

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

**MINUTES OF THE EXECUTIVE COMMITTEE MEETING**  
*Energy Research Centre, University of Cape Town, Cape Town, South Africa*  
*Saturday, July 1 (9.00 – 12.00)*

**Participants**

***Contracting Parties' Representatives:***

Belgium	Ms. Anne Fierens
Germany	Mr. Alfred Voss
Italy	Mr. Vincenzo Cuomo
United Kingdom	Mr. Peter G. Taylor

***“Stand-ins”:***

Canada	for Mr. Hertsel Labib	Mr. Peter Taylor
Japan	for Mr. Masao Tanaka	Mr. Osamu Sato
Korea	for Mr. Jong-Whan NOH	Mr. GianCarlo Tosato
Sweden	for Ms. Eva Centeno Lopez	Mr. Erik Ahlgreen
Switzerland	for Mr. Socrates Kypreos	Mr. GianCarlo Tosato
Turkey	for Mr. Tanay Sidki Uyar	Mr. GianCarlo Tosato
United States	for Mr. Carmen Di Figlio	Mr. Barry Kapilow-Cohen

***ETSAP Representatives:***

Operating Agent/Project Head	Mr. GianCarlo Tosato, Italy
Primary Systems Coordinator	Mr. Gary Goldstein, United States

***Guests:***

Mr. Joe Decarolis	Environmental Protection Agency, United States
Mr. Maritio Gargiulo	Politecnico di Torino, Italy
Mr. Amit Kanudia	KanORS Consulting, India
Mr. Evasio Lavagno	Politecnico di Torino, Italy
Mr. Bruno Merven	Energy Research Centre, University of Cape Town, South Africa
Mr. Ken Noble	Noble-Soft Systems, Australia
Mr. Uwe Remme	Institute of Energy Economics and the Rational Use of Energy (IER), University of Stuttgart, Germany

***Not officially represented***

Australia  
 European Commission  
 Finland  
 Greece  
 Norway  
 The Netherlands

## Opening

Mr. Peter Taylor, deputy chairman of ETSAP, opened the meeting at 9.00 on behalf of the chairman, Mr. Hertsel Labib.

## 1. Quorum Count

As listed in the text of the implementing agreement, presently ETSAP has 17 Contracting Parties, requiring 9 to be represented for a Quorum. With 4 Parties represented and 7 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. Minutes of the previous Executive Committee (Attachment K1)
    - 3.1 - Results of the written procedure
    - 3.1b - Annex X, art. 7: 'Operating Agent', further specification (Attachment K4)
    - 3.2 - Contracting Parties and Participation
    - 3.3 - Communication of the new Operating Agent
  4. IEA/ETSAP Implementing Agreement
    - 4.1 - Communication from the Secretariat (Attachment K6 new)
    - 4.2 - IEA G8 Plan of Work in response to the Gleneagles Communiqué (Attachment K5 new)
    - 4.3 - Report of the Workshop
  5. Annex X (2005-2007): Global Energy Systems and Common Analyses
    - 5.1 - Report of activities (Attachment K2)
    - 5.2 - Draft final budget for 2005 (Attachment K3)
    - 5.3 - Proposals for the 2006-7 Program of work (Attachment K2)
    - 5.4 - 2006 Budget proposal (Attachment K3)
  6. Other business:
    - 6.1a - Enhanced support to IEW
    - 6.1b - Thanks from Mrs. Jackie Manne
    - 6.1c - Election of the Chairperson
    - 6.2 - Next ETSAP workshop: Stuttgart (Germany) Nov. 13-17, 2006 (or Nov. 27-Dec. 1)

