

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

**MINUTES OF THE EXECUTIVE COMMITTEE MEETING**

*Held on Friday, December 1 (9.00 – 12.00), 2006, at the  
 Institute of Energy Economics and the Rational Use of Energy (IER) of the University,  
 Heßbrühlstraße 49a, Stuttgart- Vaihingen, Germany  
 As approved by the written procedure of February 2007*

**Participants**

***Contracting Parties' Representatives:***

Canada	Mr. Hertsel Labib
Germany	Mr. Alfred Voss
Korea	Mr. Jong-Whan NOH
Turkey	Mr. Tanay Sidki Uyar
United Kingdom	Mr. Stephen Pye

***“Stand-ins”:***

Belgium	for Ms. Anne Fierens	Mr. GianCarlo Tosato
Finland	for Mr. Sami Tuhkanen	Mr. Antti Lehtila
Japan	for Mr. Masakatsu Matsuda	Mr. Osamu Sato
Sweden	for Mr. Klaus Hammes	Mr. Antti Lehtila
Switzerland	for Mr. Socrates Kypreos	Mr. GianCarlo Tosato
United States	for Mr. Carmen Di Folio	Ms. Audrey Lee

***Contracting Parties not officially represented***

Australia  
 European Commission  
 Greece  
 Italy  
 Norway  
 The Netherlands

***ETSAP Representatives:***

Operating Agent	Mr. GianCarlo Tosato, Italy
Primary Systems Coordinator	Mr. Gary Goldstein, US
IEA Desk Officer	Mr. Peter Taylor, UK

***Guests:***

Mr. Marcus Blesl	IER, University of Stuttgart, Germany
Mr. Marizio Gargiulo	Polytechnic University of Turin (PoliTo), Italy
Mr. Poul Erik Grohnheit	RISO National Laboratory, Denmark
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
Mr. Jeff Subramoney	Department of Mineral and Energy (DME), South Africa

## Opening

Mr. Hertsel Labib, chairman of ETSAP, opened the meeting at 9.00. He thanked Professor Voss, director of IER, for hosting the Executive Committee (ExCo).

Mr. Labib welcomed Mr. Steven Pye, new UK representative, and Audrey Lee from the US. He was also notified that Sweden has appointed a new delegate, Mr. Klaus Hammes. He welcomed Mr. Peter Taylor as the new IEA desk officer for ETSAP.

## 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 5 Parties represented and 6 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. Adoption of the minutes of the ExCo held in Cape Town (Attachments L1, L1bis)
  4. IEA/ETSAP Implementing Agreement
    - 4.1 - *Communication from the Secretariat (Energy Technologies at the Cutting Edge 2007; Guidance and Tools for IEA Implementing Agreements; Attachment L2; update of IEA G8 POW, plans for ETP 2008, IEA mobility modelling (transport), and new CHP and Methane initiatives)*
    - 4.2 - *IEA-G8-5+ plan of action: NEET activities (ETP, NEET, Outreach, Attachment L3)*
  5. Annex X (2005-2007): Global Energy Systems and Common Analyses
    - 5.1 - *Report of activities (Attachment L4)*
    - 5.2 - *Draft final 2006 Budget and proposal for 2007 (Attachment L5)*
    - 5.3 - *Contracting Parties and Participation*
    - 5.4 - *2007 Participation Fee*
    - 5.5 - *2007 Program of work: possible contributions to the IEA-G8+5 POW (Att. L6, L6bis, L6ter)*
    - 5.6 - *Conditions to access the TIMES Integrated Assessment Model (Attachment L7)*
  6. Other business
    - 6.1 - *Report of the Workshop*
    - 6.2 - *Support to IEW and next joint IEW-ETSAP workshop (Stanford, June 25-29, 2007)*
    - 6.3 - *Others: ideas for annex XI*

