

ETSAP - ENERGY TECHNOLOGY SYSTEMS ANALYSIS PROGRAMME
 Implementing Agreement of the INTERNATIONAL ENERGY AGENCY – IEA/AIE

DRAFT MINUTES OF THE 53rd EXECUTIVE COMMITTEE MEETING
Held on Thursday, July 3 (16.00 – 19.00), 2008, at the
Main Conference Room, IEA Headquarters, , 9 rue de la Fédération, Paris

PARTICIPANTS

N.	Country	Contracting Party	Delegate	Atten- -ding	Ab- -sent	Stand-in
1	Belgium	FPP Science Policy	Mrs. Anne FIERENS	X		
2	Canada	NRCan	Mr. Hertsel LABIB	X		
3	EC	DGRTD	Mr. Mathieu GRISEL		X	
4	Finland	VTT/TEKES	Mrs. Pia SALOKOSKI			Mr. Antti Lehtilä
5	France	ADEME/ EDMP/ DGEMPEAD	Mr. Xavier LEFORT Mr. Pierre-Franck CHEVET Mr. Benoit LEGAIT			Mrs. Nadia Maïzi
6	Germany	IER	Mr. Alfred VOSS	X		
7	Greece	CRES	Mr. George GIANNAKIDIS		X	
8	Italy	CNR/IMAA	Mr. Vincenzo CUOMO			Mrs. Carmelina Cosmi
9	Japan	Government			X	
10	Korea	KEMCO	Mr. Jong-Whan NOH			Mrs. Jin Young Park
11	Netherlands	ECN	Mr. Harm JEENINGA	X		
12	Norway	IFE	Mr. Audun FIDJE	X		
13	Sweden	STEM	Mr. Klaus HAMMES	X		
14	Switzerland	PSI	Mr. Hal TURTON	X		
15	UK	DTI	Mr. Stephen Pye	X		
16	US	DOE	Mr. Carmen DI FIGLIO	X		

For the IEA: Mr. Dolf Gielen Office of Energy Technology and R&D
 Mrs. Andrea Nour, Office of the Legal Council
 Mrs. Anne Lechartier, Office of the Legal Council

For ETSAP: Mr. GianCarlo Tosato, Operating Agent
 Gary Goldstein, Primary System Coordinator

Guests: Mr. Markus Blesl IER, Uni-Stuttgart, Germany
 Mr. João Cleto Uni-Lisbon, Portugal
 Mrs. Patricia Fortes Uni-Lisbon, Portugal
 Mr. Poul Erik Gronheit, Risø National Laboratory, Denmark
 Mr. Bob Hanna Dept. Communications, Energy & Nat. Resources, Dublin, Ireland
 Mr. Socrates Kypreos Paul Scherrer Institute, Switzerland
 Mrs. Maryse Labriet CIEMAT, Spain
 Mr. Richard Loulou KANLO, France – Canada
 Mr. Howley Martin Sustainable Energy Ireland, Cork
 Mr. Brian O’Gallachoir Sustainable Energy Ireland, Cork
 Mrs. Sofia Simões Uni-Lisbon, Portugal
 Mrs. Denise Van Regemorter, Uni-Leuven, Belgium

Opening

Mr. Hertsel Labib, chairman of ETSAP, opened the meeting at 16.00.

Mr. Labib welcomed everybody. He also thanked the IEA for making appropriate facilities available and hospitality. He welcomed Mrs. Nadia Maïzi, who represents France that for the first time joined ETSAP in January 2008 and Audun Fidje, delegate of Norway. He also announced that three Contracting Parties have appointed new delegates: Mr Martin HUEMER by the European Commission, Mr. Harm Jeeninga by ECN, Mr. Hal Turton by PSI.

1. Quorum Count

Presently ETSAP has 16 Contracting Parties, requiring 9 to be represented for a Quorum. With 9 Contracting Parties represented by the delegates and 4 Stand-Ins a Quorum is present.

