

ETSAP - ENERGY TECHNOLOGY SYSTEMS ANALYSIS PROGRAMME

Implementing Agreement of the INTERNATIONAL ENERGY AGENCY – IEA/AIE

DRAFT MINUTES OF THE EXECUTIVE COMMITTEE MEETING

*Held on Thursday, June 28 (16.00 – 19.00), 2007, at the
Hartley Conference Center, Mitchell Earth Sciences Building
University of Stanford, Palo Alto, California, USA*

PARTICIPANTS

Contracting Parties' Representatives:

Belgium	Ms. Anne Fierens
Canada	Mr. Hertsel Labib
Germany	Mr. Alfred Voss

“Stand-ins”:

Denmark	for Mr. Aksel Laurids Beck	Mr. Kenneth Karlsson
Finland	for Ms. Pia Salokoski	Mr. Sampo Soimakallio
Italy	for Mr. Vincenzo Cuomo	Mr. GianCarlo Tosato
Japan	for Mr. Masanori Nagai	Mr. Osamu Sato
Korea	for Mr. Jong-Whan NOH	Mr. GianCarlo Tosato
The Netherlands	for Mr. Koen Smekens	Ms. Anne Fierens
Sweden	for Mr. Klaus Hammes	Mr. Sampo Soimakallio
Switzerland	for Mr. Socrates Kypreos	Mr. GianCarlo Tosato
Turkey	for Mr. Tanay Sidki Uyar	Mr. GianCarlo Tosato
United Kingdom	for Mr. Stephen Pye	Mr. GianCarlo Tosato
United States	for Mr. Carmen Di Figlio	Mr. Paul Friley

Contracting Parties not officially represented

Australia	
European Commission	Ms. Maria Rosa Viridis
Greece	Mr. George Giannakidis
Norway	

ETSAP Representatives:

Operating Agent	Mr. GianCarlo Tosato, Italy
Primary Systems Coordinator	Mr. Gary Goldstein, US
IEA Desk Officer	Mr. Dolf Gielen, stand-in for Mr. Peter Taylor

Guests:

Mr. Marcus Blesl	IER, University of Stuttgart, Germany
Mr. Maurizio Gargiulo	Polytechnic University of Turin (PoliTo), Italy
Mr. Gilles Guerassimoff	Ecole de Mines Paris, France
Ms. Alison Hughes	Energy Research Centre, University of Cape Town (ERC-UCT), S. Africa
Mr. Amit Kanudia	KanORS Consulting, India
Mr. Evasio Lavagno	Polytechnic University of Turin (PoliTo), Italy
Mr. Richard Loulou	HALOA Inc., Canada
Mr. Bruno Merven	Energy Research Centre, University of Cape Town (ERC-UCT), S. Africa
Mr. Ken Noble	Noble-Soft Systems, Australia
Mr. Uwe Remme	IER, University of Stuttgart, Germany
Ms. Denise van Regemorter	KUL, Belgium

Opening

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

Mr. Labib welcomed all and thanked them for their willingness to change date and time of the ExCo meeting. He also thanked John Weyant and Stanford University for making appropriate facilities available and hospitality. He has also announced that three Contracting Parties appointed new delegates: Ms. Maria Rosa Viridis by the European Commission, Mr. Masanori Nagai by Japan, and Ms. Pia Salokoski by Finland.

1. Quorum Count

As listed in the text of the Implementing Agreement, presently ETSAP has 18 Contracting Parties, requiring 10 to be represented for a Quorum. With 3 Contracting Parties represented by the delegates and 11 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 M1, M1bis)
 4. IEA/ETSAP Implementing Agreement
 - 4.1 - *Communication from the Secretariat*
 - 4.2 - *ETSAP cooperation with IEA's G8 Gleneagles Programme (Attachment M2)*
 5. Annex X (2005-2007): Global Energy Systems and Common Analyses
 - 5.1 - *Report of activities (Attachment M2 bis)*
 - 5.2 - *Conditions to access the TIMES Integrated Assessment Model (Attachment M3)*
 - 5.3 - *2007 Budget proposal (Attachment M4, pages 1-2)*
 - 5.4 - *Contracting Parties and Participation*
 - 5.5 - *Extension of the duration of Annex X at no additional cost*
 6. Draft Annex XI: Joint studies for new and mitigated energy systems
 - 6.1 - *Draft text (Attachment M5)*
 - 6.2 - *Draft budget (Attachment M4, page 3)*
 7. Other business
 - 7.1 - *Election of the chairperson*
 - 7.2 - *Report of the Workshop*
 - 7.3 - *Next regular ETSAP Workshop*