### Attachments:

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| L1    | Final Minutes of the previous Executive Committee, held in Cape Town, Saturday, July 1, 2006       |
| L1bis | Attachments to the final minutes of the above ExCo   |
| L2    | ETSAP contribution to <i>Energy Technology on the Cutting Edge 2007</i> (3 <sup>rd</sup> draft)    |
| L3    | Mission Statement of the IEA's <i>Networks of Expertise in Energy Technology (NEET) Initiative</i> |
| L4    | 2006 Activities, report of the operating agent   |
| L5    | Draft final 2006 Budget and proposal for 2007  |
| L6    | Draft program of the VEDA-TIMES training course to be held in Beijing                              |
| L6bis | Master Plan & Study: National Energy Strategy of China   |
| L6ter | Commitment e-letters of Mrs. Wenying CHEN and Mr. Yufeng YANG                                      |
| L7    | Conditions to access the TIMES Integrated Assessment Model (ETSAP-TIAM) (first draft)              |
| L8    | First ideas for drafting next annex (2008-2010)  |
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### 3. *Adoption of the minutes of the previous Executive Committee (Att. L1 and L1bis)*

The minutes of the Cape Town Executive Committee were adopted in the text distributed before the meeting.

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

#### 4.1 - *Communication from the Secretariat (Attachments L2)*

Mr. Taylor started by mentioning that the IEA *Energy Technology on the Cutting Edge* publication is currently being prepared, and that it gives an excellent opportunity to highlight work of ETSAP to a broader audience, both within the IEA as well as the world. The deadline for submission is in a couple of weeks. Mr. Tosato indicated that he will draft a text for ETSAP's contribution and submit it to Mr. Labib, Mr. Taylor and Mr. Goldstein for comment. Mr. Taylor encouraged references to new applications of the ETSAP tools, subsequent the previous issue of the publication (see Attachment L2).

Mr. Taylor then mentioned briefly that an update to the IEA *Guidelines and Tools for IEA Implementing Agreements* is downloadable from <http://www.iea.org/W/ia/Handbook30.10.06.pdf>.

Mr. Taylor then turned to the IEA-G8 Program of Work. There are a whole range of activities underway, notably the new issue of Energy Technology Perspectives (ETP), the Networks of Expertise in Energy Technology (NEET) Initiative, the new issue of the Energy Indicators report, clean fossil technologies, etc.

He began by discussing the *ETP2008*. The Secretariat is interested in engaging Implementing Agreements in this 2<sup>nd</sup> application of the ETP. Mr. Taylor indicated that the ETP team at the IEA, lead by Mr. Gielen (to whom all ETP related inquiries are to be sent), is looking for ideas for consideration as part of the ETP2008. Mr. Goldstein suggested that examining the "cost of waiting" overlaid with other scenario could perhaps be an important theme for ETP2008. Mr. Taylor indicated that more regional detail is sought, particularly for the major large countries. Ideally the ETP regions perhaps could be broken out, but with the expected timeframe this may be difficult to do directly in the model. Therefore national and/or regional studies done using the ETSAP Tools that the ETP team could draw on would be useful, both for OECD countries and +5 (China, India, Brazil, Mexico and South Africa). Mr. Voss asked why include national studies. Mr. Taylor noted that the request is driven by the desire for the ETP to be broader in scope and enriched from other studies, and that existing studies are sought first. Mr. Voss indicated that national representatives could make available for the ETP their national studies, but contributions need to use harmonized assumptions. Mr. Taylor acknowledges that ideally new studies with ETP2008 assumptions are sought. It was suggested that perhaps a specific request along these lines could be sent to the Chair from the IEA, which Mr. Taylor will look into. With respect to timing, runs will need to be completed by the end of 2007, or earlier, in order for publication in early 2008. Thus it was suggested that the ETP assumptions be set early enough to permit coordinated ETSAP national model runs, and that the initial ETP results be vetted with the associated ETSAP partners. Mr. Taylor indicated that this was a worthwhile idea that he'll bring to Mr. Gielen. Also, with the IEA turning to the member countries for support for ETP it was suggested that perhaps an ETSAP specific line-item to support doing this additional work be included in the request.

Mr. Taylor then briefly turned to other modelling activities.

- The IEA is looking at *available CHP-specific models* to be used in ETP2008 and for outreach activities. Mr. Voss asked about whether this was an issue of putting data together on CHP or better representation in ETP. Mr. Taylor indicated the former, but wondered about how other models handle CHP. Mr. Voss indicated that IER could provide some input. Mr. Grohnheit mentioned Ben Morrell's model. The source code of this open source GAMS model and papers can be found at [www.Balmorel.com](http://www.Balmorel.com). Mr. Tosato and Prof. Lavagno indicated that local models have such detail. They suggested seeing the Annex 22/33 of Energy Conservation in Buildings and Community Systems (Advanced Local Energy Planning, ALEP) for examples. Mr. Taylor will talk with Mr. Tom Kerr to make sure he is aware of these.

