

# **Interdisciplinary Winter and Summer School on Energy Systems in Austria and the Czech Republic 2025**

## **Final Report**

Amela Ajanovic  
Jiří Louda

October 2025

## **Aim and content of the Winter and Summer School**

In 2025, we proudly celebrated the 20th anniversary of the Winter and Summer School on Energy Systems in Austria and the Czech Republic. This event is designed for 20 highly motivated students from Austrian and Czech universities who wish to deepen their understanding of energy-related issues. The programme is broadly interdisciplinary, allowing students from diverse academic backgrounds to participate. Likewise, the speakers—coming from various universities as well as industry—approach energy topics from multiple perspectives, including technology, economics, and social sciences.

The Winter and Summer Schools combine theoretical lectures, practical excursions, and interactive workshops. During the Winter School in Prague, Czech and Austrian students are paired to work collaboratively on bilateral seminar papers. These papers are developed over the semester under the guidance of lecturers, with the results presented at the Summer School in Vienna. During these presentations, students receive feedback that can be incorporated into the final version of their papers, which are subsequently evaluated by the lecturers. Successful completion of the course, based on the awarded points, grants ECTS credits.

The Winter and Summer School was first held in 2006 as part of the Czech-Austrian Energy Expert Group (CZ-AT EEG), a group of academics established in 2002 by the Austrian and Czech Governments to jointly study energy systems in both countries. Members of the group, appointed by their respective governments, are affiliated with Czech and Austrian universities and research institutions.

We are deeply grateful for the support of the AKTION programme, which enables students from both countries not only to explore the interdisciplinary aspects of energy production and consumption, but also to gain a deeper understanding of differing approaches to energy policy in the Czech Republic and Austria.

The Winter and Summer Schools are organised by Amela Ajanovic from the Vienna University of Technology and Jiří Louda from Jan Evangelista Purkyně University in Ústí nad Labem. We also collaborate closely with the Czech Technical University in Prague, which provides the facilities for the Winter School.

## **Students**

The Winter and Summer School is organised for 10 students from each country. This year, there was enormous interest in participating in the winter school (23 Czech students sent in applications). As an exception, we allowed 11 Czech students to participate. From Austria participated 10 students. Unfortunately, one Czech and one Austrian student withdrew after the Winter School, and therefore did not attend the Summer School and so did not receive ECTS credits.

The course included students from a total of 7 universities, with participants often representing very different academic disciplines, which greatly enhanced the interdisciplinary character of the programme. The full list of students, as well as the Czech and Austrian organising team, is provided in Annex 2.

The selection of the participants was based on the application form submitted to the organisers (using email or Google form, see Annex 1) as well as bilateral interviews. All participating students successfully (with the exception of one Czech and one Austrian student) completed the Winter and Summer School and were awarded a certificate granting ECTS credits.

## **Organization and program of the Winter and Summer School**

The Winter School was held in Prague from 2 to 7 February 2025. Austrian students arrived by train on the afternoon of Sunday, 2 February. Upon arrival, they were transported to the hotel and then attended a joint dinner, where they had the opportunity to meet some of the Czech lecturers and students. The lectures began on Monday morning, 3 February. Thanks to the generosity of the Czech Technical University in Prague, their facilities were made available for the lectures. The Winter School was primarily organised by Jiří Louda (Jan Evangelista Purkyně University in Ústí nad Labem), with strong support from colleagues at the Czech Technical University, including Jiří Bím (PhD student and solar energy expert) and Jaroslav Knápek (professor and head of the Department of Economics, Management and Humanities).

The Winter School programme included theoretical lectures and practical interactive workshops delivered by academics—Jaroslav Knápek, Jiří Bím, Jan Mikeš (all from CTU); Amela Ajanovic, Reinhard Haas (TU Vienna); Jiří Louda, Patrik Šimůnek and Silvester van Koten (J.E.P. University)—as well as practitioners and industry experts, including Jakub Liman (ČEZ, a.s.), Alois Tost (independent energy consultant) and Tomáš Smejkal (Ministry of Industry and Trade). The programme also featured excursions to the Biogas Power Station, Měřejovice Small Hydropower Plant, and the CTU Lightning Generator Laboratory. During this period, students formed bilateral teams and began discussing topics for their term papers.