Attachments:

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| M1 | Minutes of the Executive Committee, held in Stuttgart, Friday, Nov 30, 2006 (not resent) |
| M1bis | Details of the written procedure (not resent) |
| M2 | Minutes of the IEA/ETP-ETSAP Workshop (Paris, June 4-5, 2007) |
| M2bis | Summary report on ETSAP-TIAM activities (June 20, 2007) (new) |
| M3rev | Condition to access ETSAP-TIAM |
| M4rev | Budget proposal for 2007 and draft proposal for 2008 (Annex XI) |
| M5rev | Draft Annex XI: JOint STudies for New And Mitigated Energy Systems (JOSTNAMES) |
| M6new | Minutes of the IEW Steering Committee meeting (Stanford, June 26, 2007) |
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3. Results of the written procedure (Attachments M1, M1bis)

The Operating Agent communicates that the Stuttgart minutes were approved by written procedure, with 5 delegates approving and no one opposed. The final minutes are posted on the ETSAP website.

4. IEA/ETSAP Implementing Agreement

4.1 - Communication from the Secretariat

The Chair noted that Peter Taylor, was not able to attend congratulating him on his new baby.

The Operating Agent drew attention to the 2007 edition of Energy Technologies at the Cutting Edge, which discusses all IAs, including ETSAP. It is now available to view or download at http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1890. Each Executive Committee member will soon be receiving hard copies of the report. Mr. Tosato then brought to attention of the members that before using IEA logo, they should obtain IEA's approval (IA Handbook <http://www.iea.org/impag/index.asp>).

He also mentioned that, on behalf of ETSAP, he sent some material to be displayed at the Technology Fair, Paris, May 14-15, 2007. As of yet there has been no feedback from the IEA with respect to the fair. Mr. Gielen indicated that the Fair was a great success, and thanked ETSAP for its contribution.

4.2 - ETSAP contribution to IEA's G8 Gleneagles Programme (Attachment M2)

Mr Tosato noted that one of the major activities of the G8 Gleneagles Programme of work was the ETP2006 publication, and that owing to its success the IEA will be moving forward with the publication of ETP2008. He indicated that Mr. Gielen will be heading ETP2008 undertaking. He will be coordinating the contribution of ETSAP participants to ETP2008, where the IEA is looking for ETSAP (and others) to assist with adding country specific details to the global analyses (resulting from the ETP global model).

Mr. Tosato noted that some ETSAP participants will be offering in-kind contributions by using their national models, as was discussed at the Paris ETP2008 workshop (June 4-5, 2007). Mr. Gielen gave an update on the anticipated contributions indicating the current status of discussion with various countries.

- USA, Germany, France, and Italy will be making a contribution, as shown at this ETSAP WS;
- Canada: the IEA is talking with the CERT member from NRCAN. The Canadians may be using MAPLE-C, or a CGE for a relatively shorter horizon. The IEA would prefer MARKAL/TIMES or similar models be used so that a consistent methodology is employed by all contributors.
- UK: Policy Studies Institute, George Marsh's group, and UK NEEDS team have all indicated a willingness to contribute. The IEA has asked DTI how they want to proceed, with the same desire to use a ETP compatible framework .
- SA: the South African National Energy Research Institute (SANERI) has expressed interest to participate.
- Brazil: the IEA is trying a few different routes.
- India: Reliance Industries Ltd., is interested in contributing but not using a MARKAL/TIMES compatible framework. The IEA is following up with IIMA and TERI.
- Mexico: names of several government contacts have been put forward, but no other development to date.
- Russia – an expression of interest has been received from the Institute for Economies in Transition, but they do not have a viable model ready.

The Operating Agent then noted that ETSAP supports directly and indirectly modelling groups in a number of the +5 countries with an eye towards encouraging their contribution to ETP2008, to the extent possible. He reported progress to date as noted below.

China

- 3 training sessions have been conducted in China on the ETSAP tools;
- Prof. Yufeng Yang, the Energy Research Institute and Beijing University of Technology, aims to build a 34 provinces model, which is underway, and
- Prof. Chen, Tsinghua University, is looking at improving the China region of ETSAP-TIAM and building a 4-region MARKAL model (with the direct support of IEA/ETO as input to ETP2008).

