

Interdisciplinary Bilateral Summer School on Energy Systems in Austria and the Czech Republic 2020

Final Report

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Aim and content of the (Winter and) Summer School 2020

The Czech-Austrian Energy Expert Group (CZ-AT EEG) was established in 2002 by the Austrian and Czech Governments to jointly study the issues of energy systems in both countries. The members of this group, appointed by their governments, are affiliated with Czech and Austrian universities and institutions. The Czech-Austrian Energy Expert Group is based on bilateral cooperation on sensitive issues in the field of energy contributing to shaping future energy policies in both countries and across the EU.

The established partnership and cooperation between Czech and Austrian energy academic experts led to the idea to organize the Winter and Summer School on Energy Systems in Austria and Czech Republic. As the COVID pandemic situation influenced lot of activities during the spring and summer, summer school was organised as an on-line course when students and lecturers were in touch through on-line platform during the week.

Since 2013 the Winter and Summer School has been formally organized by Jan Evangelista Purkyně University in Ústí nad Labem and Vienna University of Technology. The whole concept of the event remained the same as the network of collaborating experts.

The course is designed for 20 students from universities with the interest in energy topics. The participating Czech and Austrian students created the bilateral group of two (or three in special case) during the Winter School in Prague and they started their work on bilateral seminar papers. Seminar papers were presented during the on-line summer part of the course and evaluated by supervisors who helped the students with their work during the spring.

Students

The participating students came from different specializations and universities (in CZ – Charles University, Czech Technical University, Jan Evangelista Purkyně University in Usti nad Labem and Palackeho University in Olomouc – for the first time), which provides the heterogeneous mixture of approaches to the energy issues and brings the open board for interesting multi approach discussion.

Students were chosen through the application form with the personal information and experiences in the energy and economics field (application form can be seen in Annex 1 of this document). The list of participants (meaning all students, lecturers and organization team) can be seen in Annex 2.

Organization and program of the Winter and Summer School 2020

The whole project was proposed and carried out by:

Amela Ajanovic from Vienna University of Technology, Austria

Jiřina Jílková from Jan Evangelista Purkyně University in Ústí nad Labem, Czech Republic

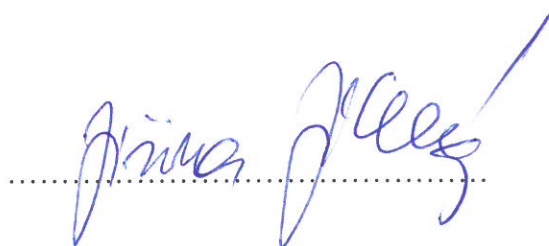
Together in the cooperation with their project partners:

Wolfgang Streicher from Innsbruck University, Austria, Reinhard Haas from Vienna University of Technology, Austria and Jaroslav Knápek from Czech Technical University in Prague, Czech Republic.

The program and all the activities were organized by the teams of the home universities. Jiří Louda (in behalf of Jiřina Jílková - UJEP), Jana Rytychová (UJEP) and Jaroslav Knápek, Michaela Lachmanová (CTU) were the coordinators of the Winter School in Prague, Amela Ajanovic in cooperation with Reinhard Haas and Anne Glatt (TU Vienna) were the coordinators of the Summer School in Vienna, as mentioned above, due to covid situation the coordination of the Summer School was little bit different this year. There were only theoretical lectures and students' presentations introduced during the Summer school, but students had the possibility to visit some interesting places from the energy field during the excursion in February. The program of the Winter and Summer School 2020 can be found in Annex 3.

During the Winter School in Prague students created teams of two (or three in special case) people to start working on the topics which they could choose upon the agreement with supervisors (Amela Ajanovic, Jirina Jilkova, Reinhard Haas, Jaroslav Knapek). During the time between the Winter and Summer School students were working in Czech-Austrian teams on their seminar papers. The aim of all of the topics was to analyse the current situation in both countries, find up-to-date data and compare it (also on the EU level). Students presented their seminar papers and results of the comparison during the special Summer School (see in program). The list of all seminar papers presented can be found in Annex 4.

We guarantee that there was no overlapping of the financing from AKTION and this extra support was absolutely necessary to realize this successful project.



Prof. Ing. Jiřina Jílková, CSc.