The Summer School took place in Vienna from 11 to 16 May 2025 and was primarily organised by Amela Ajanovic, with assistance from Frank Radosits. The programme included theoretical lectures by Jaroslav Knápek and Jiří Bím (CTU), Silvester van Koten (J.E.P. University), and TU Vienna faculty members Reinhard Haas, Amela Ajanovic, Frank Radosit, and Michael Harasek. Students also participated in excursions, such as a visit to the agrivoltaics site in Donaustadt. The full programme of the Winter and Summer School 2025 is provided in Annex 3.

During the Summer School, student teams presented their bilateral seminar papers, which they had prepared between the Winter and Summer Schools. A list of the groups and paper topics is included in Annex 4. All papers focused on current issues in energy policy and energy economics within the Central European context, analysing the present energy situation in both countries.

The seminar papers, along with the students' presentations and lecturers' contributions, will be made available online on the Czech-Austrian Energy Expert Group website: <http://www.energy-europe.org/>

## Financial report

The table below presents the costs associated with organising the Winter and Summer Schools. All participants were required to pay a participation fee: Czech students contributed 1000 CZK if enrolled at a public university and 2000 CZK if studying at a private university (based on an earlier recommendation from AKTION representatives that students from private universities should contribute more), while Austrian students paid 150 EUR each. These contributions helped cover part of the expenses for daily meals (and in Austria also travel costs). Every student received a payment confirmation.

A detailed overview of the Winter School expenses in Prague, including explanatory notes, is provided in the Financial Report. Not all of the funds provided by the Ministry of Education, Youth and Sports (MŠMT)/AKTION were used, as we managed to save money on accommodation and travel. The unused portion of the grant will be returned to the Ministry's account. We confirm that there was no overlap with AKTION funding and that this additional support was indispensable for the successful implementation of the project.

We also wish to express our gratitude to the Czech Embassy in Vienna for once again arranging accommodation for Czech students during the Summer School in Vienna. This assistance was crucial and represented a significant saving for the budget.



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Ing. Jiří Louda, Ph.D.

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doc. Ing. Jan Slavík, Ph.D.

(Vice-Rector for Science and Research)

*Austrian part of financial report*

<b>Kostenart / typ nákladů</b>	<b>2025 (EUR)</b>
Aufenthaltskosten tschech. Projektteilnehmer in Österr. (gemäß den Sätzen des BMBWK, s. Merkblatt) / úhrady za pobyt českých účastníků projektu v Rakousku (dle sazeb rak. min. vědy, viz Pokyny)	4917,47
Reisespesen: Reisen österr. Projektteilnehmer in die ČR, sowie Reisen von Projektteilnehmern auf österr. Gebiet (s. Merkblatt) / jízdné rak. účastníků do ČR, jízdné účastníků projektu po Rakousku (viz Pokyny)	0
Honorar f. Lehrtätigkeit f. österr. Projektteilnehmer (gemäß d. Sätzen d. BMBWK, s. Merkblatt), honorář za výuku rak. účastníkům projektu (dle sazeb, viz Pokyny)	1000
Publikations- und Editions-kosten (Rezensenten-honorar, Druckkosten) / publikační a ediční náklady (lektorský posudek, tisk)	0
<b>Students contribution (minus travel costs)</b>	<b>- 891,10</b>
<b>Gesamtkosten in EUR / celkové náklady v EUR</b>	<b>5026,37</b>