- A flyer on *mobility modelling for transport* was distributed. Mr. Taylor suggested interested parties contact the group.
- Mr. Taylor then mentioned that *non-CO2 GHG modelling* is also over interest, and the IEA is trying to drum up funding to include CH4 within IEA models, notably ETP2008. The IEA is looking to engage countries in more CH4 mitigation, not just CO2. Mr. Tom Kerr of the US-EPA is the contact point on this. Mr. Goldstein noted that CH4 is handled in the ETSAP-TIAM global model, to which Mr. Taylor inquired about how adaptable that modelling is. Mr. Loulou indicated that the CH4 subsystem is modelled based upon the US-EPA data distributed through the EMF, adapted for TIMES as mitigation cost curves (which was a big job). The formulation could be made available and should be readily adaptable for MARKAL for ETP2008.

Mr. Tosato noted that ETSAP received a letter from Neil Hurst, indicating that for ETP2008 the IEA is looking for 600k€. He indicated that there is no possibility of an ETSAP direct financial contribution, but ETSAP has capabilities, data and review skills that could benefit ETP, and could answer specific questions such as modelling methane gases. The comparison between the ETP request for funds and ETSAP-TIAM budget makes it apparent how much ETSAP is doing with very little resources. Mr. Voss asked whether the IEA felt that it would realistically be able to raise the 600k€ for ETP2008. Mr. Taylor indicated that the ETP2008 has stimulated the most interest of any of the IEA-G8 initiatives, and it is expected that the necessary funds should be raised.

Mr. Voss continued the discussion of how ETSAP could support ETP2008. He also raised the point that ETSAP contributes to improving the ETP database while also developing TIAM, and asks whether maintaining two model platforms is in the best interest of both institutions. Mr. Goldstein pointed out that ETP gets much of its technology data directly from IEA databanks, and that IEA-ETP and ETSAP-TIAM may be used to examine different issues. Mr. Loulou noted that important modelling improvements are only in TIMES (e.g., endogenous climate equations, multi-gas, and particularly the multi-stage stochastics that allows the evaluation of low probability-high risk scenarios similarly to the Stern report). He also noted that there have been, and there will be, quite a number of data exchanges with Mr. Gielen: ETSAP-TIAM used ETP reports (e.g., H2, CCS), and ETSAP could provide CH4. As part of enhancing the cooperation and making better use of scarce resources, Mr. Tosato will mention in the letter to Mr. Hurst that consideration should perhaps be given to a medium term objective of using a single platform for ETSAP's ongoing research and ETP's regular publications, with a shorter term objective of harmonising the "databases." With ETSAP's primary mandate being to continually evolve the state-of-the-art of its modelling tools it is in ETP's long-term interest to be able to take advantage of these developments as they occur.

#### 4.2 - IEA-G8-5+ plan of action: NEET activities (Attachment L3)

Mr. Tosato then turned the discussion to the IEA Networks of Expertise in Energy Technology (NEET) Initiative. Mr. Voss asked what NEET's goals are. Mr. Taylor indicated that NEET promotes the IAs in the +5, with a philosophy of engaging the +5 in IEA activities and IAs. Practically it promotes contacts organising workshops in the +5 countries, invites +5 experts to come to IAs meetings as observer or join the IA activities. The NEET Mission Statement is included as Attachment L3. ETSAP is in close contact with the IEA-NEET team. NEET has requested that ETSAP participates in their next workshop, Feb 20-22 in Johannesburg, by giving presentations on ETSAP tools and activities. Mr. Tosato will make the presentation on behalf of ETSAP. NEET will be paying the travel expenses. Mr. Taylor noted that where +5 and IA have mutual interests, NEET can be a facilitator. Further ETSAP contacts relate to the organisation in 2007 of next NEET workshops in China and Brazil. ETSAP's vision for and activities in the +5, most notably the possibility of an ETSAP+5 Annex to the IA, seem to match up ideally with the objectives of NEET, but the question remains how to take advantage of this synergy.