ETSAP has co-funded (with PoliTo and IEA/ETO) the training courses in Beijing. KanORS has been generous with VEDA licenses. Progress so far is slow.

South Africa

ETSAP has given a subcontract to the Energy Research Centre – University of Cape Town (ERC/UCT) to look at improving the Africa region of the ETSAP-TIAM, and to start with the development of a 2-region sub-model: South Africa/Rest-of-Africa. If there is co-funding provided by South African (or other) institutions it is expected that by the end of this year this undertaking could be in the position to contribute to ETP2008

Brazil

IER will offer a training course to six experts from the Ministerio de Minas and Energia (MME) and Centro de Pesquisas de Energia Eletrica (CEPEL) in July, where perhaps it will be possible to build an initial version of a Brazilian model. It is proposed that ETSAP contributes to the next training, planned to be held in Brasilia before next ETSAP regular workshop, which will focus on to the improvement of the Brazilian model.

Russia

Oleg Lugovoy, now at Environment Defence (Washington DC), and Inna Gritsevich of the Institute for Economies in Transition (Moscow) are ready to contribute to ETP2008. They are in the early stages of building a TIMES-Russia model, but they would greatly benefit from some training. Then, if the ExCo endorses the idea of giving the present FSU region of ETSAP-TIAM to Oleg, they could analyse the data, improve it, and perhaps try to regionalise the model. The PoliTo is ready to provide some contributions towards these activities.

Mexico

A contact from India familiar with Mexico/CA could look at the model assumptions if supported.

Prof Voss noted that without having started, he did not believe that some of the groups mentioned would be able to have models and results ready for ETP2008. Mr. Gielen indicated that a fallback is to find an organization with a similar model. Mr. Goldstein offered to contact Charlie Heaps, Stockholm Environment Institute, to see if there are any LEAP modelling teams in the +5 that might be able to contribute to the ETP2008. Mr. Gielen is tracking all these activities.

Mr. Tosato then turned to the IEA-NEET (NETWORK of Expertise in Energy Technology) activities, noting that it contributes to the G8+5 POW by linking with energy ministries and research institutions in China, India, Brazil, South Africa and Mexico, presenting the IEA Implementing Agreements and proposing joint activities. On behalf of ETSAP, Mr. Tosato participated in the first NEET workshop held in Johannesburg on February 20-22, 2007. Contacts with the South African National Energy Research Institute (SANER) will enable co-funding the studies of ERC/UCT with ETSAP-TIAM. Mr. Tosato also expects to attend the next NEET workshop scheduled to be held in Beijing, China (October 29-31, 2007) and Brasilia, Brazil (November 27-28, 2007, to be confirmed; see below agenda item 7.3).

5. Annex X (2005-2007): Global Energy Systems and Common Analyses

5.1 - Report of activities (Attachment M2 bis)

The Operating Agent briefed the Executive Committee on the current status of the Annex X program of work.

The ExCo takes note of the report on the status and advancement of the program of work and invites the Operating Agent to continue his effort to complete it by the end of the Annex X.

5.2 Conditions to access the TIMES Integrated Assessment Model (Attachment M3 revised)

Mr. Tosato indicated that the main discussion points with respect to the access to TIAM are:

- the model is not intended for commercial use, at this time;
- the access rules should be designed to ensure quality and proper use of the framework.
- a goal is to share as much as possible, but as just noted, ensure proper use, and
- criteria needs to be established for gaining access.

Mr. Tosato asked those in attendance to read points 2 and 3 of the document (with the additional point related to maintenance and updates), summarized here.

- Access is granted on a research basis to users with propensity to publish, for carrying out studies, analyses, reports and scientific publications.
- All users commit themselves to submit all intended studies, papers, reports and presentations based upon the use of the ETSAP-TIAM model for peer review and quality control before publication to an internal ETSAP committee. This should allow ETSAP to monitor that the model is used properly.
- Prospective users must be licensed users of the ETSAP tools (MARKAL/TIMES), demonstrating competency with the tools, before gaining access to the ETSAP-TIAM model.

He then opened a discussion regarding crafting ETSAP's policy as to access to TIAM by noting "if we give our models and studies away for free, they lose value." A lengthy, substantive, constructive discussion then proceeded.

