

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

Final Report

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Aim and content of the Winter and Summer School

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.

The helpful and successful cooperation between Czech and Austrian energy experts led to the idea to organize the Winter and Summer School on Energy Systems in Austria and Czech Republic. All of those previous Winter and Summer Schools led to the intention to organize it again for the twelfth time in 2017.

During the years 2006 - 2012 the Winter and Summer School was organized by University of Economics in Prague and Karl-Franzens University in Graz. 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 well the network of collaborating experts.

The Winter and Summer School on Energy Systems in Austria and Czech Republic is designed for 20 students who want to acquire and deepen their knowledge about energy issues through interesting presentations and excursions. The participating Czech and Austrian students should find a partner from the other country during the Winter School in Prague to start working on their bilateral seminar papers. The papers were being written by the teams during the whole semester, results of their collaboration were presented during the Summer School in Vienna. Winter School in Prague was organized in January/February 2017 and Summer School in Vienna at the turn of May and June 2017.

Students

The participating students came from different specializations and universities (in CZ), which provides the heterogeneous mixture of approaches to the energy issues. There were students from: Vienna University of Technology, University of Economics in Prague, Czech Technical University in Prague and University of South Bohemia in České Budějovice (for the first time).

There were 10 students from Czech Republic and 9 students from Austria elected through a formal selection process on universities. The students had to fill in an application form concerning their energy-related background. (See application form in Annex 1.) All of those participants had to prove that they had already dealt with some energy related topics at their university or some practical experience in the field of energy. They were nominated by the project partners and selected in accordance to their study success and experience with seminar topics. The list of participants (meaning all students, lecturers and organization team) can be found in Annex 2.

Organization and program of the Winter and Summer School 2016

The whole project was proposed and carried out by:

Amela Ajanovic from Vienna University of Technology, Austria

Jaroslav Koutský 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 and Lenka Zemková (in behalf of Jaroslav Koutský) and Jaroslav Knápek were the coordinators of the Winter School in Prague, Amela Ajanovic in cooperation with Reinhard Haas were the coordinators of the Summer School in Vienna. The program of the Winter and Summer School 2017 can be found in Annex 3. Topics, excursions and also the lecturers of this whole course were chosen to help students to acquaint with various energy topics as they could compare those gained information with those from their studies at home universities. Students from both countries had the possibility to compare the energy situation in their country with the other one which is supposed to be very helpful in finding and understanding the differences and similarities of both areas.

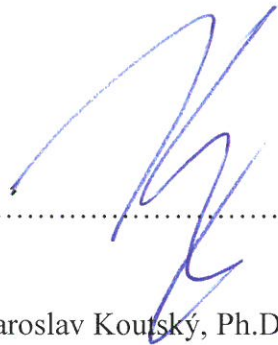
The lecturers of this course were not only the people from academic sphere but also from the private sector. This fact is an important fact in getting the complete information from more points of view. There was a theoretical part lectured in Vienna University of Technology, this part was enriched by excursions where students may gain the practical view. During the Winter School in Prague the excursions took place in: two small hydro power plants in Litoměřice and Měříství and Czech Technical University Laboratory. Students also participated on the lecture about E-mobility with a practical demonstration of two electric vehicles. During the Summer School in Vienna, participants had the possibility to visit: the waste incinerator in Spittelau, Austrian Power Grid and a solar building - passive apartment house with the architect's commentary.

During the Winter School in Prague students created bilateral teams of two people to start working on the topics which they could choose. As there were 9 students from Austria, one team was created by two Czech and one Austrian student. Each team had a supervisor (elected depending on the background of the different experts) for discussing the topics and giving advices and feedbacks. 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 had to present their seminar papers and results of the comparison during Summer School in Vienna. The list of all seminar papers presented in Vienna can be found in Annex 4. All students successfully participated the course received the certificate based on the evaluation.

All data, presentations of students and lecturers, seminar papers, background literature, etc. can be found on the restricted area of the project website under www.ieep.cz/projekty (both username and password: "I7A").

Before the Winter School, the contribution from Austrian students (9 x 150 EUR/student) and contribution from Czech students (10 x 1000 CZK/student) was collected. During the winter week in Czech Republic, the Czech amount was totally spent for daily meals (for the Austrian and Czech participants) and refreshment during the lectures which was not covered by the AKTION budget. In Austria, the contribution (1350 €) was taken to finance the expenditures for lunch and the joint dinner. Each student received a confirmation of his/her contribution delivery. The overview of expenses (and comments) during the Summer School in Prague is in the Financial Report.

We guarantee that there was no overlapping of the financing from AKTION and this extra support was absolutely necessary to realize this successful project. We thank to Austrian Embassy for arranging the accommodation for Czech students.



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RNDr. Jaroslav Koutský, Ph.D.

