



**Ministerstvo financí  
České republiky**

## REPORT ON THE PROJECT OF COOPERATION IN EEA GRANTS

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**Project:** Comparison of energy potential of Iceland and the Czech Republic

**Date:** 1/ 8/ 2021 – 31/8/ 2022

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

**Place:** Iceland and the Czech Republic

### Czech part of the project (2021)

Sunday

The Icelanders arrived in the Czech Republic and we disassembled them and went home.

Monday

The program began at 10 a.m. at school. The school principal gave a speech and we were told what awaited us in the next two weeks. This was followed by a meeting with other participants from Iceland, where we talked about our hobbies

## Tuesday

On Tuesday we went to the Ledvice coal power plant near Teplice. We left early in the morning because the journey took over two hours and one or two stops. The power plant was visible from a distance due to the size of its chimney, which is 140 m long. It was interesting to learn how the coal-fired power plant works and also about its history. The day was beautiful, so when we went to a viewpoint almost as high as the chimney, there was a beautiful view from here. We saw a nearby surface quarry and also a lot of former quarries. Then followed lunch, which was around half past four, when we was there, it was almost dark. Personally, I didn't enjoy it much, and then I was joking that they mixed a little cement instead of butter into the mashed potatoes. The journey home was long after a hard day and getting up early.

## Wednesday .

On Wednesday we were at the Polenská workplace, where we had a discussion about electric cars and electromobility. Lunch was followed by the first project. The project was to be about whether the Czech distribution network is sufficiently prepared for electric cars and whether it has sufficient capacity for charging electric cars. This was followed by a tour of the church of St. Jakub and Dominic played the organ.

## Thursday

On Thursday we went to Dolní Vítkovice, which is part of Ostrava. We went there for about three hours. We visited an old steel plant, which is registered in UNESCO. It was interesting to see where the place where steel melted and cast. And most of all, you felt very small there compared to all those big steel structures. It was a beautiful and interesting tour. Then followed a small world of technology. Where in the old hall which is about five minutes walk from the steel mill made a fun exhibition about steel production. Then we went home on the way back we had a lot of fun and listened to the songs.

## Friday

On Friday we were at the Legionnaires' workplace. We started by telling us the CEZ gentlemen what their plans are for the future. Project number 2 followed. The theme of the project was whether we would be able to switch purely to renewable energy. After lunch we went to visit the town hall in Jihlava where we had a guided tour and then we went for a tour of the catacombs.

## Saturday

On Saturday we were on a day trip in Prague. We had a booked guide who told us something about Wenceslas Square, the Astronomical Clock and other things in the historical center of Prague. Then there was the free program. While most Icelanders went to taste Czech beer

(which they liked), we went to Prague Castle and its surroundings. Evening Prague has its charm and it was very nice to see the "nightlife" of Prague.

Sunday

We had a guided tour of the castle in Lipnice nad Sázavou. And then we went through the granite quarries near the castle where there is an educational trail. When walking along the path, it is possible to see the carved eye, ear and mouth in the abandoned granite quarries. It was a beautiful walk.

Monday

On Monday we went to the Dukovany nuclear power plant. We were originally supposed to go on a tour inside the power plant, but thanks to the covid, we were only at the reception where they released a film about the power plant. It was interesting, but seeing it for yourself would be a different experience. We also visited the Dalešice reservoir, where is the largest sprinkled dam in Central Europe. There they also released a film about how it was built, etc. On the way home we stopped at the Dalešice brewery, which everyone knows from the film Postřižiny.

Tuesday

On Tuesday, we were at the Legionnaires' School, where Icelanders went to school and did something. I don't know what because the first hour and a half was a program just for them. After that we had a lecture by Dana Drábová. With the fact that I sat far away from her and didn't understand her very well, I don't know exactly what she was talking about, but it was supposed to be something about low-emission energy. Lunch was followed by project 3. Where we compared electricity production in our country and in Iceland. The Icelanders told us that day that they would have to leave earlier. I still don't know why.

Wednesday

Departure of Icelanders.

## Icelandic part of the project (2022)

Sunday

Departure from Munich to Iceland. After arriving on the Iceland, we drove about 45 minutes from the airport to Reykjavik, where the host families picked us up. I spent the rest of the day with host family and unpacking.