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

### 5.1 - *Report of activities (Attachment L4)*

Mr. Tosato circulates the report of activities carried out in 2006 (Attachment L4). The transition to the new operating agent in May 2006 had no negative effects on the continuity of the program.

The following Annex X deliverables are advancing as expected:

- (a) Maintenance and improvement of an international capability for the analysis of energy systems markets / technologies and their future contribution to economic sustainability, energy security, environment protection, global climate mitigation and technical feasibility;
- (b) Implementation of a multi-region global ETSAP TIMES model;
- (c) The report of ETSAP participation with the above global multi-regional TIMES model to the Energy Modelling Forum N. 22 “*Climate Policy Scenarios for Stabilization and in Transition*”;
- (f) Maintenance, enhancement and development of ETSAP common Tools for energy systems analysis, to be distributed to the Participants, and
- (g) Periodic reports on workshops or seminars, and on analytical studies undertaken in connection with the Task, including semi-annual publication of the ETSAP newsletter.

The procedure to extract a country from a region of ETSAP-TIAM and add it as 16<sup>th</sup> region (article no.4, deliverable (d)) has some delay; special attention will be given to develop it in the first months of 2007 and test it before next workshop. The deliverable (e) – A list-server will be established on the ETSAP website to better support the global community of ETSAP Tool users – was not able to be addressed so far due to the extra resources that needed to be devoted to development of the users’ interfaces. Since the implementation of this feature is deemed less urgent than improving the base ETSAP tools it will be most probably shifted to a possible Annex XI activity. The preparation of the final report will be ordered during the summer, after the next ETSAP workshop.

For the sake of transparency, Mr. Tosato declares that his new consulting company was subcontracted by experts that receive contracts from ETSAP. He carried out activities in Portugal and South East Europe subcontracted by Mr. Gary Goldstein for US\$19,910 during 2006. Furthermore he invoiced to, and received from Mr. Richard Loulou 13,000€ as repayment of SAGE related consultancy services carried out in 2001-2.

### 5.2 - *Draft final 2006 Budget and proposal for 2007 (Attachment L5)*

Mr. Tosato presents the update budgeting spreadsheets. Towards the end of the year several 2006 fees arrived, for a total of 10. Thanks to the efforts of Mr. Grohnheit, the eleventh contribution arrived from Denmark. At the end of the year it is also expected that the 2004 US contribution will be received. A revision of the accounts of the previous operating agent at the transition to the new operating agent revealed an unexpected surplus of about 30k€ over the previous budgets. Due to the co-operation of the organisers, ERC-UCT and IER, also the expenditures for the organization of the ETSAP workshop were considerably lower than initially assumed. Therefore the 2006 budget has a positive balance of about 60k€.

The base budget for 2007 assumes that 10 contracting parties pay their fees. This will cover the 2007 program of work (see below, agenda item 5.5) and leave about 30k€ available to cover the first months of 2008, in case the approval of Annex XI is delayed. With a more optimistic but still realistic view – i.e. assuming that 11 paying participants pay the 2007 fees, the US pays the 2005 dues and Italy pays the 2006 dues – additional resources for 60k€ will be available. Possible additional voluntary contributions, which ETSAP is seeking, will be included in the budget when announced.

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.

While the desire and capabilities are most certainly there, the resources to enable ETSAP to most notably fully contribute to ETP2008 and actively engage the Plus-5 along the lines indicated by the IEA are just not. Although he acknowledged that it is difficult to ask for more, he encouraged more participants to follow the German lead and to allocate additional voluntary contributions to ETSAP, perhaps earmarked directly to ETSAP contribution to the IEA-G8+5 POW. After the success of the training course just finished, such contributions could be used to organize new training course where this is most requested. Mr. Goldstein suggested specifically requesting in the response to Mr. Hurst that the IEA ask for funding to support ETSAP's envisioned contributions on top of what the IEA-ETP team need themselves, perhaps 50k€ for ETP2008 to address the ETP2008 ETSAP support activities mentioned earlier. Other contributions could be made available from the NEET initiative if the proposal to carry out a joint workshop in Brazil materialises.