In terms of immediate access to TIAM this fall, Mr. Sato requested clarification on Contracting Parties versus designed institutions, where the latter will be reflected in the next draft of the proposed Guidelines. In addition, a clause permitting the OA to grant access to individual/teams directly contributing to TIAM needs to be included.

Ms. Fierens ask what if a university department wants to go directly to TIAM without demonstrating experience with TIMES. And who decides on competency, a concern that Prof. Voss echoed as well. After various exchanges it was decided that the competency clause would be removed, replaced by a statement that the OA will have the authority to decide on a case-by-case basis about granting access. It is suggested that all requests for access are to be submitted to the OA in writing, indicating the institutions that will be involved, the primary purpose of the access (it was not felt that access for the purpose of accessing data was justified, for example), and providing a clear indication of experience with the ETSAP Tools, or similar frameworks.

The Committee requested Mr. Tosato to reflect the various opinions expressed and provide an updated draft of the Guidelines. This update should both reflect ETSAP's access policy, procedures to be followed by those requesting access, and include a draft Letter of Agreement that will need to be executed by those requesting access. These will be circulated to the ExCo for comment, with an eye towards full approval of the procedure by the next ExCo meeting. It was also decided that whatever is approved at that time (next ExCo meeting) will be reviewed after one year.

With respect to requests received to date:

- Mark Jackard (Canada) requests access to the full model database for comparison with the data used in his simulation modelling approach;
- Oleg Lugovoy, Environment Defence and the Institute for Economies in Transition, Russia, would like to run the FSU region of ETSAP-TIAM, and contribute to its improvement; and
- Vlasios Oikonomou, a PhD candidate at RUG, the Netherlands, has requested access to the WEU region for his thesis.

The ExCo approved that Mr. Tosato grant Mr. Lugovoy access to the FSU region and Mr. Oikonomou to the WEU region. The request of Mr. Jackard will be discussed again after the new draft rules are approved.

5.3 - 2007 Budget proposal (Attachment M4, pages 1-2, amended)

The Operating Agent noted a quote from agenda item 5.2 of the Stuttgart minutes.

“The Executive Committee approves the base budget and authorizes the operating agent to commit 20k€ of the additional resources. The possibility to commit the rest of the additional resources will be discussed at the next Executive Committee. In case the number of participants is lower than 10 and there is a budget shortfall, the amount paid by ETSAP to its sub-contractors for the 2007 orders will be reduced correspondingly.”

Mr. Tosato proceeded to present the main points of the 2007 budget, and reviewed the proposed activities and tasks.

- In 2006 13 contracting parties sent their fee; IER sent a voluntary contribution, the previous operating agent (Polytechnic University of Turin) sent 30k€ more than expected.
- 3 fees paid for 2007, plus German voluntary contribution (4, as of August 24).
- For 2007 two hypotheses are presented.
- The minimum hypothesis (8 fees) foresees the same expenditures of 2006, with the addition of:
 - support to IEA-G8+5, already committed;
 - drafting and printing the final report; and
 - development of TIMES by VTT through a contract that could not be carried out in 2006;
- In the high hypothesis (12 fees) the additional funds would go to:
 - Additional documentation on ANSWER/TIMES, etc.;
 - Additional features for VEDA/ANSWER, a list of which will be prepared for ExCo prioritization;
 - Additional support to IEA-G8+5 (above the 30k€ already spent):
 - 2nd training in Brazil;
 - More assistance for China, and
 - Mexico.
- For both scenarios some (small) residuals will be carried-over to 2008 to ensure continuity while the next Annex gets underway.

A discussion then ensued. Prof. Voss asked for clarification on the IEA/ETP-NEET funds. Mr. Tosato indicated that funds spent so far were for the South Africa NEET workshop and initial support for China. The rest is for continuing to support the ETP effort in China. Ms. Fierens asked why ETSAP funds were going into IEA-G8+5. Mr. Hertsel then expressed the opinion that the IEA should be paying ETSAP, particularly given the strong government support for the ETP2008. Mr. Gielen indicated that ETSAP has received €20k for contributions to ETP2008. He also noted that ETSAP interest in working with +5 was also to improve TIAM. He also noted that most of the cost was related to training the +5 in the ETSAP tools, and that perhaps there might be less expensive ways for ETSAP to do the training.