### Attachments:

- K1 Final Minutes of the previous Executive Committee, held in Oxford, Friday, November 18, 2005
- K2 Annex X Activities and Program of Work
- K3 Annex X Draft Budget
- K4 new Annex X: amended text (a specification is added to art. 7, Operating Agent)
- K5 new ETSAP+5 Briefing Slides submitted to the IEA, updated (slides 7, 11-13 for consideration for presentation by the IEA as part of things being considered for their PoW at G8 St. Petersburg)
- K6 new Proposed IEA response to the Gleneagles Plan of Action, ETSAP answers to the questions of Neil Hirst /Graham Campbell (December 31, 2005)
- K7 new ETSAP+5 Briefing Note submitted to the IEA (updated text)
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### 3. *Minutes of the previous Executive Committee (Attachment K1)*

#### 3.1 - *Results of the written procedure*

At the end of April, Hertsel Labib, the ETSAP Executive Committee Chairman, sent to the ExCo delegates a letter with the results of the decision to change the Operating Agent by the written procedure:

*“Executive Committee delegates have strongly supported our proposed appointment of new Operating Agent founded by the current Project Head. We received eight positive answers and no objection. Therefore, on behalf of the Executive Committee I appoint ASATREM Srl., under the management of Mr. GianCarlo Tosato, as operating agent of ETSAP, starting May 1, 2006.”*

#### 3.1b - *Annex X, art. 7: ‘Operating Agent’, further specification*

The Operating Agent suggests adding to Annex 10, Article 7, ‘Operating Agent’, after ‘the private consulting company ASATREM srl (Italy)’ the following specification: ‘, owned and directed by the Project Head GianCarlo Tosato’. This specification makes it easier the use of Mr. Tosato’s bank account for ETSAP. The Executive Committee approves unanimously.

#### 3.2 - *Contracting Parties and Participation*

Mr. Brenden Malane mentioned earlier in the week that he is looking to both government and private support to re-engage Australia.

Mr. Martin Bauman of the University of Technology of Graz, who is currently working with TIMES, indicated during the week that he is looking for Austrian government support for ETSAP participation.

Mr. Erik Ahlgreen indicated that talks with Risoe (Dk) are more positive with respect to reengagement of Denmark, but there are funding issues and no decision has been taken yet.

A letter was received by the Project Head from Mr. Remko Ybema (ECN) last November, after the Oxford ExCo, indicating that The Netherlands will not participate in the current Annex at this time. Follow-up discussions by the Operating Agent with NOVEM indicate that they will talk with ECN about the importance of ETSAP and will see about providing funds.

Norway is reviewing their position, and will try to participate. Problem is finding an appropriate group to carry out the ETSAP program of work.

With regard to Switzerland, the Operating Agent noted that Mr. Socrates Kypreos is leaving and Mr. Leonardo Barreto, the new group leader at PSI, feels that the group is too small to continue. The Operating Agent will talk with Mr. Barreto, and Professor Voss will approach others in Switzerland as well.

Mr. Peter Taylor suggested that the situation be reviewed at the next meeting and that, if there are no progress on these fronts, the Executive Committee should write to inquire whether these countries will be withdrawing from the Implementing Agreement if not participating in an Annex.

#### 3.3 - *Communication of the new Operating Agent*

Mr. Tosato communicated that he has been offered to provide consultancy services to companies owned or linked to experts working for ETSAP. An example is the US Agency for International Development (US-AID) South East Europe Regional Energy Demand Planning (SEE-REDP) initiative, where International Resources Group (IRG) will be contracting with Tosato, but where the Operating Agent at the same time contracts with Gary Goldstein, DecisionWare, Inc. (an affiliate of IRG).

To avoid any perceived possibility of a conflict of interest between serving as Operating Agent (and contracting external experts/companies) and providing consulting services to the same experts/companies, Mr. Tosato will inform the Executive Committee of any contracted work he intends to enter into.

The Executive Committee endorsed this procedure that will give delegates the possibility to discuss any perceived problems. In this specific case, there were no objections to the SEE-REDP work.