2. Agenda

The Agenda was adopted, as follows:

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1. Quorum Count
 2. Adoption of the agenda
 3. Results of the written procedure (Attachments O1)
 4. IEA/ETSAP Implementing Agreement
 - 4.1 - *Communication from the Secretariat*
 - 4.2 - *5 year extension (Attachments O2, O3, O4)*
 - 4.3 - *communication from the Operating Agent*
 - 4.4 - *Invitation to join*
 5. Annex X (2005-2008): Global Energy Systems and Common Analyses
 - 5.1 - *Draft final report (ToC in Attachment O2; full report posted at: www.etsap.org)*
 - 5.2 - *Draft statement of income and expenditures (Attachment O5)*
 6. Annex XI: Joint studies for new and mitigated energy systems
 - 6.1 - *Participation*
 - 6.2 - *Draft Program of Work (Attachment O6)*
 - 6.3 - *Draft budget for 2008 (Attachment O7)*
 7. Other business
 - 7.1 - *Election of the chairperson*
 - 7.2 - *Report of the Workshop*
 - 7.3 - *Next ETSAP Workshops*

Attachments:

- O1 Minutes of the previous Executive Committee, held in Brasilia, Thursday, Nov 23, 2007
- O2rev Annex X draft final report: Table of Content, summary (the full draft is downloadable from <http://www.etsap.org/official.asp>)
- O3 Criteria Table: draft evaluation for ETSAP
- O4 Strategic Plan
- O5 Annex X: Draft statement of income and expenditures
- O6rev Annex XI: Draft Program of Work
- O7rev Annex XI: Draft budget for 2008
- O8new Annex XI: Letter of Agreement for distributing the MARKAL-TIMES model generators
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3. Results of the written procedure (Attachments 01)

The Executive Committee meeting held in Brasilia on November 22, 2007, approved a slightly amended text of Annex XI: Joint Studies for New and Mitigated Energy Systems (2008-2010). In order to start the Annex by January 1, 2008, the approval of the text was expedited by using the written procedure. The Operating Agent launched the written procedure on December 7, 2007. Four delegates approved (UK, Canada, Belgium, Germany), nobody objected. The minutes were approved as attached.

4. IEA/ETSAP Implementing Agreement

4.1 - Communication from the Secretariat

The IEA desk officer for ETSAP, Mr. Peter Taylor, who was in mission in Japan, apologised for not attending. Mr. Dolf Gielen represented him.

He illustrated the small reorganization that will soon enter into force at the IEA secretariat. Mr. Neil Hirst is the director of the new Office of the Global Dialogue (previously Non Member Countries); the Committee of Energy Research and Technology will report to it; the Energy Technology Cooperation Division is now included in this Office. The Energy Technology Policy Division and the Energy Efficiency and Climate Change Division will move to a new office to be headed by Mr. Pieter Boot. The head of the Energy Technology Policy Division, Mr. Bob Dixon, will come back in August. The structure of the committees and working groups does not change, so ETSAP will continue to respond to the End Use Working Party and to the Committee of Energy Research and Technology.

The IEA just issued the Energy Technology Perspectives 2008 report, with Scenarios and Strategies to 2050 in support of the G8 Plan of Action. The study raised quite a lot of attention. Mr. Gielen thanked ETSAP for the support to the publication. Worried about the impact of detailed results on the post Kyoto negotiating positions, the IEA decided not to include the country analyses in the main report. But since it receives almost daily requests on national implications of the ETP scenarios, it is important that ETSAP makes the country analyses available as a separate report, under its responsibility. The Operating Agent, with the groups that carried out country analyses with the ETP assumptions, will finalise the report and post it to the ETSAP web site. Afterwards the synthesis could become a scientific paper.

About the future developments, the roadmaps will be further elaborated and will be the main pillar of the work at their division. Also sector analysis publications were planned for the next year. About the issue of ETP2010, it will include a summary of the road maps and in depth analyses of key countries such as China and India. An update of the ETP model is under evaluation; it should include recalibration to 2005, re-aggregation of the EU member states in a new region, update of the base software, etc. The Operating Agent ensured ETSAP close cooperation on the technical issues.

4.2 - 5 year extension

The IEA secretariat reminded that the validity of IEA Implementing Agreements is 5 years. The ETSAP IA expires on June 30, 2009. The documents required for the Request for Extension include:

- End-of-term report (accomplishments in past period)
- Criteria table (how well ETSAP thinks they did)
- Strategy plan (what they plan to do in the next five years)

The process is as follows:

1. ETSAP discusses, drafts and finalises the documents
2. The documents are submitted to the End-Use Working Party and a presentation is made by the ExCo chair (send to IEA Secretariat 2 weeks before meeting date)

3. The EUWP makes a recommendation at that meeting
4. The same documents + the EUWP recommendation are submitted to the CERT and a presentation is made by the ExCo (send to the IEA 2 weeks before the meeting date)
5. The IEA Secretariat notifies the ExCo of the CERT decision

Before ETSAP's end of term 30 June 2009 the EEUW meets on 16-17 October 2008 and the 3rd week of April 2009, the CERT meets on 23-24 February 2009 and 9-10 June 2009.