Annex 2 List of participants

List of participants for the Winter/Summer School, February/June 2017, 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		
Manafi Miralilo	Ali	TU Vienna
Fall	Aminata	TU Vienna
Talesh Lar	Javad	TU Vienna
Mahdi	Omidi	TU Vienna
Sheikhalizade	Farshid	TU Vienna
Jooya	Iman	TU Vienna
Wachter	Lukas	TU Vienna
Milenkovic	Vukola	TU Vienna
Eisazadeh	Mohammadsadigh	TU Vienna
		TU Vienna
Austrian Team		
Prof. Dr. Haas	Reinhard	TU Vienna
Dr. Ajanovic	Amela	TU Vienna
Toleikyte	Agné	TU Vienna
List of participants for the Winter/Summer School, February/June 2017, Prague/Vienna		
Surname	Name	University
Czech Delegation		
Prof. Jílková	Jiřina	UJEP
Prof. Janouch	František	Royal Academy Stockholm
Prof. Knápek	Jaroslav	CVUT
Czech Students		
Cruz Viques	Karol Patricia	CVUT
HAMPL	David	CVUT
Igissenov	Assylbek	CVUT
Kroneisl	Jan	CVUT
Mengr	Miroslav	CVUT
Mino	Jakub	VSE
Sagapova	Nikola	JCU
Krautwurm	Petr	VSE
Jirka	Tomáš	CVUT
Sýkora	Jakub	CVUT
Czech Team		
Louda	Jiří	UJEP
Zemková	Lenka	UJEP

Annex 3 Programme of the Winter and Summer School 2017

Interdisciplinary Winterschool 2017 on "The Future of Energy Systems in Austria and the Czech Republic"

Sunday, January 29th, 2017	Tuesday, January 31st, 2017	Thursday, February 2nd, 2017
<p>Important addresses:</p> <p>Hotel Krystal J. Martho 2, tram #20, 26, line A - Nádraží Veleslavín and night tram 51 - station Nad Džbánem ČVUT - lecture room Solinova 7 (corner of streets Zikova and Šolinova) Kloknerův ústav, room Z2:B1-356, 2nd floor Restaurace Pod Loubím Evropská 26, tram station Dejvická Menza Studentský dům Bílá 2571/6 Academic restaurant Thákurova 1</p>	<p>9:00 Electricity markets and the role of renewables and nuclear Prof. Reinhard Haas, Vienna University of Tech.</p> <p>10:30 Coffee break</p> <p>10:45 Energy and CO₂ emissions in transport Dr. Amela Ajanović Lunch break at Menza</p> <p>12:15 Workshop on seminar paper, part II A. Ajanović, R. Haas, J. Knápek</p> <p>13:30 Coffee break</p> <p>15:00 Workshop: Blowing in the wind - How reliable is the renewable energy supply? Dipl.-Ing. Alois Tost</p> <p>17:00 End of the Day</p>	<p>8:30 CEZ E-mobility Pilot Project Ing. Tomáš Chmelík</p> <p>11:00 Excursion: CTU Laboratory Czech Technical University in Prague</p> <p>12:30 Lunch break at Menza</p> <p>14:00 Legislative process in the Energy Sector and Regulatory Impact Assessment Prof. Jiřina Jilková, J.E.P. University</p> <p>15:30 Coffee break</p> <p>15:45 National and international Energy Policy Tomáš Smejkal - Ministry of Industry and Trade CZ</p> <p>17:00 End of the day</p>
<p>19:00 Arrival of Austrian students 19:00 Dinner for Austrian participants</p>		
Monday, January 30th, 2017	Wednesday, February 1st, 2017	Friday, February 3rd, 2017
<p>9:00 Registration</p> <p>9:15 Welcome address and introduction Prof. J. Knápek</p> <p>9:30 World Energy System - An Introduction R. Haas, J. Knápek, A. Ajanović</p> <p>10:45 Coffee break</p> <p>11:00 Workshop: How to write a seminar paper Introduction, presentation of topics - Part I A. Ajanović, R. Haas, J. Knápek</p> <p>11:55 Lunch break at Menza</p> <p>13:00 Progress in research on biomass Prof. J. Knápek</p> <p>14:30 Coffee break</p> <p>14:45 Progress in research on biomass - part II</p> <p>17:00 End of the day</p>	<p>8:00 Excursion: Small hydropower plants in Litoměřice and Mířevojevice Departure by bus, meeting point Solinova 7</p> <p>13:00 Lunch break at Menza</p> <p>14:00 Workshop Part II: Simulation game Dipl.-Ing. Alois Tost</p> <p>15:30 Coffee break</p> <p>15:45 Workshop Part III: Simulation game results and discussion</p> <p>17:15 End of the day</p>	<p>10:30 Workshop on seminar paper, part III A. Toleikytė, L. Zemková Discussion on topics in bilateral teams and short presentation of status quo</p> <p>12:30 Lunch break at Menza</p> <p>14:00 Time for individual discussion of seminar papers in bilateral teams</p> <p>17:00 End of the day</p>
		

