

FINAL MINUTES OF THE 90TH EXECUTIVE COMMITTEE MEETING

Date: Thursday, June 15, 2023 (09:00 - 12.00 MDT)
 Venue: Green Center, Colorado School of Mines, 924 16th St., Golden, Colorado 80401, USA.
 Online via zoom
 Contacts: Kari Espegren, (kari.esepgren@ife.no), Brian Ó Gallachóir (b.ogallachoir@ucc.ie),
 George Giannakidis (ggiannakidis.gg@gmail.com)

Table 1: Participants

N.	Country	Participant	Delegate	Attended	Stand-ins
1	Australia	CSIRO	Mr. Luke REEDMAN	Yes	James Foster
2	Belgium	VITO/SPW/Brussels	Mr. Frank Meinke-Hubeny	Yes	Pieter
3	Denmark	ENS	Mr. Kristoffer Steen Andersen	Yes	
4	Finland	VTT/Business Finland	Jussi Mäkelä	Yes	Tiina Koljonen, Vice Chair
5	France	ADEME/EDMP/ DGEMPEDAD	Mr. Emmanuel Combet Ms Nadia Maïzi	Yes	Sandrine Seloisse
6	Germany	IER	Mr. Markus BLESL, Vice chair	Yes	
7	Greece	CRES	Mr. Philip Siakkis	NO	
8	Italy	ENEA	Ms. Maria Gaeta	NO	
9	Ireland	SEAI	Mr. Brian Ó GALLACHÓIR, Chair	Yes	
10	Japan	IEEJ	Mr. Yuhji MATSUO	Yes	Seiya Endo
11	Kazakhstan	NURIS		NO	
12	Korea	KEA	Mr. Chang Seung-chan	Yes	
13	Netherlands	TNO	Mr. Bob van der ZWAAN	NO	
14	New Zealand	EECA	Mr. Vincent Smart	Yes	
15	Norway	IFE	Ms. Kari Aamodt ESPEGREN	Yes	
16	Russia			-	
17	Spain	CIEMAT	Ms. Yolanda Lechón	NO	
18	Sweden	STEM	Ms. Josefin THORESSON	Yes	Anna Krook-Riekola
19	Switzerland	PSI	Ms. Anne-Kathrin FAUST	Yes	Tom Kober
20	UK	BEIS	Barry-Jon De Souza	Yes	Paul Dodds (1 st hour)
21	US	DOE	Sauleh Siddiqui	Yes	
22	Sponsor	ENEL Foundation	Mr. Carlo PAPA	NO	

o OFFICERS and Guests

Antti Lehtila	VTT, Finland	Amit Kanudia	Kanors
Pernille Seljom	IFE	Gary Goldstein	DecisionWare
Olexandr Balyk	Columbia Univ., USA	Kenneth Karlsson	Denmark
Christoph Jessen	FZJ, Germany	Kathleen Vaillancourt	ESMIA
James Glynn	Columbia University	George Giannakidis	ETSAP Project Head
Uwe Remme	IEA	Jumi Park	Korea Energy Agency
Maurizio Gargiulo	e4sma	George Giannakidis	ETSAP Project Head
Roman Podoletz	National Academy of Sciences, Ukraine		

ANNEX XVI (2023-2025):
ALIGNING ENERGY SECURITY WITH ZERO EMISSIONS ENERGY SYSTEMS



90TH EXECUTIVE COMMITTEE MEETING

AGENDA

No.	ITEM	DOCS
1	QUORUM COUNT	
2	ADOPTION OF THE AGENDA	
3	MINUTES OF THE 89TH EXECUTIVE COMMITTEE	X1
	3.1 <i>Final Minutes of the 89th Executive Committee</i>	
	3.2 <i>Matters arising</i>	
	3.2a <i>Voting and scores: ETSAP project proposals P02 and P09</i>	
4	IEA-ETSAP IMPLEMENTING AGREEMENT	
	4.1 <i>Communication from the Secretariat</i>	X2
	4.2 <i>ETSAP Participation and Outreach activities</i>	
5	ANNEX XV (2020-2022): ENERGY SYSTEMS AND SUSTAINABLE DEVELOPMENT GOALS	
	5.1 <i>Economy and audit 2022</i>	X3
	5.2 <i>Annual report 2022</i>	
6	ANNEX XVI (2023-2025): ALIGNING ENERGY SECURITY WITH ZERO EMISSIONS ENERGY SYSTEMS	
	6.1 <i>Short status report from Operating Agent</i>	X4
	6.2 <i>Budget and Economy 2023</i>	X5
	6.3 <i>Status ongoing ETSAP funded Projects</i>	X6
7	OTHER BUSINESS	
	7.1 <i>91st ExCo meeting (online)</i>	
	7.2 <i>Other meetings:</i>	
	a) b) <i>ETSAP winter WS and 92nd ExCo meeting: Italy</i>	
	7.3 <i>AOB</i>	