*Czech part of financial report*

<b>typ nákladů / Kostenart</b>	<b>2025 (CZK)</b>
Úhrada ubytování účastníků projektu v ČR (viz Pokyny) / Unterkunftskosten für Projektteilnehmer in d. ČR (s. Merkblatt)	77.371
Stravné a kapesné účastníků projektu v ČR (s. Merkblatt) / Verpflegung für Projektteilnehmer in der ČR (viz Pokyny)	51.200
Jízdné česk. účastníků do Rak. a účastníků projektu po ČR (viz Pokyny) / Reisespesen: Reisen tsch. Projektteilnehmer nach Ö., Reisen von Projektteilnehmern auf tschech. Gebiet (s. Merkblatt)	39.829
Odměna za výuku českým účastníkům projektu (viz Pokyny) / Honorar für Lehrtätigkeit tsch. Projektteilnehmer (s. Merkblatt)	11.000
Publikační a ediční náklady (lektorský posudek, tisk) / Publikations- und Editions-kosten (Rezensenten-honorar, Druckkosten)	0
Ostatní náklady včetně režijních nákladů / sonstige Kosten inkl. Regiekosten	8.000
Gebühren der Studenten (poplatky studentů)	-13.000
<b>Celkové náklady v Kč / Gesamtkosten in CZK</b>	<b>174.400</b>

## Annex 1 – Application form

### Application for the Interdisciplinary Bilateral Winter and Summer School and Energy Systems in Austria and the Czech Republic 2025

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**B I U ↺ ✕**

**Winter School: February 3 – February 7, 2025 in Prague**

**Summer School: May 11 – 16, 2025 in Vienna**

*Application deadline: January 17, 2025.*

Contacts:

Jiří Louda, mail: louda@ieep.cz; phone: 608 468 676

Jiří Bím, mail: bimjiri@fel.cvut.cz, phone: 737 834 734

More information: <https://www.ieep.cz/energie-a-spolecnost/>

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E-mail \*

Platný e-mail

.....

Tento formulář shromažďuje e-maily. [Změnit nastavení](#)

Name \*

Text stručné odpovědi

.....

Phone \*

Text stručné odpovědi

.....

University, faculty \*

Text stručné odpovědi

.....

Field of your study \*



Text stručné odpovědi

**Have you attended some courses** on energy policy/ energy economics/ energy technologies (renewables, efficiency)/ other energy relevant topic?  
If so, when (year)?

Text dlouhé odpovědi

**Other experiences in the energy field** (work experience; internship/workshop; seminar papers; other)?  
Please describe.

Text dlouhé odpovědi

**Experience with/in the Austria** (language courses; seminar papers; work experience; university exchange programme in the Austria)?

Text dlouhé odpovědi

**Please summarize your motivation to participate in this Winter and Summer School (2-3 sentences).** \*

Text dlouhé odpovědi

## Annex 2 - List of participants

List of participants for the Winter/Summer School, February/May 2025, Prague/Vienna		
Surname	Name	University
<b>Austrian Students</b>		
Moret Lopez	Lorena	TU Vienna (Erasmus)
Rajic	Antonija	TU Vienna
Ostler	Florian	BOKU
Lemaire	Arnaud	TU Vienna (Erasmus)
Yoshida	Miki	TU Vienna (Erasmus)
Wiberg	Hubertus	BOKU
Guirao Molina	Juan Manuel	TU Vienna (Erasmus)
Alcalde	Angel	TU Vienna (Erasmus)
Rausch Pernas	Anna Katharina	TU Vienna (Erasmus)
Sec	Filip	TU Vienna (Erasmus)
<b>Austrian organization team</b>		
Radosits	Frank	main organizational support TU Vienna
Ajanovic	Amela	priv. doc. at TU Vienna
Reinhard	Haas	professor at TU Vienna
List of participants for the Winter/Summer School, February/May 2025, Prague/Vienna		
<b>Czech Students</b>		
Kambur	Hana	ČVUT FEL
Tutnjevic	Sarah	ČVUT FEL
Drechsler	David	ČVUT FEL
Doležal	Tomáš	ČVUT FEL
Klabečková	Kamila	SAVS Škoda Auto Vysoká škola
Dolanský	Vladimír	SAVS Škoda Auto Vysoká škola
Důmont	Filip	UJEP ( <i>not participated in the Summer school</i> )
Obal	Jáchym	UK Charles University
Gofman	Yanislava	UK Charles University
Rathauský	Lukáš	VŠE Prague university of economics and
Sádovský	Matěj	VŠE Prague university of economics and
<b>Czech organization team</b>		
Louda	Jiří	UJEP - main organizer
Sádovský	Matěj	organizational support
Bím	Jiří	CTU FEE - EEM
Knápek	Jaroslav	professor at CTU FEE - EEM