#### **4. IEA/ETSAP Implementing Agreement**

##### *4.1 - Communication from the Secretariat*

Fridtjof Unander, the IEA Desk Officer for ETSAP, emailed apologizing for not being present. On his behalf the Operating Agent reported on the publication of the Energy Technology Perspectives (ETP) book. The book reports on analysis conducted by the IEA, supported by ETSAP, using a global instance of the MARKAL model. The book has been heralded by the IEA Committee for Energy Research and Technology (CERT), the IEA Standing Group on Long Term Co-operation (SLT) and the IEA Governing Board as a great achievement! The Governing Board was in particular very pleased with the unprecedented in-depth nature of the report and the showing “how to change the path.” Each Executive Committee member will be provided with a copy of the ETP report.

Professor Voss inquired as to whether it is the intent of the IEA to continue with the ETP, to which Mr. Tosato indicated most definitely yes, and with more people. Mr. Tosato noted that a strategy is being outlined by the IEA (Mr. Hirst and Mr. Dickson), perhaps for next year, to update the ETP for 2008, Japan, final G8 meeting. ETSAP should perhaps look closely at the report and develop ideas on how to improve analysis. The IEA is looking for funding though, as the G8 have not provided enough as of yet. ETSAP may be contacted to continue to provide more support. It was suggested that ETSAP needs to stay aware of what is going on with respect to the ETP so that opportunities to make substantive contributions are not missed.

Mr. Tosato also noted that Mr. Dickson is preparing material for input to G8 St. Petersburg summit. Among the topics under consideration are the presentation of the ETP book, a review of the IEA-G8 PoW, the possibility of developing efficiency indicators, and other activities at the IEA. It was suggested by Mr. Goldstein that perhaps ETSAP could put forward 1-3 slides to Mr. Dickson for inclusion in his presentation on the ETSAP+5 proposal (see new attachment K5).

Professor Voss raised the point of whether there might be a conflict with the ETSAP global modelling initiative (The TIMES Integrated Assessment Model (TIAM)) and ETP. Discussions in and around this topic should be held with the ETP technical staff when opportunity permits. With the added capabilities of the TIAM model (climate impact, multi-stage stochastics, etc.), perhaps the ETP database could be migrated to TIAM with ETSAP assistance and/or ETSAP could run TIAM on IEA’s behalf.

##### *4.2 - IEA G8 Plan of Work in response to the Gleneagles Communiqué – ETSAP G8+5 Proposal*

A lengthy discussion was held on ETSAP’s proposal to the IEA in support of the IEA-G8 Plan of Work to engage the so-called Plus-5 (+5) developing countries (Brazil, China, India, Mexico and South Africa) in a multi-faceted, multi-year, multi-institution capacity building undertaking involving the development of data and multi-region models by the +5. After submitting the proposal at the end of last year, a briefing note was submitted to Mr. Dickson at the IEA at his request following discussion held with Mr. Goldstein (see new attachments K6 and K7). The feedback from Mr. Dickson on the merits of the proposal was extremely encouraging, including an indication that the idea directly fits with the IEA-G8 PoW and perhaps should present the ideas to the CERT and Governing Board. However, follow-up has been sidelined by the priority and focus given the ETP publication.

ETSAP has already taken the first important steps to garner support for the proposal. With key institutions from two of the +5 – India (as represented by Reliance Industries) and South Africa (as represented by the Department of Mining and Energy, Eskom (the power company) and ERC) – to be present at the IEW in Cape Town, ETSAP drawing on its own resources invited them, a leading modeller from China (Wenying Chen, Tsinghua University) and experts from Brazil (including planners from the Ministry of Mining and Energy and EPE (the planning part of the power company)) to attend a session of the ETSAP+5 proposal at the regular ETSAP meetings (Friday, June 30, 2006). All groups there strongly endorsed the mutually beneficial nature of the proposal, and expanded upon it expressing interest in not only assembling increasingly better national modelling frameworks, but reviewing assumptions and obtaining access to the global modelling being done by IEA (ETP) and ETSAP (TIAM) as well.