The Operating Agent plans to compile the End-of-term report by summarising the Annex X draft final report, and the Strategy plan by improving the PoW and send the three requested documents at the beginning of August to Mrs. Carrie Pottinger, the IEA officer in charge of this issue, well in time for the presentation to the October EUWP and the February 2009 CERT meeting.

The Executive Committee of the Implementing Agreement for a Programme of Energy Technology Systems Analysis has unanimously requested an extension of the next five years from 1 July 2009 to 30 June 2014, approved the process presented by the Operating Agent and endorsed the three draft documents.

4.3 - Communication from the Operating Agent

The OA was hired by IRG (Gary Goldstein) as a consultant to the SEE-REDP project; this work was remunerated with USD 16585 in 2007 and USD 13910 in 2008. The consultancy agreement expired and there are no plans for continuation. Mr. Gary Goldstein confirmed that the statement is accurate. He thanked Mr. Tosato and Mrs. Denise Van Regemorter for their contributions to the success of the project.

4.4 - Invitation to join

The Office of the Legal Council updated the ExCo on the number of participants to ETSAP.

Australia

Although the Operating Agent and IEA colleagues were in contact in late 2005 regarding the possibility of Australia identifying a new CP, since the IEA secretariat does not have a new acceptance letter on file, nor does it have any record of Australia having signed a new signature page, ABARE's withdrawal letter of 2004 still stands and Australia cannot be counted as a CP.

Denmark

The minutes of the ExCo meeting on 8 July 2005 in Kyoto state: "Since no response has been received, it has been assumed that these countries [which include Denmark] have withdrawn from ETSAP. The Executive Committee endorsed this position. After this decision, the ETSAP IA counts 17 Contracting Parties[.] The Secretariat therefore considers Denmark as withdrawn as of 8 July 2005.

Japan

Japan does not need to change its Contracting Party. The CP for Japan is the Government of Japan. So whether it is METI or another ministry, the CP will remain the same. However, Japan will need to change its ExCo representative. I attach a model letter for that purpose.

Norway:

In the minutes of the last ExCo meeting in Brasilia on 22 November 2007, it was stated: "Since Norway has never withdrawn formally from the Implementing Agreement, it can 'reactivate' its membership without having to complete all of the steps for joining the Implementing Agreement."

The Executive Committee of ETSAP by voting unanimously invites Australia, Austria, Denmark, Indonesia, Ireland, Kazakhstan, Portugal and Spain to join.

Mr. Gary Goldstein asked how new non OECD contracting parties that may join ETSAP will contribute. The Office of the Legal Council reminded that the IEA Framework of 2003 does not require that all Contracting Parties pay the same IA membership fees. The Framework only requires that participation be "equitable", in

other words "fair". While in many cases, IAs do require that all CPs pay the same fees, others have at times calculated membership fees on, for example, GDP, PPP or the World Bank country classifications (i.e.; if a country falls into the low-income or middle-income category, it pays less in fees). There is also the possibility of non-financial contributions if that is what the IA would want (technical, in-kind contributions).

The chair suggested continuing the discussion on this point at next ExCo meeting.

5. *Annex X (2005-2008): Global Energy Systems and Common Analyses*

5.1 - Draft final report

The Operating Agent presented the Table of Contents of the Annex X draft final report, which was sent with the agenda. The full report (15 Mb) is posted at <http://www.etsap.org/official.asp>. The report requested to the editors, Mr. Gary Goldstein and Mr. GianCarlo Tosato, a lot of work. The result is something special with more than fifty contributions of ETSAP tools users. It could help delegates and experts in supporting their proposals and work. The editors thanked the contributors. The delegates appreciated the achievement.

The Operating Agent plans to complete the contribution on ETP and to revise highlight and summary before the end of July. Delegates and experts who want to revise their contributions are requested to send their comments in a couple of weeks.

The Operating Agent proposes to send 20 printed copies of the full report to each delegate. A discussion followed about the most efficient way of diffusing the report. It emerged the preference by some delegates to print only a few copies of the full report and to print more copies of the summary, where the full report would be annexed as a CD. Some delegates still prefer to receive a considerable number of printed copies. It is decided that the Operating Agent will ask to the delegates to specify the number of printed copies of the summary and of the full report they need.