### 5.3 - *Contracting Parties and Participation*

Mr. Labib is glad to inform the participants that accepting the invitation of the Executive Committee held in Oxford on November 18, 2005 Denmark has resumed full participation in ETSAP as of 2006. Mr. Taylor noted that since Denmark is in the IA just a letter to IEA on participation in this Annex is required. As soon as the legal procedure is completed, Denmark will be added to Annex X participants list and will be fully represented at next Executive Committee. The fact that Denmark resumed full participation after several years of indirect contacts re-enforces the merits of continuing discussions with the initial signatories of the Implementing Agreement and new potential contracting parties without time pressure. It was noted that active MARKAL-TIMES user groups exist in the Netherland, Australia, Norway, Spain and Austria, all countries that originally signed the Implementing Agreement. Among other OECD countries, France and Portugal with their active use of the ETSAP tools and strong user groups are candidates for joining ETSAP. Mr. Labib invites all Executive Committee participants to renew their efforts and increase the number of contracting parties.

The Swiss Contracting party, Paul Scherrer Institute, has informed that since Mr. Socrates Kypreos will go in partial employment during 2007, the group headed by Mr. Leonardo Barreto will face problems continuing to represent Switzerland at ETSAP. Mr. Tosato suggests exploring alternative representations before proceeding with any legal arrangements concerning PSI withdrawal from Annex X.

Mr. Uyar then requested that IEA sends a letter to the Turkish ministry suggesting participation and perhaps changing the Contracting Party. Mr. Taylor indicated that the IEA can not do that, as the letter needs to come from the country. Mr. Tosato agreed to send the most recent minutes, but reinforced that requests to change the Contracting Party must come from government.

Mr. Subramoney then asked about ETSAP participation by non-OECD countries. He noted that the Department of Mineral and Energy (DME) of South Africa was looking to enhance their in-house modeling capabilities and asked about access to the ETSAP Tools. He indicated that they are looking to create a dedicated energy planning branch, and is investigating which models to turn to and training arrangements. Mr. Goldstein indicated that it was not necessary to be part of the ETSAP IA to gain access to the ETSAP tools, but there were advantages. Mr. Tosato elaborated that full participation in ETSAP has numerous benefits, notably the network of experts, ANSWER/VEDA small group software is provided free of charge, TIAM is available, and a say in the ETSAP budget. Mr. Subramoney inquired as to what is involved to participate. Mr. Taylor indicated that the government would need to sign the IA as the Contracting Party, but could then designate representative to carry out ETSAP program work on its behalf. It was then also pointed out that the Executive Committee has flexibility to set fee for new parties, and that perhaps +5 government participation would not be subject to the same fee as the IEA member countries.

In view of the strong IEA commitment towards the +5 countries (China, India, Brazil, Mexico, South Africa) , and the expanding ETSAP contribution, Mr. Labib encourages the efforts of the IEA secretariat to identify possible ETSAP contracting parties in the +5 countries and other non-OECD countries. The Executive Committee openly welcomes organizations of the +5 countries and other non-OECD countries to join ETSAP as new contracting parties.

5.4 - 2007 Participation Fee

Mr. Tosato proposed to continue with the current fee of 20k€ per participant for the year 2007. The Executive Committee approved.

5.5 - 2007 Program of work: possible contributions to the IEA-G8+5 POW  
(Attachments L6, L6 bis and L6 ter)

The program of work for 2007 mainly follows the guidelines of the previous years with the goal of reaching the objectives of Annex X. According to the budget allocation (see above, agenda item 5.2), about 30% is used for base activities (management, workshop, website and NEWS-letter, final report), about 30% for ETSAP-TIAM and the contribution to EMF-22 and about 20% for the maintenance and improvement of the tools. The Belgian delegate stresses the importance of this part of the program. She noted that in 2005 a Belgian model was not available due to their decision to migrate from MARKAL to TIMES, where in 2006 the TIMES-Belgium model could not contribute to the national “Energy 2030” study due to small tool/model errors. Finding domestic applications for the ETSAP tools is essential in order to ensure that Belgium continues to participate in ETSAP.