Attachments

X1 Minutes and Action list from the 89th ExCo meeting, March 1, 2023

X2 Communication from the Secretariat

X3 Economy and audit 2022

X4 Short status report from Operating Agent

X5 Budget and Economy 2023

X6 Status reports: ongoing ETSAP funded Projects

The Chair opened the meeting and thanked Colorado School of Mines for hosting our meeting.

1. QUORUM COUNT

Quorum was 12. There are 15 participants present, so there is quorum.

2. ADOPTION OF AGENDA

The following topics were added in the AOB section of the agenda:

- Gary Goldstein will update the ExCo on the license pricing changes of GAMS
- Kari Espegren will inform on possible changes regarding the Operating Agent
- A vote for the ExCo Chair and Vice-Chairs will take place.

Anna requested a discussion on collaboration with other TCPs. Brian confirmed that this topic would be part of the discussion in agenda point 4.2 on ETSAP participation and outreach activities.

With these additions the ExCo adopted the agenda.

3. MINUTES OF THE 89TH EXECUTIVE COMMITTEE

3.1 Minutes of the 89th Executive Committee - (Attachment X1)

The ExCo adopted the minutes.

3.2 Matters arising

The Chair suggested that regarding the website maintenance budget is re-instated to the 10k Euro level as was in 2022, and that the ExCo discuss on changes for the following year in the next ExCo meeting. The proposal was adopted by the ExCo.

3.2a Voting and scores: ETSAP project proposals P02 and P09

Following the decision of the 89th ExCo, the ExCo undertook renewed voting for the two projects P02 and P09. KanORS withdrew P09 so proposal P02 (the free VEDA for students/academic use) remained for the voting. Amit Kanudia briefly presented Veda-Online and the project P02 with Veda-Online free for students. The ExCo members voted on P02, which secured an overall score of 74 (which is above the required threshold) and the ExCo agreed this project will be funded.

Olex mentioned that it is important to make the users of VEDA online aware of the license conditions of TIMES. It is also important to inform how students shall acknowledged Kanors, ETSAP and GAMS. The ExCo agreed to develop a standard acknowledgement to ETSAP/KANORS/GAMS to be used by the students using the service. The models that are created with VEDA online needs to be open, have a 3 GB size limit and will use the NEOS server.

The ExCo had a further discussion on the definition of the voting criteria, and it was proposed to clearly define Participation and, in addition, that Innovation could include technology and how we use the models. The ExCo agreed that draft definitions of all the criteria will be shared before the next ExCo meeting to discuss and agree. When agreed upon the description of the different criteria, this description will be added on the voting spreadsheet according to the ExCo decision.

Kathleen mentioned that we are lacking communication marketing to promote TIMES and make people aware of the functionalities of the model.

The ExCo also discussed progress on the action list agreed at the 89th ExCo as summarized in the following table.