5.2 - Draft statement of income and expenditures (Attachment O5)

The Operating Agent illustrated the draft statement, which did not change from the version approved in Brasilia. The only open expenditure is related to printing the Annex X final report. The contracts to VTT and Uni-Cape Town have to be concluded before paying. The delegates approved.

6. *Annex XI: Joint studies for new and mitigated energy systems*

6.1 - Participation

After France joined ETSAP, and Norway and the Netherlands resumed full participation, 16 countries participate to Annex XI. Further contacts are necessary with MITI in order to define the new delegate(s) and experts of Japan. Greece and Italy may have problems to pay their participation fee in 2008. Switzerland has expressed interest to participate offering as a fee in kind contributions (see below). Denmark and Ireland expressed their intention to complete soon the administrative steps that are necessary to join. The modelling teams working in Austria, Kazakhstan, Portugal and Spain are giving their active support to contact their ministries and ensure participation.

The countries invited to join ETSAP at the Brasilia ExCo are making little progress. According to Mr. Gilberto Hollauer, Adviser of the Brazilian Minister for Energy and Mines, "after discussion with several institutions interested, we realized, unfortunately, on one hand there is no human resources available yet in Brazil for taking part of this outstanding group properly. On the other hand, we expect to be in better

position to accept future cooperation, after some initiatives presently on going.” Prof. Tanay S. Uyar, Uni-Marmara, Istanbul, discussed the possibilities of Turkish participation with the state secretary; they are considering participation. According to the IEA group in charge of the NEET project, the Chinese Ministry of Science and Research and the South African Agency for Research (SANERI) are considering the participation to some agreements, including ETSAP. There will be new opportunities to discuss the participation of Russia at the forthcoming joint Russia-IEA/NEET workshop in Moscow at the end of September.

6.2 - Draft Program of Work (Attachment O4)

The Operating Agent illustrated the draft Program of Work, circulated with the agenda, in the frame of Annex XI four objectives:

- a. Research and Development
 1. Common technology database
 2. Diagnostics
 3. Multi-sectoral general equilibrium capabilities
- b. Coordinated Analyses
 1. ETSAP-TIAM
 2. Improve the extraction/recalibration facilities for countries non equal regions
- c. Capacity building
- d. Tools maintenance
 1. Support to users
 2. New ETSAP tools distribution rules (not included in Attachment O4)

a.1. Common energy technology database

ETSAP plans to compile a new ETchDB because other databases are not injecting in the characterization of technology groups the insight necessary to use the data consistently in a model; for instance the Nuclear Energy Agency issues every three years a collection of electricity costs by country and type, but does not explain the differences. Aware of the importance of such a tool, ETSAP has produced three volumes of ETchDB at the beginning of its activity, in 1981-2. The compilation of a new ETchDB has been proposed several times since, but never implemented. There is an increasing interest in energy technologies and their characterisation (see interest in ETP, in MARKAL/TIMES). Also the IEA secretariat is interested in continuing the series of energy essentials, directly or indirectly. It seems a good moment to start.

It is proposed an ETchDB with the following structure:

- it should cover 90-100 groups of technologies, and data should be harmonised;
- 4-6 pages of text, graphs and tables should illustrate the status, give some ideas of present costs and efficiencies from catalogues, explain the drivers for different costs and efficiencies, and possible developments;
- references would support statements and figures;
- each text would be accompanied by a spreadsheet, with the parameters needed by the models; and
- simple software should be used (for instance word and excel).

Participants discussed possible starting point of the ETchDB. Existing technology repositories, linked to ETSAP-TIAM or EFDA or other technical economic models, seem inadequate because they have a weak documentation. The road maps and the elements contained in ETP2008 could be used, but all data need a major revamping, because in the last five years costs changed considerably, sometimes doubled.

The process followed so far consisted in contacting delegates and participants for ideas and proposals. The Operating Agent has contacted Mr. Giorgio Simbolotti, who drafted the first six technology essentials at the

IEA (and now works at ENEA, Italy), Mr. Martin Patel, Uni-Utrecht, ISI-Fraunhofer and Oeko-Institut (Darmstadt) for initial evaluations. ECN and VITO expressed interest to cooperate.

If the characterization of a cluster requires about 5000 euros, the compilation of the entire ETchDB could cost half a million euros. Having in mind the budget of ETSAP, this could require a commitment for 4-5 years. Some participants reminded that past efforts, such as the German IKARUS and the IEA-CADETT, although well financed, did not last. If ETSAP wants to succeed, should include also plans for maintaining the ETchDB for ten or more years.