In 2007 for the first time the contribution of ETSAP to the IEA-G8+5 POW is reflected explicitly in the program of work and the budget (nearly than 20%). It takes advantage of existing co-operation networks and previous work. In 2005 the project head and the primary system coordinator spent considerable time interacting with the IEA secretariat and contributed to the development of the IEA-G8+5 POW with possible ETSAP objectives. In 2006 ETSAP contributed to the IEA-G8+5 POW by paying the expenses of Mrs. Chen (China) and Mr. Hollauer (Brazil) to participate in the IEW2006 in Cape Town and devoting a special session of the ETSAP meeting to the analysis of energy systems in the +5 countries (being reflected in the Newsletter no. 2). The degree of cooperation and the objectives of our program of work for the +5 are different by country and group.

China

It is proposed to collaborate with the Tsinghua University group headed by Prof. Wenying CHEN and the Energy Research Institute group, headed by Dr. Yufeng YANG.

Mrs. Chen is China’s leading MARKAL/MACRO expert. She contributed to the +5 session held in Cape Town. After an appropriate training on VEDA-TIMES and ETSAP-TIAM, she could improve the China representation in the ETSAP-TIAM (which may also benefit ETP2008), present preliminary results at the next IEW2007 and final runs at the following workshop. The benefit of this collaboration is the improvement of ETSAP-TIAM and its diffusion through a well known international expert. The cost of this cooperation is the training course in Beijing (half) and the travel expenses to the 2007 ETSAP workshops (the 1<sup>st</sup> coinciding with the IEW2007).

Mr. Tosato then indicated that at the beginning of November, through the IEA (Mr. Gielen), he had received a letter from Mr. Yang – Deputy Director for Energy System and Market Analysis Center in Energy Research Institute (ERI) of the National Development and Reform Commission of P. R. China (NDRC) – indicating that Mr. Yang had been assigned the responsibility for building a 4-region model to look at China energy scenarios (Attachment L6 bis). When visiting China mid-November, Prof. Lavagno met with Mr. Yang and discussed ways to contribute to the study in the relatively short time frame assigned to his multi-institution group (model building and first runs by the summer, first results are expected before the end of 2007, but not a full analysis). Mr. Yang sent a request to ETSAP for VEDA-TIMES software, training in February and support to the team in building and calibration of the model. The benefit of supporting ERI’s group is the diffusion of the methodology in the largest +5 country, and the use of an improved and quantitative methodology in the preparation of next Chinese energy strategy. The cost could turn out to be zero.

Both experts have endorsed the ETSAP China collaboration proposal (attachment L6 ter). Mr. Tosato proposed to offer to train the two teams together at a workshop on VEDA-TIMES and ETSAP-TIAM in Beijing (Attachment L6). In fact, training both teams together with side sessions keeps the cost down. The Executive Committee endorsed the proposal, authorises its inclusion in the 2007 program of work and the allocation of 20k€, as shown in the 2007 base budget. Since ERI expects more funding from the government and Energy Foundation for next year, additional ETSAP support is not foreseen.

### India

The 2007 program of work does not foresee any direct activity related to India. However Prof. P. R. Shukla – head of the Indian Institute of Management, Ahmedabad, IIMA – in cooperation with Dr. Kanudia, participates to the EC project TOCSIN (Technology-Oriented Cooperation and Strategies in India and China: reinforcing the EU dialogue with Developing Countries on Climate Change Mitigation; 2007-8). In this framework they will review the India region of ETSAP-TIAM and make available global scenario from an Indian perspective.

### South Africa

Considering the strength of the modelling team at Energy Research Centre of the University of Cape Town (ERC-UCT) and the expertise in the use of ETSAP tools, Mr. Tosato has invited Mr. Merven to attend the Stuttgart training course on VEDA-TIMES and ETSAP-TIAM. The 2007 program of work proposes to support the ERC-UCT in the preparation of a new South African TIMES model compatible with ETSAP-TIAM and its Africa region, and to test of the “country out – region in” procedure and the preparation of scenario with ETSAP-TIAM from Africa and South Africa perspectives. Delegates endorse this proposal and authorises Mr. Tosato to agree the corresponding contract with ERC-UCT at the NEET workshop (Johannesburg, February 20-22, 2007), within the limits of the special budget allocation agreed upon (see above, agenda item 5.2).