Action List from 89 th ExCo Meeting	Owner
If there is a delay in the meeting documents, the ExCo will be informed by e-mail.	Ongoing - Brian
Support existing ExCo members and engage with interested parties seeking to become Contracting Parties	Ongoing - George/Brian/Kari
Seek to coordinate with IEA on joint training workshops for IEA Association Countries	Ongoing - George / Uwe
Extend suspension of Russian Federation from participating in ETSAP TCP activities until there is a change in the circumstances that resulted in the suspension	Ongoing – ExCo
Include clear definitions of the selection criteria should be incorporated into the project selection score sheet	George
Organise repeat voting in the 90 th ExCo for projects that failed to meet the threshold for funding in the 88 th ExCo, limited to project proposals that were close to (but below) reaching the overall threshold), namely 1. P09 VEDA Online for ETSAP Contracting Parties (Score 68.7) 2. P02 Free online VEDA-TIMES Platform for Students (Score 67.4)	Done - George
ETSAP will participate in IETS TCP <i>Energy Future in Industry</i> conference and present on the topic of “The role of industry in energy systems” on May 9- 11th of May in Gothenburg	Done – Kari and Kathleen participated
Reserve €60k for two projects to be voted on in 90 th ExCo	Done - Kari
Transfer €160k from 2022 to 2023 ETSAP budget	Done - Kari
Send updates on 2022 activities to Kathleen for inclusion in ETSAP 2022 annual report	Some CPs have still not contributed and were provided one more week.
Allocate ~€13k to enable Springer to make ETSAP book <i>Energy Systems Models and Sustainable Development Goals</i> open-access	To be done - Kari
Send proposed contributions for chapters for forthcoming ETSAP book to Maryse Labriet at maryse.labriet@gmail.com	Done
ETSAP-TIAM group to provide specific suggestions to 90 th ExCo related to the gate-keeper role and how wider improvement to ETSAP-TIAM can be maintained through project proposals	Ongoing - Markus
Send and follow up for the invoices for the fees of 2023	Ongoing - Kari/Linda
Send doodle for the 90 th ExCo meeting	Done - Kari
Follow up with IEW 2023 and Colorado School of Mines in order to arrange the ETSAP summer WS and ExCo in Colorado	Done - Kari
Continue with ETSAP webinar series – ExCo members to encourage participation and to propose webinar topics to George.	Ongoing – George / Paul / ETSAP CP

4 IEA-ETSAP IMPLEMENTING AGREEMENT

4.2 Communication from the Secretariat (Attachment X2)

Uwe Remme updated the ExCo on the activities of the secretariat. Recent publications include a report on clean technology manufacturing supply chains and hydrogen production technologies. The IEA medium term strategy of Research and Energy technology 2023-27 is currently being updated. The task force will present recommendations to CERT in the October meeting. Discussions are ongoing with different TCPs and Working parties.

The Chair added that ETSAP will be happy to participate in the process if deemed useful.

Reports to be published by IEA include the Climate Report in September, a report on Latin America in November and the WEO in October-November.

The Chair asked Mr Remme on the possible future availability of IEA statistics as open source. Mr Remme will check on the status of these developments within the IEA.

4.2 ETSAP Participation and Outreach activities

The Chair congratulated Singapore on becoming a new Contracting Party to ETSAP and announced that ENEL Foundation has indicated that they will no longer be a sponsor in ETSAP from next year. Regarding potential new CPs the ExCo agreed we will explore the option to participate in ETSAP with Canada, Turkey and to investigate whether Taiwan can participate.

Regarding outreach activities:

The Chair informed the ExCo that he has facilitated an IRENA side event during IEW on the challenge of uncertainties of electricity demand profiles and electrification and associated model gaps.

IETS TCP: Kari Espegren and Kathleen Vaillancourt presented at a conference on industry decarbonisation organized by the IETS TCP, and Pieter Lodewijks participated in the panel debate. It was an interesting conference since modelling of industry decarbonization is important and the presentations were very well received. According to Kathleen the work of ETSAP IETS are complementary as their focus is the details of industry decarbonization and ETSAP has an increased focus on industrial decarbonization. Anna Krook-Riekkola mentioned that there is a Task of the IETS TCP in Sweden on circular flows of carbon. She requested that if there are any ETSAP members working on this topic, they can contact her directly with a view to increasing the engagement with IETS TCP on the topic. Pieter Lodewijks mentioned that there are several tasks in IETS TCP and in the cross sectoral task where ETSAP can bring-in the system perspective.

George Giannakidis will coordinate a mechanism for more formal collaboration with IETS TCP. The following ExCo members express interest to participate in the process: Anna Krook-Riekkola, Kathleen Vaillancourt, Pieter Lodewijks, Markus Blesl.