Professor Voss raised the general question as to the identification of the objectives for +5 undertaking. The driving premises, as noted already, is to make use of the ETSAP tools +5, improve the quality of those activities, involve the +5 in the global modelling initiatives (both to review and use said models), and foster longer-term cooperation. Discussion at the Executive Committee meeting then centred on what to do next.

Participants discussed the issue of how much funding would be sought, and from where would be raised. The original idea of building on the Gleneagles G8 Communiqué to approach G8 countries and the World Bank as part of the IEA PoW is still alive, but needs a bigger champion within the IEA to move it forward. To fully realize what is being considered 3-6 Million Dollars and 3-5 years will be necessary. But at this time such a goal is aloof and a more incremental approach may need to be pursued.

Mr. Tosato asked what could be done if ETSAP raised \$250k. Such funding would permit ETSAP to continue to bring key +5 representatives to the ETSAP meetings, work to improve existing country models in the +5 (all but Brazil have existing models using the ETSAP Tools, and Brazil indicated a strong desire to develop such model during the meetings), and have the +5 teams review the TIAM assumptions. If started quickly and done with the context of the current Annex X progress in these areas could be included in an Appendix of the Final Report

Mr. Taylor indicated that ETSAP participants are clearly interested, but money is needed. Professor Voss mentioned that the German government had just announced a 2-Billion Euro initiative for energy research that arose from the latest summit, and that he will try to see if there might be interest there. Mr. Taylor also suggested that the Executive Committee members again look to approach their government supporters. He also suggested that letters of support be again requested from the current ETSAP partners. Such a letter was distributed by the Chair a few months ago, but the response was weak. This time however the responses would be sought as part of a package to be submitted by the Chair to Mr. Hirst at the IEA.

It was agreed that it was too soon to draft a new ETSAP annex, as suggested by Mr. Tosato. It was decided instead that, owing to the strong response from (4 of) the +5 attending the ETSAP meeting to the ETSAP+5 idea, an update will be sent to Mr. Dickson, CCing Mr. Hirst. The request for access to TIAM will be added to the “concept” piece as a further example of the win-win nature of the proposal. It was then also suggested by Mr. Goldstein that a letter be drafted on behalf of the +5 which would be submitted by the government to ETSAP supporting the idea, and these would then be included in the package sent to Mr. Hirst. Mr. Goldstein will look to draft such a letter in concert with the Operating Agent and the +5 institutions. The +5 contact points would then be responsible for seeing that said letters be submitted to the ETSAP Chair, for inclusion in the package to Mr. Hirst.

#### 4.3 - Report of the Workshop

Mr. Taylor again thanked the Energy Research Centre of the University of Cape Town for hosting the ETSAP general and Executive Committee meetings. Mr. Tosato noted once again the high participation level of ETSAP at the IEW and the large number of presentation based upon the use of the ETSAP Tools. He also noted the benefits of having input from the +5 at the ETSAP session.

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

### 5.1 - *Report of activities (Attachment K2)*

Mr. Tosato noted that the attachment summarizes the status of the PoW. The participants discussed some proposals in details and suggested new ones.

On specific points of the PoW Mr. Goldstein offered to see about setting up TIAM stochastic at GAMS and whether they can find a way to solve on a workstation and/or using parallel CPLEX on a multi-CPU (Duo) personal. Also with respect to TIAM, Mr. Tosato noted that in addition to the need for the capability to break a country out of a region there is some interest to see if it might be possible/worthwhile to have a facility to combine regions. Mr. Taylor noted that the UK Department of Trade and Industry (DTI) has been interested in the TIAM activity, and AEAT may be interested in piloting some work in this area.