### Brazil

Both IER and Mr. Goldstein have been in contact with the Brazil Ministry of Mines and Energy (MME). The interest of MME and other Brazilian organizations in using ETSAP Tools is high, not just for G8+5 related activities but for their national capability. As a result, Brazilian organizations have the availability of experts already trained in the use of ETSAP tools and even models. Contacts with the MME are underway about setting up a two week training seminar soon. Mr. Voss then raised the question of whether ETSAP budget should go towards this. He expressed the view that before ETSAP spends money in this area there should be a group that has the mandate and funds. Before including this in the 2007 program of work, it is decided to wait more commitment from Brazil and additional funding for ETSAP, maybe in connection with the idea of holding next fall ETSAP workshop in Brazil jointly with IEA-NEET.

### Mexico

Cooperation with Mexico looks premature. The IEA-NEET mission to Mexico has established first contacts with the Mexican administration. More contacts will be made available, including reference points for energy systems analysis modelling and scenario studies, as soon as the new administration will start being operational.

Summarising, delegates were generally favourable towards including in the program of work activities in the +5 countries related to the IEA-G8-POW, as long as the restrictions of the ETSAP budget are taken into account. Mr. Voss suggested that ETSAP money should be no more than “seed money”, to be provided only to groups that have other funding sources and ensure continuity after the initial support. The EC delegate, who could not attend due to conflicting commitments, has indicated by written communication that “concerning the potential financial contribution from the ETSAP IEA Implementing Agreement to promote energy analysis in China, India, Brazil, South Africa and Mexico, the EC is favourable to international cooperation; he feels that around 30% of ETSAP budget could be dedicated to such cooperation.”

Some delegates asked about the potential contribution to ETP of this part of program of work. Mr. Taylor repeated that only studies completed by the end 2007 would contribute to ETP 2008. Without appropriate capability in place now, the ETSAP program of work capacity building and model improvements activities in the 5 should be able to benefit ETP2010, where it is envisioned that the model representation of the +5 countries needs to be expanded and additional countries analysed separately. Mr. Taylor looked to clarify that there are two related but different objectives under IEA G8+5 Programme of Work (PoW), notably:

- to engage the +5 in IEA Implementing Agreements for mutual benefit – the focus of NEET, and
- to improve the ETP analysis.

The program proposed by ETSAP has the potential of substantively contributing to both.

Mr. Goldstein noted that this new additional part of the 2007 program of work has the prospect of multiple benefits to all parties: ETSAP and its member countries/group, as well as IEA ETP and NEET. Since ETSAP funds can cover far less activities than possible and beneficial, both ETP and NEET could gain increasing benefits from providing ETSAP with additional funds targeted to training more groups and organising experiences exchange workshops, to supporting national model developments and scenario analyses, and to providing the initial copies of the proprietary software (GAMS and the expensive solvers in particular). An ETSAP Project License might help new institutions to get started. Mr. Goldstein will draft a specific proposal.

#### 5.6 - *Conditions to access the TIMES Integrated Assessment Model (Attachment L5)*

The Operating Agent has received a request from US-EPA through the US-DOE (ETSAP Contracting Party) indicating that they would like to have access to TIAM. Other requests are expected. Eventually, ETSAP-TIAM has to be made available to all interested Contracting Parties, according to Annex X.

Mr. Tosato has collected the opinion of ETSAP experts in a first draft paper (Attachment L7) that explains what ETSAP-TIAM is and what issues are involved with its distribution. Mr. Labib invites all delegates and ETSAP experts to contribute to understanding the issues and formulating ideas for defining the ETSAP-TIAM distribution policy. The Belgian delegate has no in principle objections to opening up the use of ETSAP-TIAM to other groups.

Provisionally Mr. Tosato is authorised to answer the US-EPA’s request and inform the US delegate, Mr. Di Figlio that ETSAP is available to present the model to EPA and discuss conditions to make it available. The actual availability is pending the next Executive Committee. It was decided that other requests will be handled in a similar manner.