James Foster mentioned that CSIRO collaborated in a report for decarbonization of heavy industry and will share the link of the report (<https://energytransitionsinitiative.org/wp-content/uploads/2023/02/Pathways-to-Industrial-Decarbonisation-report-February-2023-Australian-Industry-ETI.pdf>)

Bioenergy TCP: Tiina Koljonen and Anna Krook-Riekkola are discussing with Biomass TCP the option to have a back-to-back meeting in the next ETSAP workshop. This can be an internal half day event between the two TCPs, following the approach we had with other TCPs. Biomass TCP are interested in collaboration since they do not have modelling expertise, but they have technology insights. The

coordination with Bioenergy TCP will continue by Anna Krook-Riekkola, Tiina Koljonen, and Kristoffer Andersen.

The Chair proposed that ExCo members engage in a discussion on raising the visibility of TIMES and organize a marketing strategy. George Giannakidis will organize a meeting with Olex Balyk, James Glynn, Markus Blesl, Kathleen Vaillancourt, Gary Goldstein to bring-in proposals in the next ExCo.

5. ANNEX XV (2020-2022): ENERGY SYSTEMS AND SUSTAINABLE DEVELOPMENT GOALS

5.1 Economy 2022 (Attachment X3)

Kari Espegren presented the ETSAP income and expenditure for 2022 and the positive results of the financial audit for 2022.

Planned and Actual	2022		2023	
Income Membership	Actual	393 000	Actual	213 000
Income Membership (late)	Late Actual	40 000	Late Actual	-
Income (training, change OA, transfer funds)	Actual	14 655	Actual	9 600
Income from previous year	Actual	891 081	Actual	981 899
Total income		1 338 736		1 204 499
Base Activities	Actual	206 082	Actual	49 776
Coordinated Projects	Actual	150 755	Actual	-
Total costs		356 837		49 776
Balance		981 899		1 154 722
Transfer of income				
Transfer Income (Core activities)	Budget	150 000	Budget	150 000
Total transfer income		150 000		150 000
Commitments				
Base Activities (contracted not invoiced)	Commitmen	13 516	Commitmen	106 224
Coordinated Projects (new)	Approved	244 700	Approved	5 000
Coordinated Projects (from prev.years)	Commitmen	412 900	Commitmen	657 600
Total Commitments		671 116		768 824
Balance		160 783		235 899
Commitments transferd to next year		671 116		768 824
Income transferred to next year		831 899		1 004 722
New Balance		0		0

5.2 Annual report 2022

Kathleen Vaillancourt reported on the progress of the Annual Report for 2022.

The approach was to include two studies per CP in 2022, but since she has not received contributions by all the CPs at the end only studies submitted will be included in the report.

The draft report will be circulated in a week. The issue of poor image quality in the previous report will be addressed in the next annual report by asking all contributions to include the images in separate files in 300dpi analysis. The questionnaire is long and could be revised in some sections or could be set up as an online form to make the process easier.

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The ExCo agreed that ETSAP will issue guidelines on the proper referencing that can be used in papers and publications: Reference to the TIMES code doi in the bibliography section, and an acknowledgement to the ETSAP community.

6 ANNEX XVI (2023-2025): ALIGNING ENERGY SECURITY WITH ZERO EMISSIONS ENERGY SYSTEMS

6.1 Status report from Operating Agent (Attachment X4)

The short status report includes activities and task performed so far in 2023.

The Operating Agent informed the ExCo that the ETSAP summer school will take place in autumn.

The Operating Agent highlighted that the issuing of contracts is the main time-consuming task for the Operating Agent. A simplified contract has been developed but even for this there were issues with some CPs. Funded projects will be paid once the contract is finalized and the deliverables are approved by the OA and the Project head.

A simpler approach to be followed with contracting was proposed by James Glynn (Columbia University) and will be discussed further. Tiina Koljonen suggested that a one-page contract, similar in content to the contract issued by the OA to the project lead, would be preferred for the different projects, otherwise there is a waste of resources to cover the legal requirements. The Chair proposed that CPs discuss and frame the issues and then in the next ExCo present them together with possible solution. Kari Espegren will coordinate this activity.

6.2 Budget 2023 (Attachment X5)

The detailed budget was discussed. The ExCo agreed that the OA will update the contract for the website according to the decision taken during item 3.1, that €13k will be allocated for the open-source publication of the new ETSAP book and that a €30k contract will be issued for project P02.

A summary of agreed expenditure to date for 2023 is shown in the table below.