Having in mind all these difficulties, a very gradual approach was suggested. The chair proposed that a team coordinated by the Operating Agent prepares a scoping study for the ETSAP-ETchDB. This scoping study should include the precise design of the ETchDB with examples, the description of the process, the list of selected contributors, the assessment of the cost based upon offers, the plan to completion, the plan of maintaining it. A session at next workshop could discuss the way forward. The delegates approved.

a.2. Diagnostics

IER agreed to develop and document post optimal analyses routines for the primal and dual problems, the values at optimum and cost-benefit ratio per technology or group. To the extent possible special GAMS features suggested by Mr. Gary Goldstein will be considered for use. Based upon the experience of comparing the country scenarios for ETP, Mr. GianCarlo Tosato plans to prepare some guidelines on benchmarking the scenarios produced by technical-economic models.

a.3. Multi-sectoral general equilibrium capabilities

Mr. Socrates Kypreos (PSI) proposed to hardlink a regional MARKAL-MACRO model to the MERGE model. This approach would exploit the MERGE framework representing international trade and economic interactions and learning, but maintain the technological detail of MARKAL for a region of interest. It is consistent with the section of the draft Program of Work dealing with adding general equilibrium capabilities to ETSAP tools by providing insights for establishing reliable hardlinks between general equilibrium and partial equilibrium approaches (and accounting for global interactions) to inform appropriate approaches for multi-sectoral general equilibrium modelling. Mr. Kypreos also noted that he intends to explore the resource depletion with the Hubbert curve formulation, as explained by Mr. Uwe Remme at the workshop, using an alternative non-linear formulation. To implement the above proposal, a detailed MARKAL-MACRO model will first be developed and calibrated for a region of interest. The corresponding region will then be split from the MERGE model. MARKAL-MACRO and MERGE will then be combined in a single non-linear model incorporating technology detail in the region of interest in addition to Endogenous Technology Learning (learning by doing, learning by searching) international commodity trade and global macroeconomic effects for general equilibrium solution. Mr. Hal Turton offered this activity to the benefit of all ETSAP participants, as in kind contribution of Switzerland. The ExCo gave the Operating Agent mandate to negotiate with the Swiss delegate the conditions to include this proposal in the program of work and accept it as in kind contribution.

Mr. Richard Loulou reported that in the same area something has been already done in the framework of the EC-TOCSIN project, where a complete (bilateral) soft link between the partial equilibrium energy system ETSAP-TIAM model and the general equilibrium model GEMINI-E3 has been implemented. A full run was completed, the convergence was rather quick and the convergence rate was quite satisfactory. This experiment is used to explore economic redistribution issues and trade. Not so much the feed back on the energy system, but the consequences of energy and mitigation policies, where redistribution issues are a problem.

Mr. Alfred Voss reminded that the text of Annex XI includes (point 2.a) the development of “myopic foresight: advanced myopic schemes with different foresight horizons for different sectors”. This

development, which has been already partly implemented at IER, helps solving very large models by reducing to one or two the number of foresight periods. The Operating Agent assured that this activity will be included in the program of work of this or next year. According to Mr. Gary Goldstein it is worth testing in this framework an improved version of the “market share algorithm” first developed in MARKAL for SAGE.

b. Coordinated analyses

Mr. Steve Pye asked whether there were ideas about coordinated analyses and studies. According to the Operating Agent on this subject there are ideas of using the same ETSAP-TIAM model by several groups, but not yet precise plans. It was suggested to explain new ideas in memos or short documents (2 pages: time frame, objective, participants, tentative budget) in order to make informed decisions before including them in the program of work.

b.1. ETSAP-TIAM

Mr. Richard Loulou gave a brief account of what happened in this area beyond what mentioned so far by the Operating Agent and illustrated the dissemination and analysis activities of the ETSAP-TIAM group since last workshop. Since the middle of 2007 the team in charge of ETSAP-TIAM undertook a full recalibration and revision of the model, also with the help of IER. That took part of the efforts till January.

Invited to a meeting of the IPCC in the Netherlands, meant to define new scenarios for IPCC, Mr. Loulou gave a presentation on ETSAP-TIAM models and scenarios. He was invited to a meeting in Washington DC convened by EMF (Energy Modeling Forum) and IPCC. That meeting marked the start of the “Integrated Assessment Modeling Consortium”, on which ETSAP belongs, together with about 15 groups of other integrated assessment models; ETSAP-TIAM became officially one of them. At the meeting the reference scenarios for next IPCC assessment report were defined, over which all modellers are supposed to work in the next few years. There is a long list of suggestions. EMF has a strong interest in that.