## 6. *Other business*

### 6.1 - *Report of the Workshop*

Mr. Tosato took note of the successful VEDA-TIMES and ETSAP-TIAM training, which had the VEDA-TIMES system up and running on some 35 computers. He noted how very well attended the workshop was, with nearly 60 participants at times. He attributed this to IER’s very good reputation, combined with the heightened interest in the new ETSAP tools. Mr. Loulou dubbed the workshop a big success, and one of the

better ones over the years. He felt that this was partially a result of taking more time for the ETSAP activities, which he'd like to see more of. He'd encourage more serious presentations and training at subsequent workshops. Mr. Noble called this workshop a momentum builder that should be kept up. Mr. Pye indicated that he found this 1<sup>st</sup> workshop (for him) very useful, particularly the hands-on TIMES/VEDA sessions. He also noted that many other workshop participants felt the same. Mr. Grohnheit indicated that the workshop was far more useful than he expected, which were low due to only a short 6-lines on the website. He indicated that he needed more to inform the DEA about the program and perhaps get their interest in attending, or hosting.

Mr. Labib and Mr. Tosato again thanked IER for hosting and acknowledged the excellent job by IER accommodating the overflow crowd at short notice. Mr. Voss also indicated that IER was surprised by the number of attendees. He noted that there was no registration procedure, but ETSAP might want to get an "intention to participate" email or web registration in the future. Delegates and guests concurred with Mr. Goldstein and Mr. Loulou that the long and focused sessions were part of the reason for the success of this workshop and suggest that holding ETSAP workshops jointly with IEW should not reduce the quality (and time) of the ETSAP specific sessions. Mr. Tosato will take care that at the next joint workshop at least two full days are reserved to the ETSAP specific sessions and that enough attention is given to training.

### 6.2 - Support to IEW and next joint IEW-ETSAP workshop: Stanford, June 25-29, 2007

Mr. Tosato noted that IIASA will not be supporting the IEW in future, and the IEW2007 will be organized by Leo Schrattenholzer and Joseph Aldy. The Steering Committee includes also Mr. Fatih Birol (IEA), Mr. Carlo Carraro (FEEM), Mr. H.H. Rogner (IAEA), Mr. David Victor (PESD), Mr. John Weyant (Stanford University, EMF), and Mr. GianCarlo Tosato (ETSAP). ETSAP allocates 10k€ to support the IEW in 2007.

Mr. Tosato announced that next ETSAP workshop will be held in Stanford, on June 28-29 (possibly 30) immediately after IEW2007 (June 25-27). For more information delegates can visit the IEW web site at "[http://www.iiasa.ac.at/Research/ECS/IEW2007/index\\_1stannouncement.html](http://www.iiasa.ac.at/Research/ECS/IEW2007/index_1stannouncement.html)". IEW2008 should be held at the IEA headquarters in Paris. Mr. Loulou suggested that the next workshops be planned as a full five days. Mr. Goldstein suggested that perhaps ETSAP should plan on conducting a training day, or two, at each non-IEW workshop. Mr. Tosato raised the possibility of holding the Executive Committee meeting the afternoon that the IEW finishes so that some of the IEA principles could be invited.

Mr. Grohnheit noted that it may be possible to hold the fall meeting in Copenhagen, perhaps along with an EC-RES2020 project meeting. The Danish Energy Agency would need to be involved, so setting up the workshop needs an official connection with the Executive Committee, Operating Agent or Desk Officer. Mr. Uyar noted that it had not been since 1998 that ETSAP went to Turkey and offered to host. Mr. Voss indicated that there also appears to be an offer for the meeting to be hosted in Brazil. Mr. Goldstein suggested that NEET is looking to organize a meeting in the fall in Brazil and that it might be ideal to coordinate the workshop with a NEET program.

### 6.3 - Others: ideas for next annex (Attachment L8)

Mr. Tosato will distribute a draft with initial ideas for the next Annex. Early topics for consideration might include a specific focus on +5, common studies for policy analyses in coordination with the IEA secretariat in support of ETP2010, collaboration among contracting parties for improving national analyses, further development of ETSAP-TIAM and ensuring it is properly used jointly with other organizations, the use of ETSAP tools in neighbouring fields. Delegates are kindly requested to react to the first ideas and to suggest new ones. They will be collected by Mr. Tosato and included in the draft Annex XI to be submitted to delegates before next Executive Committee.

The meeting was closed at 12:00.