## Annex 3 - Programme of the Winter and Summer School 2025

### Interdisciplinary Winterschool 2025 on "The Future of Energy Systems in Austria and the Czech Republic"

#### Sunday, February 2nd, 2025

##### Important addresses:

Hotel Krystal - accommodation of AT students  
 J. Martího 2, tram #20, 26, line A - Nádraží Veleslavin  
 and night tram 51 - station **Nad Džbánem**

Coffee breaks  
 Jug. Partyzánů 1580/3 - 5min walk from the lecture room

Lectures - main (old) building of FEL ČVUT  
 Technická street 1902/2, room 415 (4th floor)

Monday dinner for all participants  
 Restaurant U Džbánu - Jenečská 226/20, Praha 6

19:00 Arrival of Austrian students  
 20:00 Dinner for Austrian participants

#### Tuesday, February 4th, 2025

ROOM: 415

9:00 **Introduction to Energy Economics in transport**  
 Amela Ajanovic (TU Vienna)

10:30 **Coffee break**

11:00 **Electricity economics and the role of renewables**  
 Reinhard Haas (TU Vienna)

12:30 **Lunch break at menza**

13:30 **Biomass as a major RE carrier**  
 Jaroslav Knápek

14:40 **Workshop How to write a seminar paper II incl. bilateral discussions**  
 Reinhard Haas, Amela Ajanovic, Jiří Louda, Jiří Bím

16:00 **End of the day**

#### Thursday, February 6th, 2025

8:00 **Excursion: Biogas Power Stations**  
Departure by bus. Meeting point: in front of the University  
 Jaroslav Knápek (CTU)

12:30 **Lunch break**

13:30 **Excursion: Small hydropower plant in Mířejovice**  
 Jaroslav Knápek (CTU)

17:00 **End of the day**

#### Monday, February 3rd, 2025

ROOM: 415

8:50 Registration

9:00 **Welcome address**  
 J. Knápek, A. Ajanovic, J. Louda

9:20 **Get together**  
 Alois Tost (Energy Expert)

10:50 **Coffee break**

11:15 **World Energy System - An Introduction**  
 Reinhard Haas, Amela Ajanovic (TU Vienna)

11:45 **Workshop: How to write a seminar paper I Introduction, presentation of topics**  
 Amela Ajanovic, Reinhard Haas (TU Vienna)

12:30 **Lunch break at Menza**

13:30 **Workshop Part I: Simulation game**  
 Alois Tost (Energy Expert)

14:45 **Coffee break**

15:10 **Workshop Part II + III: Simulation game results and discussion**

17:15 **End of the day**

18:30 **Dinner for all participants**

#### Wednesday, February 5th, 2025

ROOM: 415

9:15 **The Economics of nuclear power (incl. SMRs)**  
 Reinhard Haas

10:00 **Potential of Modular Nuclear Reactors in Energy Transition**  
 Jakub Líman, Expert from ČEZ

11:00 **Discussion**

11:30 **Coffee break**

11:50 **Current situation in financing new energy sources**  
 Patrik Šimůnek (Energy Expert)

12:30 **Lunch break at menza**

13:30 **Excursion: Lightning generator laboratory**  
 Jan Mikeš (CTU)

15:30 **End of the day**

#### Friday, February 7th, 2025

ROOM: 415

9:00 **National and international Energy Policy**  
 Tomas Smejkal - Ministry of Industry and Trade CZ

10:15 **Power plant economics: an interactive introduction: Part I**  
 Silvester van Koten (J.E.P. University)  
 please take your laptops with you to this lecture

11:15 **Coffee break**

11:45 **Power plant economics: an interactive introduction: Part II**  
 Silvester van Koten (J.E.P. University)

13:00 **Lunch break at menza**

14:00 **Time for individual discussion of seminar papers in bilateral teams**  
 moderated by Jiří Louda (J.E.P. University) and Jiří Bím (CTU)

15:30 **End of the day**

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## Interdisciplinary Summer School 2025 on "The Future of Energy Systems in Austria and the Czech Republic"

### Sunday, May 11 2025

#### Accommodation for Czech students:

Accommodation at Czech Embassy  
Penzinger Str. 114, 1140 Wien

and

PLAZA INN Wien Gasometer  
Paragonstraße 1, 1110 Wien

17:21 Arrival of Czech students in Wien

19:30 Dinner for Czech students

#### Lectures:

Note the lectures will be in different rooms!!!