The next meeting was a pure EMF meeting in Dublin, Maryse and RL presented an updated hedging strategy based on new results of the ETSAP-TIAM model. The presentation was well received and they are preparing an article. One of the main new redefined objectives of EMF was to give substance to the “transition scenarios for stabilization”. The research question of this sub-task of EMF-23 is: what are the main possible routes that bring on stabilization but would depend on local shorter term policies? Here the definition of policies is much messier, assuming just some global trading schemes. The model will represent already decided policies or directives for Europe, the Lieberman Holmes bill in discussion at the Parliament for US, reasonable policies although not yet formally approved or discussed for other OECD countries; for large developing countries the story is much less precise. The team is now at a point where transition scenarios can be run. Next meeting is planned in Vienna, September 26-27, where results of the ETSAP TIAM model will be presented and compared with others. The plan of the group is to have full papers available at the very beginning of next year.

At the same time the team is still trying to modify some sectors of the model, but slowly because data solicited from other groups haven't arrived yet – for instance data from the IMAGE model to better represent land use emissions. At the same time the OPEC oil strategy has been implemented in the ETSAP-TIAM model; results have been presented at the workshop. Participants praised the team for their accomplishment: participating to IPCC has been an ETSAP target for a long time, EMF as well. The Chair thanked again Mr. Loulou of his activity.

The ETSAP-TIAM model has been distributed so far to the following Contracting Parties: Belgium (VITO), The Netherlands (ECN), UK (Steve), Finland (VTT), Germany (IER), Korea (KEMCO), US-EPA (requested). The first three of them received the version where their country has been subtracted from the WEU region and reinserted as a separate region.

b.2. Improving the extraction-recalibration facilities of countries in ETSAP-TIAM

A national model (Italy) extracted from ETSAP-TIAM has been tested and the process of completing the recalibration with the existing MARKAL-Italy model is underway. The procedure and the difficulties were presented in the last session of the workshop. The experience suggested devoting additional resources in order to improve the procedure.

c. Capacity building

Presently it is difficult to hire experts in MARKAL/TIMES modelling. At the same time there is some request for training courses: South Korea is sponsoring a training in BNL in summer, EC Petten and UK-PSI are planning a training course in UK in autumn, in the framework of the EC project REACCESS a training course was offered in Madrid in June, a new one will be held in Kazakhstan in September.

All participants recognised that it is extremely important that ETSAP offers regular (for instance every six months) training courses at a fee and is ready to organise training courses on request. In this direction, the Operating Agent will explore the possibility to offer a training course jointly with next ETSAP regular workshop. To the extent possible ETSAP training courses should generate some revenues. The possibility of developing a distance training course, as in the improved version offered by Alain Haurie, will be explored.

d.1. Support to users

The developers agreed with the Operating Agent that in the ETSAP web site the support@etsap.org address is opened for a test phase. At this address an ETSAP expert will answer to questions and forward them to the developers when necessary. The delegates approved.

Mr. Carmen Di Figlio stressed the importance of assuring a strong support to all ETSAP tools users. Mr. Steve Pye wondered where ETSAP is going in terms of tools support. From the UK users' point of view it would be good to have some clear indications about how ETSAP views the future in respect to ETSAP support to MARKAL. In particular the team at Kings College that is taking three people for research in this field would like to have a view and decide where to invest. Mr. Gary Goldstein reminded that a few meetings ago the ExCo decided not to use ETSAP resources to enhance MARKAL.

The Operating Agent assured that ETSAP intends to support the use of MARKAL, fix any bug a user may find and maintain the code. However it is not possible to replicate in MARKAL all new feature developed in TIMES, because the MARKAL code is much less friendly than the TIMES code. Enhancements achievable within limited time and budget (5-10 k€) will be implemented; replicating in MARKAL features such as the four stage stochastic seems out of reach. Also if others could develop this feature in MARKAL, it would be hard to maintain the code. The Primary System Coordinator will assess the cost of any proposed improvement and whether it can create a problem to the code. Mr. Ken Noble reaffirms that Noblesoft is committed to providing support to the very substantial number of ANSWER-MARKAL users.

d.2. New distribution rules

Since March the Operating Agent has proposed to the developers and the Primary System Coordinator possible new rules for improving the process of distributing ETSAP tools. So far the discussion was inconclusive. The Chair joined the discussion before the meeting. The chair made clear that ETSAP has to be transparent about how even the money gathered through the distribution of ETSAP tools is spent. The Chair asked the delegates' advice, maybe at a later moment via e-mail, on the following points:

- The sales of the users' interfaces (ANSWER, VEDA) and related GAMS-Solvers sales are originated by the distribution free of charge of MARKAL/TIMES. The Primary System Coordinator

and the developers (Noblesoft, KanORS) earn commissions on each sale. Showing in the ETSAP balance their income would add more transparency if they show how their income is generated by ETSAP related sales of product and services. Keeping in mind that the developers must receive a reward for their valuable contribution, what is an equitable share with ETSAP of the money the developers make due to ETSAP?