Annex 1

Application for the Interdisciplinary Bilateral Winter and Summer School of the Czech-Austrian Energy Expert Group

**(Winter School: February 3 – 7, 2020 in Prague
Summer School: June 14 – 19, 2020 in Vienna)**

Application deadline: January 10, 2020. E-mail address for sending this application is: zemkova@e-academia.eu

Contact details

Name:

Address:

E-mail:

Tel:

Education

Field of study:

University:

Number of semesters at the University:

Achieved academic title:

- Bakk /when (year):
- Master/Magister/ when (year):
- Doktor/PhD/ when (year):

Successful attended university classes/courses on: (which)

when (year)

- Energy policy:
- Energy economics:
- Energy technologies:
(renewables, efficiency)
- Other energy relevant topic:

Other experiences in the energy field

- work experience:
- internship/workshop:
- seminar papers:
- other:

Experience with/in the Austria

- language courses:
- seminar papers:
- work experience:
- university exchange programme in the Austria:

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

Annex 2 List of participants

List of participants for the Winter/Summer School, February/June 2020, Prague/Vienna		
Surname	Name	University
Austrian Delegation		
Prof. Dr. Haas	Reinhard	TU Vienna
Prof. Dr. Streicher	Wolfgang	UIBK
Prof. Dr. Schleicher	Stefan	KFUG
Dr. Ajanovic	Amela	TU Vienna
Dipl.-Ing. Gruenner	Roman	BOKU
Austrian Students		
Turetschek	Michaela	TU Vienna
Imamovic	Irma	TU Vienna
Havlicek	Daniela	TU Vienna
Schinnerl	Peter	TU Vienna
Zöchling	Benedikt	TU Vienna
Martinović	Nika	TU Vienna
Seitzhanova	Gaini	TU Vienna
Ashjaei	Sahar	TU Vienna
Lehmann Tron	Anik	TU Vienna
Üstüner	Zeynep	TU Vienna
Austrian Team		
Prof. Dr. Haas	Reinhard	TU Vienna
Dr. Ajanovic	Amela	TU Vienna
Glatt	Anne	TU Vienna
Czech Delegation		
Prof. Jílková	Jiřina	UJEP
Prof. Janouch	František	Royal Academy Stockholm
Prof. Knápek	Jaroslav	CVUT
Czech Students		
Dunovski	Dean	CVUT
Dvořáčková	Lenka	UK
Hajas	Jakub	UJEP
Klempay	Milan	CVUT
Šimůnek	Patrik	CVUT
Schröpferová	Lenka	CVUT
de Oca Zaipain	Arturo Montes	CVUT
Skála	Jan	CVUT
Stejskalová	Rozálie	UPOL, UK
Cibulka	Šimon	CVUT
Czech Team		
Louda	Jiří	UJEP
Zaňková	Lenka	UJEP
Rytychová	Jana	UJEP

Annex 3 Programme of the Winter and Summer School 2020

Interdisciplinary Winterschool 2020 on "The Future of Energy Systems in Austria and the Czech Republic"

Sunday, February 2nd, 2020		Tuesday, February 4th, 2020		Thursday, February 6th, 2020	
Important addresses: Hotel Krytal J. Mentha 2, tram #20, 26, line A - Nádraží Veleslavín and night tram 51 - station Nad Džbánem CVUT - lecture room Adg. Partyzáni 1580/3 J: B5-576 Restaurace U PRAMENE Coelneho 25/105 Menza Studentský dům Btš 257/16		9:00 Introduction to Electricity markets and the role of renewables Reinhard Haas . 10:30 Coffee break 10:45 Introduction to Energy Economics in transport Amela Ajanović 12:00 Workshop How to write a seminar paper II A. Ajanović, R. Haas, A. Glatt, J. Rytířchová 13:30 Lunch break at menza 14:30 Workshop How to write a seminar paper III Bilateral discussions, A. Glatt, J. Rytířchová 17:00 <i>End of the day</i>		8:00 Excursion: Coal Power Plant Melnik and Small hydropower plant Mířejovice Departure by bus, meeting point: will be added 13:30 Lunch break at menza 14:15 Biomass as a major RE carrier Prof. J. Krápek 15:15 Coffee break 15:30 Biomass: continuation Prof. J. Krápek 17:00 <i>End of the day</i>	
Monday, February 3rd, 2020		Wednesday, February 5th, 2020		Friday, February 7th, 2020	
9:00 Registration ROOM: J:B5-576 9:10 Welcome address and get together Prof. J. Krápek, Doz. Dr. A. Ajanović Prof. R. Haas, Dipl.-Ing. Alois Tost 11:00 Coffee break 11:15 World Energy System - An Introduction R. Haas, A. Ajanović 11:45 Workshop: How to write a seminar paper I Introduction, presentation of topics A. Ajanović, R. Haas, A. Glatt, J. Rytířchová 12:30 Lunch break at Menza 13:15 Workshop Part I: Simulation game Dipl.-Ing. Alois Tost 14:30 Coffee break 14:45 Workshop Part II + III: Simulation game 17:00 <i>End of the day</i>		9:00 Registration ROOM: J:B5-576 9:00 Lighting discharge Laboratory testing and modelling J. Mikeš 12:00 Lunch break at menza 13:00 The new faces of electrical networks coordination M. Vřba 15:00 Bilateral discussion of seminar papers in teams 17:00 <i>End of the day</i>		9:00 Registration ROOM: J:B5-576 9:00 National and International Energy Policy T. Smejkal - Ministry of Industry and Trade CZ 10:15 Coffee break 10:30 Regulation in Energy Sector: Introduction Prof. Jiřina Jilková, J.E.P. University 12:00 Lunch break at menza 13:30 Time for individual discussion of seminar papers in bilateral teams 16:00 <i>End of the day</i>	
19:00 <i>Arrival of Austrian students</i> 19:00 <i>Dinner for Austrian participants</i>					