### Monday, May 12 2025

Room EI 1 Petritsch HS

9:00 *Registration*

9:15 **Introduction and welcome speech**

A. Ajanovic /R.Haas

9:30 **Biomass in Europe**

J. Knapek (Technical University of Prague)

11:00 *Break*

11:15 **Agrivoltaic systems as part of the modern energy sector?**

Jiri Bim (Technical University of Prague)

12:30 *Lunch break at Mensa*

Room EI 6 Eckert HS

14:00 **New challenges in Electricity markets**

Reinhard Haas (TU WIEN)

15:30 **Work on seminar papers/presentations by students**

17:00 *End of day*

### Tuesday, May 13 2025

Room EI 6 Eckert HS

9:00 **Presentations of seminar papers by students**

with R. Haas, J.Knapek, A.Ajanovic

11:00 *Break*

11:15 **Presentations of seminar papers by students**

with R. Haas, J.Knapek, A.Ajanovic

12:30 *Lunch break at Mensa*

13:45 **Excursion to the agrivoltaics site at Donaustadt**

with Jiri Bim

17:00 *End of day*

19:00 *Social event for all students*

### Wednesday, May 14 2025

Room EI 6 Eckert HS

9:30 **The Tragedy of the Commons in Energy Policy-  
an interactive game**

Alois Tost

12:00 *Lunch break at Mensa*

Room EI 4 Reithoffer HS

13:30 **Basics of carbon taxation and ETS**

Silvestr van Koten

16:00 **Work on seminar papers**

17:00 *End of day*

### Thursday, May 15 2025

Room Seminarraum 384

9:30 **Energy and mobility (Part II)**

Amela Ajanovic

11:00 *Lunch break at Mensa*

12:15 **Technical Tour -Wien Energie**

Room EI 4 Reithoffer HS

16:00 **Work on seminar papers**

17:00 *End of day*

### Friday, May 16 2025

Room EI 2 Pichelmayer HS - ETIT

9:30 **Recent developments of biomass technologies**

Michael Harasek

11:00 *Break*

11:15 **Carbon capture, storage and utilisation**

Frank Radosits

13:00 *Lunch break at Mensa*

*End of day*

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## Annex 4 - List of the seminar paper groups with topic and supervisors

Seminar papers: CZ-AT pairs and topics			
CZ student	AT student	Title of the paper	Supervisor
Tomáš Doležal	Hubertus Wiberg	Relevance and Costs of Long- and Short-Term Energy Storage Systems: A Case Study of the Czech Republic and Austria in the EU Context	Reinhard Haas
Kamila Klabečková	Juan Manuel	<i>Both students left the winter-/ summer school</i>	Reinhard Haas
Filip Důmont (not present in Vienna)	Angel Alcalde	Energy communities: comparing the implementation of EU directives and initiatives	Reinhard Haas
Vladimír Dolanský	Antonija Rajic	National Energy and Climate Plans (NECP) in Electricity Systems	Reinhard Haas
Sarah Tutnjevic	Lorena Moret Lopez	Biofuels: Current policies, future goals, feedstocks, costs - A theory-based evaluation	Amela Ajanovic
Jáchym Obal	Filip Sec	E-MOBILITY in road transport – Different transport modes: stock, strategies, policies	Amela Ajanovic
Hana Kambur	Anna Katharina Rausch Pernas	Electric vs. Gasoline Vehicles: Total Cost of Mobility	Amela Ajanovic
Lukáš Rathauský	Miki Yoshida	Transport Policies: National and EU Policies	Amela Ajanovic
Yanislava Gofman			
Matěj Sádovský	Arnaud Lemaire	The challenging electrification of commercial vehicles in Europe	Amela Ajanovic
David Drechsler	Florian Ostler	EU Energy Performance of Buildings Directive - Evaluation of National Implementations in CZ and AT and their effectiveness	Jaroslava Knápek