Management	103,600
Project Head	13,000
Secretariat (Operating Agent)	27,000
Workshops	50,000
Sponsoring IEW	6,000
Bank expenses	600
Other, contingency	2,000
Auditing	5,000
Licenses, Tools Maintenance and improvements	69,000
VEDA licenses to the CP	36,000
TIMES	20,000
PSC / LO (combined with 2.1) New name: Liaison officer	13,000
Diffusion, capacity building	72,000
ETSAP News in social media	2,000
Website Maintenance and development	10,000
Training courses	30,000
Training Material	10,000
Other - Tosato Grant	10,000

Annual Report	10,000
Research and Development	292,700
Model of industry sector and material efficiency	46,000
Open Source TIMES Excel Reader	50,000
Review of the TIMES code in GAMS to identify areas for performance improvements	48,500
Third ETSAP book: Energy System Models and Suitable Development Goal (incl. the fee (13.000€) to Springer for open access)	25,200
Times extension for electricity, gas, hydrogen and CO2 transport infrastructures	48,000
Setting up ETSAP-TIAM on Git-Hub and making it available for the ExCo members	5,000
ETSAP TIAM Documentation and Validation	40,000
Free online Veda-TIMES platform for students/academic use	30,000

6.3 Status ongoing ETSAP funded Projects (Attachment X6)

Project leaders reported on the projects currently underway as follows:

Gary Goldstein reported the TIMES-Starter model has been updated and will be uploaded to github. The Guidelines have not yet been updated properly due to budget limitations. The Analytics excel does not work anymore with the new Veda, so the guidelines should include the Reports facility of Veda 2. Gary Goldstein requested an additional budget of €9k to update the TIMES-Starter Guidelines to include Veda2.0 functionality. The ExCo agreed this proposal will be circulated for decision via written procedure.

James Glynn reported on the project to Introduce parametric regional and temporal resolution. The first WP is completed, and the project should be completed by the end of the year.

Anna Krook-Riekkola reported on the SubRES project. She requested a project restart to include DEA since they have technology databases. The key issue is to discuss and understand what the best place is to store the database and have a flexible structure. Anna will submit a formal request for a new time-extension. Three databases with technologies in the industry sector already exist and will be uploaded to the ETSAP github repository.

Olex Balyk reported on the best practice guide on TIMES, which is delayed but is expected to be finished by the end of the year. The project benefited considerably with the interaction with the OpenMod community. On the Open TIMES excel reader; work has been undertaken within the ETSAP repository and it is available to test it on other models through private repositories. Regarding the naming of the tool there are still discussions, and a proposal will be made soon.

Tom Kober reported on the Collaboration with the Storage TCP project. Currently Storage TCP is compiling their final report, and this will be included in report to ETSAP. The project should be compiled by the end of the summer

Pernille Seljom reported on the two workshops series, which are both proceeding as planned. The only delay is the meeting in collaboration with the bioenergy TCP which will take place during the next ETSAP workshop.

James Glynn thanked PSI and VTT for their patience on the contract issues with Columbia Univ.

Sandrine Selosse reported that the Autumn School will take place from 6th to 10th of November.

Markus Blesl reported on the TIAM documentation project: the github structure has been setup, and some testing was done on parallel development. The Wiki structure exists in *readthedocs*. UCL agreed to provide the documentation in their wiki to be used in the ETSAP-TIAM wiki with a clear reference

on which parts were taken. Exchange with James Glynn on demand projections documentation will also be included.

Maryse Labriet reported on the forthcoming ETSAP book: the titles and focus of 19 chapters are already agreed, and the proposal will be submitted to Springer next week. Manuscripts are due in mid-October and the overall timeline is the same expective to launch the book in IEW 2024. Instructions on formatting etc. will be shared by Maryse as soon as we have confirmation.

7. OTHER BUSINESS

7.1 91st ExCo meeting (online)

- The ExCo agreed that the 91st ExCo meeting will be held online the 18th of September. The ETSAP OA will send a calendar invite.

7.2 Other meetings:

- *ETSAP winter WS and 92nd ExCo meeting: Italy.* The location of the ETSAP winter WS in Italy is to be decided, with Milan and Torino being the options. The WS will be held on the 16th and 17th of November.