## Monday

Breakfast at school. After breakfast, they took us after school so we wouldn't get lost there. This was followed by the production of T-shirt printing in groups (three Czechs and three Icelanders). Then we met the school principal. After lunch, we went to another workplace of the school, where they were guided and shown to us by electrical workshops that was very technologically advanced. We visited oldest house on Iceland.

## Tuesday

Visit to the HELLISHEIÐARVIRKJUN geothermal power plant that can make 303MV per day. Where they told us how it works and its features, it was interesting to learn how it works. We had unlimited pizza for lunch, so everyone ate a little there. After lunch we spent a walk around the city. Then we drove to the nearby parking lot, from which we went to the natural hot springs. The road there was about 3km uphill, but it was worth it. We spent about 3 hours in the hot springs. We also rolled the rest of the snow, which had not yet melted. Between rolling we went to warm up in the spring. The way to accommodation followed.

## Wednesday

We spent Wednesday at school. Where we attended several lectures on Iceland's energy and one on CARBIFIX technology (conversion of CO<sub>2</sub> into stone, for more information here <https://www.carbfix.com/> ). Project 2 followed. After the project, we discussed the energy future of Iceland with the Minister for the Environment and Natural Resources. Their vision is that they will continue to expand they ecological energy

## Thursday

We spent Thursday as well as Wednesday at school. We started with a lecture on sustainable energy and its problems and Iceland and wind farms. This was followed by a lecture on wind turbines and usage of them. Project 3. After lunch we visited the Icelandic National Museum with exhibition: Evolution of civilization on Iceland.

## *Friday*

We took part in the celebration of their graduation. This was done so that we walked around Reykjavík and performed tasks for which we received points. The goal was to collect as many points as possible.

## Saturday

We went to the Westman Islands. The journey there took about 2 hours + the ferry journey took about 45 minutes. The first thing after arriving on the island was lunch. After lunch, the guide and we went around part of the island. The guide told us something about the eruption of a volcano on the island in 1973. The tour ended at the museum. The theme was the eruption of a volcano on the island, period photos, etc. After the museum we went to

one of the volcanic cones, from which there was a beautiful view of the island. Then we went back to the port and the way to accommodation followed.

#### Sunday

We had time off. So the host family and I went on a trip to the volcano that erupted last year. It was a small eruption, but when one saw what area the lava filled, then one wonders what a large eruption looks like. It was interesting and I learned something about the volcanic activities of the region.

#### Monday

It rained all Monday. That day we had a full day trip to the Seltún geothermal area (same area where I was on Sunday). We just didn't go to the volcano, but we looked at it from below. We went to the bridge between the continents. Bridge that connects the two lithospheric plates hence the name. And then we visited the Blue Lagoon. Blue Lagoon's water can reach up to 39 degrees and contains silica and sulfur.

#### Tuesday

We spent Tuesday at school. We started with a lecture about the nature of Iceland and that the construction of other hydropower plants could damage nature. Lunch and Project 4 followed.

#### Wednesday

Bus trip along the Golden Circle. We went to one of the largest lakes in Iceland, which lies between two lithospheric plates, which are about 1 km apart. We had lunch on the farm. We also visited the waterfalls, which have a water flow of up to 140m<sup>3</sup> in the summer. On the way back we stopped at a geothermal spa.

#### Thursday

We spent Thursday tours around Reykjavik. We started with a tour of the largest church in Iceland, which is next to the school and is called Hallgrímskirkja. Then we drove to Perlan. There are five large hot water tanks on a hill in the middle of Reykjavik. We had a hamburger for lunch again. After lunch we went to deCODE genetics. Which is a world leader in researching and understanding the human genome.

#### Friday

We had Icelandic and Czech day. And after lunch we went shopping for sweets.

#### Saturday

We went to Fly Over Iceland which is a very good 5D cinema. One of the best experiences. Then we went to school, where we played an escape game. This was followed by the completion of the project and the distribution of certificates of completion.

Sunday

Departure and way home.

Breakdown of the project: After our visit to Iceland, we came to the conclusion that Iceland is energetically self-sufficient and does not emit CO<sub>2</sub> into the air during the production of electricity, which is not the case in the Czech Republic.

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