Mr. Tosato noted a couple of additional capabilities for TIMES that may be worth consideration, most notably TIMES-SAGE support variable length (combined periods) time-stepped solutions, and provisions for more testing of the robustness of the solution. Mr. Goldstein mentioned that the new Benefit/Cost algorithm developed with GAMS Corporation to support MARKAL could be readily applied to TIMES if desired.

Mr. Tosato emphasized the need for further improving the documentation, in particular for TIMES and added that, though very well documented, we can do better. Mr. Goldstein again noted that to this end a TIMES Tutorial or User's Guide is sorely needed if new users are to be offered TIMES over MARKAL. With both the model and data handling systems benefiting from the NEEDS undertaking they are (about) ready and such documentation is the only missing link. It was agreed that Torino will be started on such documentation, assisted by Mr. Goldstein and others (most likely Mr. Kanudia, IER and VTT). [Note that ERC also offered to assist with this.] Contributors should be decided upon and a budget proposed with an eye towards at least a partial 1<sup>st</sup> draft for the next ETSAP meeting, when TIAM training is to take place. The exact approach and content of the new manual still needs to be determined, but it could be developed in stages moving from basics, to more advanced processing model, to the numeric representation of the resulting math, to the price formulation, etc. It should probably also reflect how data are entered via the shell(s), and include some model runs with guidelines for comparing and interpreting results.

Mr. Remme mentioned the desire to have the matrix available in VEDA-BE. Mr. Goldstein mentioned the initiative underway with EIA/GAMS/OnLocation/DWI looking at matrix viewer via the GAMS IDE/GDX utility. It was agreed that Mr. Remme would put together a description of ETSAP's needs and Mr. Goldstein would feed them into the aforementioned undertaking.

### 5.2 - *Draft final budget for 2005 (Attachment K3)*

Mr. Tosato reviewed the budget items as presented in the Attachment.

Mr. Ahlgreen noted that Sweden is looking for a reduced fee, feeling that this may bring more participants or the budget should be reduced. He said that Sweden feels that what is most important is software and documents, and that ETSAP projects are less important. Mr. Tosato noted that the participation fee was reduced between Annex VIII (the previous full Annex) and the current Annex X, and that this did not result in an increased number of participants. Mr. Cuomo agreed. Mr. Taylor noted that DTI was pleased to see (and satisfied with) the previous reduction, as an indication that ETSAP is being fiscally responsible.

Ms. Fierens noted that Belgium has the feeling that there is not enough common research. Mr. Tosato responded indicating that from the next workshop, when TIAM will be distributed (and training done) participants should be able to use this new capability and it is anticipated that common work will result. Mr. Taylor noted that with ETSAP resources limited, there was nothing others from promoting initiatives and indicating they have ideas/and the time/resources to do them.



Mr. Tosato noted that the idea is to split the budget between tools and projects. The budget allocation to the Tools is kept to a minimum since it aims at maintaining and refining them instead of developing new features, as was the case in some earlier Annexes. The common maintenance on behalf of the participants is much cheaper than a group by group approach. The rest of the budget is allocated to common studies along the request of the participants to Annex X. These studies are not tightly project oriented, but open to new contribution and ideas without tight schedule in order to enhance a research attitude. Eventually these funds are important to maintaining some independence in research.

Mr. Voss requested that Mr. Ahlgreen please inform the Ministry while the request to reduce the budget was noted, it was not the consensus. Mr. Taylor also pointed out that the Annex explicitly states that the participation fee will not be increased during the course of the current Annex.

5.3 - *Proposals for the 2006-7 Program of work (Attachment K2)*

The PoW was discussed as part of reviewing the budget, as summarized above.

Mr. Goldstein noted that each participant looking to work with the TIAM model at the next workshop should bring along an appropriate portable computer, if possible. Those not able to do so should inform the host (IER) well in advance.

5.4 - *2006 Budget proposal (Attachment K3)*

Budget allocations for 2006 were discussed under 5.2. No explicit questions were raised. The Executive Committee endorses priorities proposed by Mr. Tosato and the budget as attached.