Interdisciplinary Summer School 2020 on "The Future of Energy Systems in Austria and the Czech Republic"

Monday, June 15th 2020		Wednesday, June 17th 2020	
9:15	<i>Introduction</i> PD Dr. A. Ajanovic and Prof. Dr. R. Haas, TU Wien	9:30	<i>Energy and Environmental Policy: Costs and Benefits</i> Prof. Dr. Jilkova
9:30	<i>Recent developments on EU electricity markets</i> Prof. Dr. J. Knappek (Technical University of Prague)	11:00	<i>Break</i>
11:00	<i>Break</i>	11:30	<i>Presentations of seminar papers by students</i> with A.Ajanovic, R. Haas, J.Knappek, J.Jilkova, A.Glatt
11:30	<i>Work on seminar papers</i> (with J. Knappek, A. Glatt, Jilkova, A. Ajanovic, R. Haas)	13:00	<i>End of day</i>
16:00	<i>End of day</i>	Thursday, June 18th 2020	
Tuesday, June 16th 2020		9:00	<i>Presentations of seminar papers by students and discussion</i> with R. Haas, J.Knappek, A. Glatt, A. Ajanovic, Jilkova
9:30	<i>New challenges in Electricity markets</i> Prof. Reinhard Haas (TU WIEN)	11:00	<i>Break</i>
10:30	<i>Break</i>	11:15	<i>Biomass in Europe</i> Prof. Dr. J. Knappek (Technical University of Prague)
11:00	<i>Recent developments of biomass technologies</i> Prof. Michael Harasek	13:00	<i>Break</i>
12:30	<i>Break</i>	14:00	<i>Work on seminar papers by students</i>
14:00	<i>Energy and mobility</i> Amela Ajanovic	17:00	<i>End of day</i>
15:15	<i>Break</i>	Friday, June 19th 2020	
15:30	<i>Work on seminar papers</i> (with J. Knappek, A. Glatt, Jilkova, A. Ajanovic, R. Haas)	9:00	<i>Sustainable Buildings</i> Dipl. Ing. Roman Grüner (BOKU Vienna)
17:00	<i>End of day</i>	11:00	<i>Break</i>
		11:15	<i>Closing discussion</i>

Annex 4 List of the seminar paper groups with topic and supervisor

Austrian student	Czech student	TOPIC OF SEMINAR PAPER	Supervisor
Michaela Turetschek	Patrik Šimůnek	The economics of small decentralized PV systems	Reinhard Haas
Zeynep Üstüner Anik Lehman	Rozálie Stejskalová	The economics of small decentralized PV systems	Jaroslav Knápek
Daniela Havlicek	Jakub Hajas	The relevance and costs of short vs. long term storage	Reinhard Haas
Nika Martinovič	Milan Klempay	E-mobility in urban areas: comparison and lessons learned	Amela Ajanovic
Sahar Ashjaei Peter Schinner	Jan Skála	Electric vs. gasoline vehicles: costs, fuel and electricity prices, taxes	Amela Ajanovic
Irma Imamovic	Arturo Montes de Oca Zapiain	Promoting renewable electricity: Targets, Strategies, by Technology (2005-2019)	Reinhard Haas
Benedikt Zöchling	Dean Dunovski	NCEP: comparing for electricity	Jaroslav Knápek