Mr. Labib asked if the IEA-G8+5 budget was putting funds aside for modelling and analysis? Ms. Fierens noted that the IEA was indeed making a specific request to ETSAP to contribute to ETP2008 by conducting national assessments, and that funding this would seem appropriate. Mr. Gielen acknowledged that the IEA has asked ETSAP to contribute to the ETP2008, and that the IEA is grateful for the positive response of a

number of the ETSAP partners. Mr. Labib came back to the fact that while the IEA was providing €20k towards the IEA-G8+5, ETSAP was injecting €60k and perhaps more (as noted by Prof. Voss). Mr. Gielen expressed the opinion that the IEA-G8+5 label for the ETSAP contribution was misleading, as it was real funds being earmarked at promoting the ETSAP tools. Mr. Tosato noted that if there are not properly trained people the analysis sought by the IEA for +5 contribution to the ETP2008 can't happen. To better clarify what the funds are actually,, Mr. Tosato will split the budget item 6.3 into sub-categories.

Ms. van Regemorter expressed the position that more funding should be earmarked for VEDA/TIMES development (e.g., benefit/cost ratio reporting, mechanism to aggregate regions, etc.), rather than TIAM and G8. This was echoed by Ms. Fierens, who suggested that perhaps separate Annexes should be run, one focused on development of the tools, and another for TIAM and training/outreach. In both cases the main concern along these lines was the allocation of the "high" hypothesis budget. Mr. Labib then asked if perhaps the ExCo was in agreement of the minimum budget, which was approved.

With respect to the higher budget, Mr. Tosato agreed to provide a list of suggested improvements to the ETSAP tools that will be circulated to the ExCo for agreement as to need and priority. But he noted that he feels that there are important opportunities at this moment for establishing the ETSAP tools in new (key) areas, and that ETSAP should grasp the moment – in fact, although the ExCo has repeated its commitment to contribute, nothing was spent for IEA/G8-5+ in the previous years for lack of significant opportunities. Prof. Voss wondered if the allocation to IEA-G8+5 activities of €80k (IEA+ETSAP) could be effectively spent. Mr. Tosato clarified that thus far €25k of the combined funds have already been spent, and felt that the balance could indeed be put towards beneficial actions in the +5, specifically right away he felt that €10k for 34-region China model (IER and BUoT), €10k for Brazil training, and €10k for Mexico should be allocated. He also noted that in addition it is assumed that TOCSIN would have something for ETP2008 by end of year.

Mr. Gielen expressed his opinion that the time schedule is very ambitious. He noted that if an institution starts today, it will be very unlikely to have a viable contribute to ETP2008 before the end of the year, too late for ETP2008. It probably would be wiser to look for results in a year or 2, for ETP2010. He did also note that such capacity building is still a very important effort giving the importance of pressing issues for post-2012. He expressed the opinion that if ETSAP wants its tools to play a significant role, ETSAP needs to invest, as an opportunity.

Prof. Voss asked whether the additional funds for China were for training or support of running, to which Mr. Tosato indicated mostly the latter, pushing for results by the end of the year (in time for ETP2008).

Prof. Voss then ask what the likelihood is that there will be 13 participating parties, to which Mr. Tosato indicated that he anticipated 14 (including France and Norway). Prof. Voss suggested that any contribution above 12 be earmarked for the development of tools, which Mr. Tosato agreed and re-iterated that he'll circulate a list of suggested enhancements to the model generator and "shells".

The budget was then approved as is, with indication of any additional funds will be going towards the development of the tools.

5.4 - Contracting Parties and Participation

Communications from various Contracting Parties and the Secretariat are summarised as follows:

- The government of France has indicated its intention to join ETSAP and participate in the current Annex as of 2007;
- A communication from Fridtjof Unander indicates that there is an increasingly likelihood that Norway will re-engage in ETSAP, most likely next Annex;
- Denmark is invited to sign the letter of participation and indicate officially to the IEA its delegate to the ExCo, and

- The IEA Executive Director has received a letter dated 25 January 2007 from the Government of Turkey in which it asks the ExCo to vote it withdrawn as of the date of the letter. The ExCo voted and approved. As a consequence, there are now 17 Contracting Parties.