**6. Other business**

6.1a - *Enhanced support to IEW*

On Wednesday June 28, 2006, Mr. Leo Schrattenholzer (IIASA), Mr. Joe Aldy (Resources For the Future, RFF), Mr. David Victor (Stanford University, Program for Energy and Sustainable Development), Mr. Mark Howells and Mr. Kevin Bennett (ERC), Mr. Fridtjof Unander (IEA) and Mr. Tosato discussed the support by different institutions to the IEW. This arising as a result of the news that Mr. Schrattenholzer will be leaving IIASA, and that IIASA may no longer be interested/willing to organize the IEW. All attendants stressed the important role of IEW for researchers and renewed their support to continue IEW as an independent brand, along the lines promoted so far by the late Professor Alan Manne and Mr. Schrattenholzer. Pending IIASA decision on possible ways to ensure continuity, the attendants asked Mr. Schrattenholzer to propose some options, to be discussed in the next months and to be decided before October, when the process of IEW2007 is slated to start. On behalf of ETSAP Mr. Tosato has ensured interest and support in continuing the present IEW format.

Mr. Tosato noted that as a consequence of these developments ETSAP may need to make larger contributions in the future. Mr. Voss asked whether ETSAP should perhaps look to be more involved, perhaps serving as organizer. Mr. Tosato noted the heavy representation of the ETSAP Tools being presented, and discourages such an idea being concerned that the IEW would lose its independent nature. He also noted that IIASA will continue for 1 or 2 years with organization and website, etc., so there is time to come up with alternatives. Mr. Voss wondered if RFF might be interested. It was also noted by Mr. Goldstein that there is increased interest in modelling by other NGO organization such as Environmental Defence and the Natural Resources Defence Council, and that perhaps Mr. Aldy could approach such organizations to determine if they might have such interest.

*6.1b - Letter from Jackie Manne*

Mr. Tosato read a letter he received from Jackie Manne thanking ETSAP for planting 100 trees in Israel in remembrance of her late husband Alan. Mr. Tosato replied graciously.

*6.1c - Election of the Chairperson*

Mr. Tosato had received a letter from Mr. Hertsel indicating that he was willing to continue as Chair, which he then put forward. This was seconded by Mr. Voss and Mr. Taylor, and Mr. Hertsel was confirmed. Mr. Sato indicated that Mr. Tanaka was willing to continue as Deputy Chair, which was seconded by Mr. Cuomo and Ms. Fierens and confirmed by the ExCo. The second deputy, Mr. Taylor, will be leaving the Executive Committee to take over the position currently held by Fridtjof Unander at the IEA secretariat and thereby become the new ETSAP IEA desk officer. Mr. Kypreos (through Mr. Tosato) proposed Ms. Fierens as deputy chair. Mr. Taylor seconded and the ExCo confirmed.

Mr. Taylor, who as just noted will be stepping down as he's moving to IEA from September and taking over Mr. Unander's position, noted that this was his 21<sup>st</sup> straight ETSAP meeting, and thanked everyone for the years of collaboration and friendship, as he looks forward to continued involvement with ETSAP as IEA Desk Officer. On behalf of the entire ExCo, Mr. Tosato wished him the best of success, especially as Desk Officer.

*6.2 - Next ETSAP workshop: Stuttgart (Germany) Nov. 13-17, 2006 (or Nov. 27-Dec. 1)*

The Executive Committee graciously accepted the offer of Professor Voss for the next ETSAP meeting to be hosted by IER in Stuttgart November 27 – December 1, 2006. He noted that a special visit would be arranged to the new Daimler/Chrysler museum. He will also look to organize a 1-day workshop with German modelling teams. The meeting will be held back-to-back with a NEEDS meeting scheduled for around the same time.

Mr. Taylor again thanked ERC for hosting the Executive Committee meeting and their efforts for the entire week.

The meeting was closed at 11:30.