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## REPORT ON THE PROJECT OF COOPERATION IN EEA GRANTS

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**Schools:** Technical College Reykjavík a Technical College Jihlava

**Place:** Iceland and the Czech Republic

In November, specifically on 7 November 2021, 12 Icelandic students from a similar school I attend here in Jihlava arrived in the Czech Republic. In order to manage not only ordinary conversation in English with each other, before their arrival we were learning the basics of technical English focused on energy. This topic was the most basic axis of our days together here and then in Iceland. Unfortunately, the stay in the Czech Republic had to be shortened by a couple of days. The reason was that the teacher from Iceland fell ill with covid 19.

In spite of that we managed to do a lot. We visited Ledvice, which is a coal-fired power plant in the Teplice district in the Ústí nad Labem region. This power plant was very interesting for the Icelandic students. It made me realise the differences between our countries. Iceland has 100 % renewable energy. This way of energy generation, which we saw in Ledvice, is not ecological, but it is commonplace for our society.

We also saw the Dolní Vítkovice facility near Ostrava, where coal was mined. We were on the highest tower, we toured the site, all with expert commentary in both Czech and English. The connection with Ledvice, the whole process of obtaining energy from coal, was connected to us at that moment. Since the journey from Jihlava to our destination took a long time, we had time to get acquainted and practice our English on the bus.

Our next destination was Prague. Our Icelandic friends were very impressed by it. Again we had a professional guide who showed us the most important places of our capital city.

In order to present our Highlands in the best possible way, we visited the Lipnice Castle and walked around its surroundings with forests, quarries and beautiful nature. We also presented our city of Jihlava, we took the opportunity to see the new trusses in our largest church St. James, all interspersed with church organ music and a view from the tower. From there we enjoyed views of the square and the urbanization of Jihlava.

In power plant Dukovany, unfortunately, due to the current pandemic conditions, we could not see inside the plant. Nevertheless, we saw the information centre, which is authentically created. We were shown how the energy is obtained from a nuclear reaction. It was an experience to walk around in a mock-up of a nuclear reactor, where, among other things, the control rods were on display. In the following days we were visited by Ing. Dana Drábová, Ph.D., dr. h. c. mult., Czech nuclear physicist, chairwoman of the State Office for Nuclear Safety. She gave us an engaging lecture about nuclear energy in the Czech Republic. Unfortunately, we missed Dlouhé Stráně, which is a pumped storage hydroelectric power plant, and a tour of the town of Telč.

I appreciated the opportunity to compare the main energy sources in our country. I clarified many ideas, sorted out information and learned a lot.

We looked forward to meeting again, this time in Iceland, where we arrived in full numbers on 24 April 2022 and stayed for a full 15 days. The travel itself was an experience, taking 15 hours by bus and plane, and the early wake-up was unusual.

First we got acquainted with the school and the program that awaited us. I was also interested in comparing the Nordic school system with ours. We created a design for a t-shirt print and then the t-shirt itself, which will remind me of unforgettable moments. We visited the oldest building in Iceland and also the old hydroelectric power station from 1904, which was in the city of Reykjavík. When it was started it was the source of electricity for the first few electrified houses. The geothermal plant, the third largest of its kind in the world, produces 303 MW of electricity and 133 MWth of thermal energy, which it converts into hot water and sends to Reykjavík.

A very authentic experience was a three-kilometer hike into the mountains where we took a dip in the natural swimming pool, which was a stream flowing from the mountains whose water was 38 degrees Celsius. The next day we were treated to a lecture by ON, which focused on street lighting in Iceland. It was really interesting to find out how they work with lighting especially during the polar night. This was followed by a lecture on CARBFIX technology, which manages to convert carbon dioxide into stone in the ground, this technology is very unique and very energy intensive.

The highlight of the day was a presentation by the Minister of the Environment. As we had prepared questions, I think our discussion with him was very informative and interesting.

The next day was also marked by lectures. The first topic was the Icelandic perspective on renewable energy in Iceland. I appreciated the insight of the Icelandic specialists on this issue. The next follow-up lecture was on windmill energy. The positives and negatives of wind power were addressed, the main negatives being noise and interference with the landscape and of course the main positive being that it is a renewable source of energy produced. After this debate we went to the museum where we saw the oldest surviving bones of Iceland's ancestors, the Vikings, and their culture.

Since we were in Iceland when the Icelanders had their last bell ringing, we experienced it with them. We walked around Reykjavik wearing Squid game masks and completing the tasks we had been given beforehand, which was great fun.

The next day was full of exploring. We went to the Vestman Islands, where we were taken to by a ferry powered only by battery power. The boat only goes 24 kilometres on a single charge, so it has to be recharged from an automated charging station before each journey. I consider the greatest experience of the Westman Islands to be that we visited an active volcano and the museum that was set up after the volcano erupted. It showed how dangerous the power of a volcanic eruption can be. We walked around the city with a professional guide and saw how devastating a volcanic eruption can be.

There were many unforgettable experiences, I can list for example a visit to a geyser that erupts once every 3-5 min to a height of 70 m. Seeing the lava, its texture and quantity was incredible, maybe because it was only one year old. We swam almost daily in the thermal pools, of course we couldn't leave Iceland and not visit the Blue Lagoon.

For me personally, it was a great experience to play the largest organ in Iceland in the Hallgrímskirkja church.

I think I was able to soak up the normal rhythm of the day through my assigned Icelandic friend, which I hope will stay with me for a lifetime. I got to know their family way of spending time with ice creams, cinema, relaxing in the pools and typical food.

I consider the whole project very successful, even in a time of many complications in the covid regime. I believe I have gained valuable information, experience that I will apply in my future professional and personal life.

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