Ms. van Regemorter asked what happens on the software front when a country leaves. Mr. Tosato indicated that as is the case with any licensee of the ETSAP tools they can keep the last version that they have, if new versions are sought they need to make arrangements with the developer, as is the case for ongoing maintenance. Mr. Noble noted that the developers make numerous enhancements to the software that are not explicitly paid for by anyone that benefit. Mr. Tosato reminded the ExCo of the decision taken 4 years ago to provide the MARKAL-TIMES model generators to interested parties at no charge owing to the fact that it was developed with public funds. Mr. Gielen and Ms. van Regemorter re-iterated that various institutions and countries make contributions that benefit all, which was acknowledged by all.

5.5 - Extension of the duration of Annex X at no additional cost

Mr. Tosato proposed to extend Annex X until July 31, 2008 at no cost for the Contracting Parties, in order to complete the program of work and to avoid periods without any Annex. This suggestion was approved.

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

6.1 - Draft text (Attachment M5)

“Why is it worth continuing ETSAP?” For the next Annex Mr. Tosato suggested discussing four objectives and topics for common projects.

1. Joint analysis
 - In general terms, looking to provide result as a collection of analyses for common purposes, offering independent in-depth analysis.
 - There should be benefits to the Contracting Parties if the ETSAP tools are used collectively to jointly examine common issues.
 - What is to be the nature of the continuation of ETSAP-TIAM and participation to EMF-22, and other TIAM-based projects?
 - What is to be the nature of ETSAP’s contribution to ETP2010?

Ms. Fierens stated that perhaps these should be voluntary country contributions financed separately rather than drawing on ETSAP funds. That is, countries interested should use their own funds. She indicated that it was difficult to keep funding ETSAP for these kinds of activities. Mr. Tosato mentioned that if he was trying to convince a sponsor, he would emphasize that spending for ETP/EMF is important since their use of the ETSAP methodology gives more credit to what is done domestically using the same tool. He also indicated that only by running a project does the tool move forward, highlighting how for instance NEEDS contributed to the advancement of TIMES/VEDA to the benefit of all. Ms. Fierens appreciated this, indicating that it perhaps depends upon what percentage of the budget would be allocated for such purposes.

Prof. Voss asked about the suggestion of ETSAP trying to contribute more directly to the COP by regularly responding to COP proposals with collective and/or TIAM mini-assessment information notes. He was sceptical that the COP was the right audience indicating that maybe ETP is more appropriate. He also felt that participants need to strive to influence their national delegates rather than ETP going to the COP. Mr. Loulou wholeheartedly agreed. He also noted that it was often quite difficult to figure out exactly what comes out of the COP in terms of properly defining proposal for evaluation by the models; and that to this end some issues are easy to model, some not. Prof. Voss wrapped up this discussion indicating that he does not feel that this is a good activity for ETSAP, but

that under coordinated analyses ETSAP partners take appropriate steps to communicate to country decision-makers. This position was endorsed by the rest of the ExCo.

2. Capacity building

- What should be ETSAP's contribution to the +5 countries?
- What other new capacity building should be considered?
- Are we able to identify potential new users?

Ms. Fierens again indicated that perhaps these activities should be funded voluntarily by means of countries' own funds. The discussion held and decisions taken earlier with respect to the 2-stage budget, setting of development priorities, and limits on how much any one area might receive were again referred to and agreed upon.

3. Research and development

The need for ongoing research and development was core to ETSAP and therefore mandatory according to Mr. Tosato. Mr. Loulou echoed that belief that such endeavours were interesting and exciting and beneficial to all and needs to be pursued continually, not simply tomorrow. Mr. Noble mentioned that with all the ideas and goals sponsors with deep funding really need to be found, though ETSAP accomplishes a remarkable amount with its limited resources.

The need for perhaps establishing an ETSAP database was raised by Ms. van Regemorter. She expressed the view that this was something that ETSAP could contribute; she encouraged an activity to review what is around (IEA/EU/IAEA) and not to start from scratch. The main goal would be to share the repository, which would document data and sources. Mr. Tosato mentioned the efforts he's been making to lobby for technology information to become part of energy balances. He then concurred that this work should be done and would be reflected in the Annex XI work plan. Mr. Goldstein pointed out that LEAP maintains quite a robust RES-based technology database and was asked to contact Charlie Heaps to discuss the idea. Prof. Voss emphasised that ETSAP should first look to develop a concept, and try to avoid ending up with different numbers that cannot be readily used for modelling (e.g., CO2DB).

4. Core activities (to which €90k would be allocated)

Mr. Tosato indicated that the core activities, representing the minimum required to have an Annex, were:

- An Operating Agent;
- Workshops, and
- Maintenance of the ETSAP tools.

