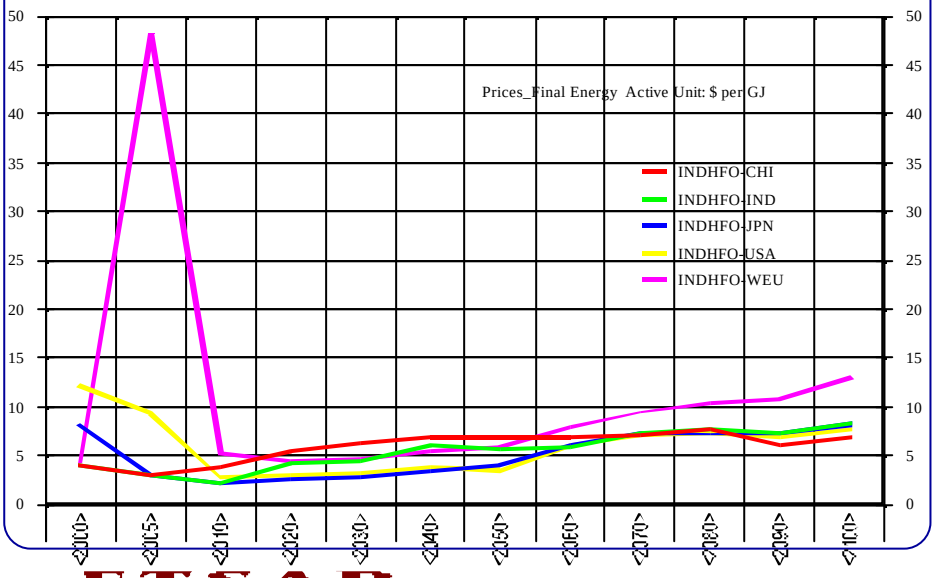
3 – Model results: price of diesel



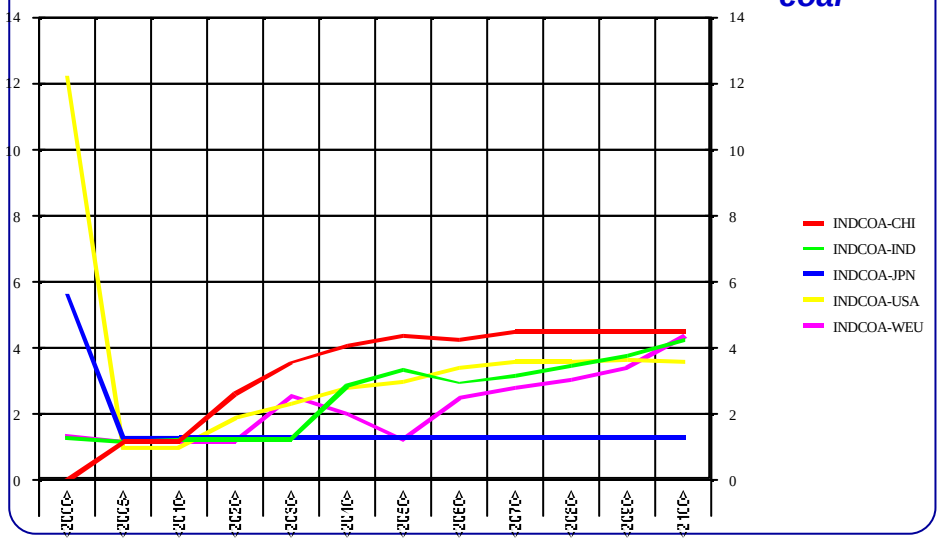
3 – Model results: price of nat.gas



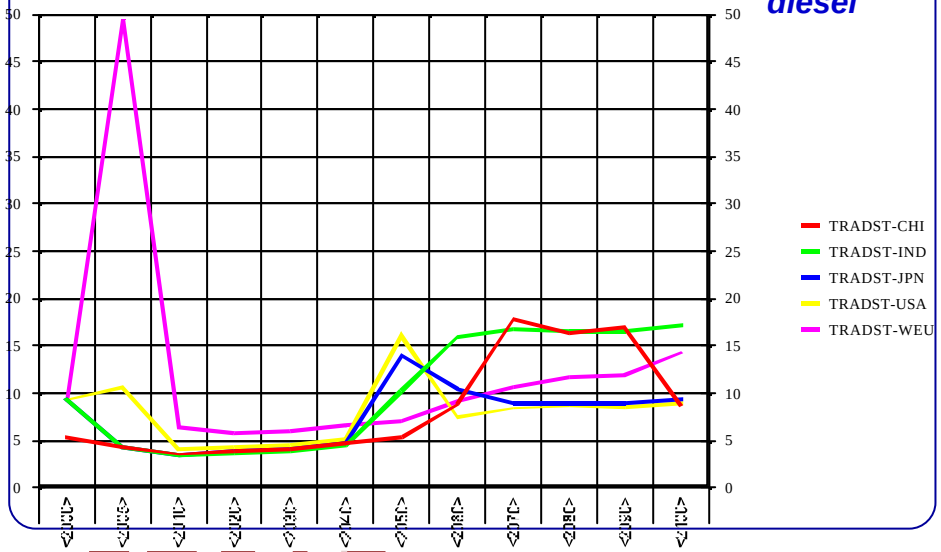
3 – Model results: price of heavy fuel



3 – Model results: price of coal



3 – Model results: price of diesel



4 – Improving the model together: the problem

With such a huge model it is an advantage to have different groups contributing to the improvement of the same tool.

Since it is not yet possible to run a centralized database in the same centralized computer through web interfaces, how to combine a decentralized improvement, for instance of

EFDA	in Upstream,
VTT	in Industry
IPP	in Electricity, Residential, Transport
ENEA	in Trade, Demands and Drivers
CIEMAT	in Residential, Transport
UKAEA	in Electricity and Industry

and the need to maintain the same model?

4 – Improving the model together: goals

The procedure should at least enable the group to:

- speed up the understanding of the model;
- facilitate the release of new master versions converging to a version whose baseline behaves in a reasonable way;
- keep track of the changes & maintain some kind of versions history.

EFDA makes available the forum and the ftp-server. Each group has its working copy of the templates and a file with the log of the changes. EFDA maintains

- the master templates (/timesforum/viewtopic.php?t=71),
- working copy of the templates and the change log (?t=78),
- software bugs log (at ftp://times:modeldata@ftp.iter.org/EFDA-Model/VEDA-Bugs.xls)

4 – Improving the model together: procedure

Each group should:

1. run the model from the master templates and study the results focusing on the area of responsibility;
2. Propose explanations of odd results in connection with the input data and discuss them in the appropriate sections of the forum;
3. change its version of the model and run it till results are satisfactory
4. suggest to include the changes in the common version, making an entry in the corresponding change-log file on the ftp-server
5. EFDA includes the changes and bug-fixes into a working copy of the templates on the ftp-server;
6. after further validation, the working copy with the changes is frozen and called a new revision