- For these developers to continue their activity for ETSAP there is a minimum cost. Should we consider a minimum payment to keep them alive, active for ETSAP? Should ETSAP pay for their participation to the biannual workshops?
- Chair asked delegates to come forward with new proposal if they find the current arrangement for outside contact is not appropriate.
- Chair also asked delegates to communicate with him if they know any better arrangement for defining and prioritizing projects.

The Primary System Coordinator clarifies that the developers acknowledge the fact that their products and service would not exist without ETSAP. So far funds raised by the Primary System Coordinator and developers were not shared with ETSAP. The idea now is that some of the funds raised by developers find their way to ETSAP and thereby create a little more transparency and allow new people to be involved in the process of supporting the community and developing the tools. The tangential part of this is that some time is necessary for them to give up some funds. Mr. Klaus Hammes wonders what is the order of magnitude of the revenues generated from selling the tools. Mr. Gary Goldstein evaluates that the share for ETSAP could be equivalent of a country participation fee.

On the other side covering the cost of travels for attending ETSAP meetings has not been done by ETSAP so far. About having the developers at the workshop, according to Mr. Steve Pye, it is very important that they attend, as it is one of the few opportunities that delegates and experts have to interact directly with them. Mr. Ken Noble stressed the importance of taking well informed decisions.

The Chair, after receiving the delegates' point of view, will continue the discussion with the Operating Agent, the Primary System Coordinator and the developers, prepare a proposal and submit it for approval to the delegates.

Prior to the meeting, and independently on any decision on new distribution rules, the IEA Office of the Legal Council suggested to change the Letter of Agreement (LoA) for the distribution of ETSAP tools, in accordance to article 4(b)(2) of the Implementing Agreement and article 11(i) of Annex XI. Since the Operating Agent holds all property that accrues to the IA on trust, the ExCo gives to GianCarlo Tosato the authority to sign this revised Letter of Agreement on behalf of the ETSAP IA (attachment O8).

Additional recent activities

Mr. Alfred Voss asked about the results of the actions decided at the Brasilia ExCo. The Operating Agent had contacted Mr. David de Jager, the Operating Agent of the IEA Renewable Energy Technology Deployment (RETD) Implementing Agreement, and had proposed to use the ETSAP-TIAM model to “assess costs and benefits of a global RD&D project of renewable technologies under different climate mitigation and energy security scenarios”. Mr. de Jager had answered: “At this stage the RETD’s activities on energy scenarios are more oriented towards assessing and contributing to the key assumptions on renewable energy technologies in IEA’s WEO and ETP work. So no concrete model activities are proposed at this stage. I will inform the RETD ExCo and contact you in case the RETD envisages to be more active in this area.” A similar proposal to the Ad Hoc Group for Science and Energy Technologies (AHGSET) had received from Mr. Tom Kerr (IEA) the following answer: “We have had much discussion internally here about AHGSET,

our road-mapping exercises, and other outputs for the coming year. We would like to explore how we might work together as we move forward in this effort. However, I should be clear that AHGSET itself does not have any funding to support modelling exercises by ETSAP. We may receive funding after the G8 process is complete in July for road-mapping; if this is the case, we will contact you to discuss this further.”

The Operating Agent presented ETSAP activities at the Second FIMA (Federazione Italiana di Matematica Applicata) International Workshop on “Energy and Environment: new challenges to mathematical modelling and applications”, Champoluc (Italy), Jan 21-24, 2008.

Invited by Mr. Dolf Gielen, ETSAP experts (Mr. GianCarlo Tosato, Mrs. Denise Van Regemorter, Mr. Richard Loulou, Mr. Gary Goldstein, Mr. Uwe Remme) presented the ETSAP methodologies to the IEA/ETO (July 2, 2008). The presentation was followed by 12-14 IEA experts, including the new director, Mr. Pieter Boot. Mr. Dolf Gielen thanked for the successful presentation.