Ms. van Regemorter highlighted the priorities for Belgium as:

- Compilation of a technology database
- Computation of levelled costs (in VEDA)
- Benefit/Cost ratio report
- Pseudo-optimal solution
- Aggregate country
 - Mr. Kanudia suggested convert a detailed model to final energy only, not easy to aggregate.
 - The idea of perhaps aggregating in the GAMS code was mentioned.
- Flexible data input (direct link to ACCESS from VEDA)
 - Mr. Kanudia suggested that the data should be readable by Excel. Nothing to happen on this front now
- ETSAP Website should have an area for questions and to share techniques.
 - Mr. Kanudia demonstrated the tracking and dialog forum supported at www.Kanors.com/home.aspx, indicating that it could serve as a start.

Mr. Labib asked Mr. Tosato to reflect the positions of the delegates in the revised draft of Annex X.

6.2 - Draft budget (Attachment M4, page 3)

Mr. Tosato opened the discussion by noting that in the past the development of the ETSAP tools had benefited from the substantial contribution of several projects, such as AusAID EPSAP, EIA-SAGE, IEA-ETP, NEEDS, TOCSIN, USAID SEE-REDP. In the last few years, the financial support from international aid agencies or research projects is ten or more times larger than ETSAP budget.

Mr. Tosato then laid out two approaches to the funding: the first is to maintain the fee at €20k per participant, the alternative is to increase it to €40k. The delegates immediately made it clear that raising the fee above the current level was not an option. The same position was expressed by e-mail by delegates who could not attend (Korea, UK). Difficulties to participate in Annex XI are expressed by Japan and Switzerland.

Mr. Labib then asked to go around the table for an indication by the delegates of who expects to participate in the next Annex:

- Belgium, wants to know the splits (not interested if 90% to capacity building); intend to participate given the R&D commitment statement.
- Canada, yes, assuming 20k€.
- Denmark hopes to and will increase pressure.
- Finland, Mr. Soimakallio was not advised and could not say.
- France, yes (see earlier discussion).
- Germany, the impression is that there is a good chance that Ministry will continue to participate.
- Japan, cannot regardless of fee, because, as reiterated by Mr. Sato, there will not be enough capacity after he retires.
- United States, Mr. Friley could not say.

Since the number of participants is not known in advance, Prof. Voss suggested to specify in the text of the Annex that the annual fee will be 20k€ per participant and the ExCo will decide the annual budget taking into account the number of participants. No more than 100k€ of the budget would be devoted for the base activities (d). Priority is to be given to R&D in the allocation of the remaining part of the budget.

7. Other business

7.1 - Election of the chairperson

The Operating Agent took the chair. Prof. Voss proposed to re-elect Mr. Labib as the Chair, which Mr. Tosato seconds and the participants then endorse. Mr. Labib accepted and expressed his appreciation.

Since MEXT deems that Japan will have difficulties to participate in the Annex XI of ETSAP, MEXT considers that it is not appropriate for Mr. Nagai to continue to be a vice-chair for the next year. Mr. Tosato nominated Ms. Fierens and Prof. Voss, which the Chair seconded and the representatives approved.

7.2 - Report of the Workshop (Attachment M6)

There was a short report given on the Steering Committee meeting of IEW held in Stanford on June 26, 2007 (the minutes are attached). The Steering Committee also indicated that it was pleased that there are annually more presentations, reaffirming interest. The IEW2008 will be held in Paris at the IEA Headquarters. IEW2009 will be hosted by Prof. Carlo Carraro in Venice. Mr. Tosato suggested continuing to hold the spring ETSAP workshop back-to-back to IEW. He also noted that he will look to make clearer on the IEW

website the ETSAP meeting, as numerous IEW2007 attendees would have come to the ETSAP workshop if they were aware of it.

7.3 - *Next regular ETSAP Workshops*

The next ETSAP workshop is tentatively slated for Brasilia, Brazil, November 19-23, 2007, to coincide with the NEET workshop to be held there that week. The fallback venue will otherwise be Rome, in the second half of November. The workshop after that will be held in Paris, July 3-4, 2008, back-to-back to IEW2008 (June 30 – July 2).

The Chair thanked Mr. Sato for his long years of involvement and dedication to ETSAP and his excellent work promoting and using MARKAL, which was echoed by others.

The meeting was closed at 6:45pm.