Interdisciplinary Summer School 2017 on "The Future of Energy Systems in Austria and the Czech Republic"		
Sunday, May 28th 2017	Tuesday, May 30 th 2017	Thursday, June 1st 2017
Accommodation for Czech students:	Dekanatzimmer CF Z217	Dekanatzimmer CF Z217
Accommodation at Czech Embassy Penzinger Str. 114, 1140 Wien	9:00 New challenges in Electricity markets Prof. Reinhard Haas (TU WIEN)	9:00 Biomass in Europe Prof. Dr. J. Knappek (Technical University of Prague)
	10:15 <i>Coffee break</i>	10:15 <i>Coffee break</i>
18:24 Arrival of Czech students in WienMeidling 19:30 Dinner for Czech students	10:30 Presentations of seminar papers by students and discussion with R. Haas, A.Ajanovic, A.Toleikyte, J.Jilkova 13:00 Lunch break at Mensa 14:15 Presentations of seminar papers by students and discussion with R. Haas, A.Ajanovic, A.Toleikyte, J.Jilkova	10:45 Recent developments on EU electricity markets Prof. Dr. J. Knappek (Technical University of Prague)
Lectures:		12:00 <i>Lunch break at Mensa</i>
Dekanatzimmer CF Z217, Gusshausstrasse 25, 2-3. Stock, Stiege 7		13:30 Technical Tour Austrian Power Grid
	17:00 Vienna Tour	16:30 <i>End of day</i>
	19:00 Social event for all students and lecturers	
Monday, May 29th 2017	Wednesday, May 31st 2017	Friday, June 2nd 2017
Dekanatzimmer CF Z216	Dekanatzimmer CF Z217	Dekanatzimmer CF Z217
9:00 Registration	9:00 The tragedy of the commons	9:00 Sustainable Buildings
9:15 Introduction Prof. R. Haas, Dr. A. Ajanovic (TU WIEN)	Alois Tost	Dipl. Ing. Roman Grüner (BOKU Vienna)
9:30 Environmental policies in the energy sector Prof. Dr. Jirina Jilkova (UIEP, University Usti nad Labem)	10:30 Coffee break	11:15 <i>Lunch break at Mensa</i>
11:00 Coffee break	10:45 The tragedy of the commons (continuation) Alois Tost	12:30 Technical Tour Solar buildings
11:30 Environmental policies in the energy sector Prof. Dr. Jirina Jilkova (UIEP, University Usti nad Labem)	12:30 Lunch break at Mensa	15:00 <i>End of day</i>
12:30 Lunch break at Mensa	13:30 Work on seminar papers by students (with J. Knappek, Bems)	
14:00 Work on seminar papers by students	15:30 Technical Tour	
15:30 End of day	Waste incineration plant Spittelau	
	<i>End of day</i>	



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

Austrian student	Czech student	TOPIC OF SEMINAR PAPER	Supervisor
Aminata Fall	Jakub Mino	GHG REDUCTION POLICIES IN URBAN AREAS	Reinhard Haas
Farshid Sheikhalizade	Jakub Sýkora	ELECTRICITY MARKETS: MARKET COUPLING VS MARKET SPLITTING	Jaroslav Knápek
Javad Talesh Lar	Assylbek Igishev, Karol Cruz	PROMOTING RENEWABLE ENERGY: TARGETS; STRATEGIES, COSTS, BY TECHNOLOGY (2005-2015)	Reinhard Haas
Eisazadeh Mohammadsadigh	David Hampl	THE ECONOMICS OF SMALL DECENTRALIZED PV-SYSTEMS (with storage)	Reinhard Haas
Ali Manafi Miralilo	Miroslav Menger	THE ECONOMICS OF SMALL DECENTRALIZED PV-SYSTEMS (without storage)	Jaroslav Knápek
Mahdi Omid	Tomáš Jirka	THE RELEVANCE AND COSTS OF SHORT VS LONG-TERM STORAGE	Reinhard Haas
Imaan Jooya	Jan Kroneisl	E-MOBILITY IN URBAN AREAS: COMPARISON OF POLICIES AND LESSONS LEARNED	Amela Ajanovic
Vukola Milenkovic	Nikola Sagapova	ECONOMICS OF E-MOBILITY: COSTS, FUEL & ELECTRICITY PRICES, TAXES	Amela Ajanovic
Lukas Wachter	Petr Krautwurm	ENERGY EFFICIENCY AND WASTE HEAT UTILIZATION IN CZ AND AT	Lenka Zemková