The May issue of the IEA OPEN Energy Technology Bulletin announced ETSAP Annex XI as follows: “The IEA Energy Technology Systems Analysis Programme ([ETSAP](#)) is embarking on a new [Annex XI: JOint STudies for New and Mitigated Energy Systems \(JOSTNAMES\)](#). The new project will further advance the MARKAL/TIMES modelling and analysis tools that help decision makers to identify optimal energy-system pathways and mobilise technology policy responses to today's pressing energy challenges. MARKAL is notably used by the IEA Secretariat's *Energy Technology Perspectives* project. ETSAP's network of national experts around the globe generates in-depth domestic, multi-country, regional and global energy/environmental [analyses](#) using a common, comparable, open [methodology](#). Interested parties should contact [Gian Carlo Tosato](#).”

6.3 - Draft budget for 2008 (Attachment O7)

The Operating Agent illustrated the budget proposal, circulated with the agenda. On the income part, six Contracting Parties already paid their 2008 fee; at least another six are expected to pay. One or two new participants indicated their intention to pay as soon as the administrative procedures will be completed.

Then the Operating Agent illustrated the expenditure part. With respect to first draft proposal discussed in Brasilia there are a few differences. The remuneration of the Operating Agent is increased by 10%. A new line, maintenance of the TIMES code is added, for symmetry with the other three allocations for licenses and maintenance. A new allocation for on line support is added, following one of the proposals presented above, at agenda item 6.2. Some funds are allocated to the new TIMES-VEDA and a similar figure for TIMES-ANSWER. The total of base activities is 116keuro, regrettably above what suggested in Brasilia. Mr. Gary: Goldstein makes clear that 10k€ is too little for participating to the two ETSAP workshops; he needs 15-20keuro. He proposed to further discuss the issue with the Operating Agent, especially considering the fact that in the future he should share with ETSAP his commissions for the distribution of the software. The Operating Agent will wait to learn the views of the delegates and will act in close cooperation with the chair and deputies.

The Operating Agent signaled that the draft circulated with the agenda contains a mistake in the allocation for the ETSAP TIAM related activities; this is now 50keuro and includes an allocation for maintaining / improving the national extraction and recalibration procedures. The scoping study for developing and maintaining an ETSAP common technology database could need less than 30keuro. The expected surplus of about 100keuro should be allocated in 2009 for the implementation of the technology database.

Depending on the indications of the Delegates to the Chair after the meeting, the budget will be modified – for instance the allocation of funds for workshops, if the participation of the software developers and the Primary System Coordinator have to be covered by ETSAP; or the income, to the extent that the commission for the sales of ETSAP related software will be shared.

Mr. Richard Loulou suggested that the chair and some members of the ExCo look the compensation to the Operating Agent himself. He knows that he spent a lot of time on ETSAP business and the ExCo may take a look to how much the Operating Agent has to be rewarded. Some mechanism should be set up. The Chair has the same perception. After ascertaining with Mr. Tosato how much work is involved in serving as Operating Agent, he will ask the delegates their point of view.

7. Other business

7.1 - Election of the chairperson

The Operating Agent took the chair. He proposed to confirm Mr. Hertsel Labib as chair and Mr. Alfred Voss / Mrs. Anne Flerens as deputy chairs. Klaus Hammes seconded the proposal, nobody opposed. The proposal was approved. Therefore they are confirmed in office for another year.

7.2 - Report of the Workshop

The Operating Agent pointed out that this International Energy Workshop was at the limit (or above) the capacity of the meeting rooms. The number of presentations exceeded the amount that could be hosted in three parallel sessions in three days of workshop. For this reason Thursday morning ETSAP hosted an additional IEW parallel session, chaired by Leo Schrattenholzer, co-founder of IEW. The Operating Agent proposed to continue and have joint workshops with the IEW in the years to come. The delegates endorsed this proposal. The possibility to sponsor future IEW events will be discussed at next ExCo meeting.

7.3 - Next ETSAP Workshops

Leo Schrattenholzer announced that next IEW will be held in Venice, June 17-19, 2009, hosted by Fondazione Eni Enrico Mattei (FEEM). The ETSAP regular Workshop and ExCo will be held the preceding Monday and Tuesday, June 15-16, 2009. In 2010 the International Energy Workshop could be held in Japan.

The regular autumn 2008 workshop of ETSAP will be held in Southern France (Sophia Antipolis, Nice) Wednesday to Friday December 17-19, 2008.

The chair closed the meeting at 19.00.