7.3 AOB

a) Update on the license pricing changes of GAMS

- Gary Goldstein informed that GAMS will (from June 2024) discontinue issuing Runtime licenses for TIMES, and thereby also the 50% discount that was arranged with GAMS in 2015 for TIMES modellers. The ExCo expressed disappointment at this news and it reignited previous ExCo discussions on the benefits of converting TIMES from GAMS to another modelling language. This was previously explored but at that stage the other languages were at an earlier stage of development and capacity. The ExCo agreed that it would be useful to revisit the issue and discuss it further at the 91st ExCo meeting.

b) Kari Espegren informed the ExCo on changes regarding the Operating Agent

- IFE announced that from 2024 they will no longer receive additional support from the Research Council of Norway (RCN) which covers additional expenditures of being a TCP Operating Agent. From 2020-2023 RCN has supported IFE with almost 50 % of the costs associated with the role of OA. Consequently, Norway cannot be an operating agent for ETSAP without increasing the OA expenditures from 2024. The ExCo expressed concern at this and acknowledged the great role IFE has played as OA. The ExCo agreed that this will be discussed at the 91st ExCo meeting and asked CPs to consider whether they would be interested in the OA role.

c) Voting for the ExCo Chair and Vicechairs

- The Chair passed the chairing of the meeting to George. The ExCo members were requested to propose a new Chair and Co-chairs for the next year. After the proposal of the Swedish delegate, the ExCo decided unanimously to re-elect and appoint the existing Chair (Brian Ó Gallachóir) and the Co-Chairs (Markus Blesl, Germany and Tiina Koljonen, Finland) for the next period. George passed the chairing of the meeting back to Brian who thanked the ExCo members for their support.

8. AGREED ACTIONS

Action List from 90 th ExCo Meeting	Owner
If there is a delay in the meeting documents, the ExCo will be informed by e-mail.	Ongoing - Brian
Support existing ExCo members and engage with interested parties seeking to become Contracting Parties	Ongoing - George/Brian/Kari
Seek to coordinate with IEA on joint training workshops for IEA Association Countries	Ongoing - George / Uwe
Extend suspension of Russian Federation from participating in ETSAP TCP activities until there is a change in the circumstances that resulted in the suspension	Ongoing – ExCo
Explore the option of Canada and Turkey engaging in ETSAP and investigate whether Taiwan can participate	George
Develop a standard acknowledgement to ETSAP / KANORS / GAMS to be used by the students using the service	George
Check the possible future availability of IEA statistics as open source data	Uwe
Include clear definitions of the selection criteria should be incorporated into the project selection score sheet	George will co-ordinate. Definitions will be discussed in 91 st ExCo
ETSAP members working on industry decarbonization to contact with a view to increasing the engagement with IETS TCP	ExCo members, Anna
Coordinate a mechanism for more formal collaboration with IETS TCP	George, Anna, Kathleen, Pieter, Markus
Organise with Biomass TCP the option to have a back-to-back meeting during the ETSAP winter workshop	Anna and Tiina
Discuss raising the visibility of TIMES and organize a marketing strategy, bringing proposals in the next ExCo	George, Olex, James, Markus, Kathleen, Gary Goldstein
Discuss improved format and process for contracts and bring proposals to next ExCo	Kari with Tiina and James
Decide via written procedure on an additional budget to update the Guidelines for ETSAP Starter Model	George, ExCo members
Reserve €30k for the project that the ExCo voted on in 90 th ExCo	Kari
Issue contract the ETSAP webpage maintenance and development	Kari
Allocate ~€13k to enable Springer to make ETSAP book Energy Systems Models and Sustainable Development Goals open access	Kari
Organise ETSAP Autumn School to take place from 6 th to 10 th of November	Sandrine
Complete ETSAP-TIAM documentation	Markus
Issue instructions for next steps in ETSAP book chapters once Springer confirms	Maryse
Send and follow up on the invoices for the fees of 2023	Ongoing - Kari/Linda
Organise 91 st ExCo meeting on September 18	Kari / Brian / George

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Follow up with Italy on plans for 92 nd ExCo and Winter workshop	George/Kari
Revisit converting TIMES from GAMS to another modelling language	ExCo members
Continue with ETSAP webinar series – ExCo members to encourage participation and to propose webinar topics to George.	Ongoing – George / Paul / ETSAP CP