

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

Department of Economics



Abstract of Bachelor Thesis

Economy of Wind Energy in the Czech Republic and
Germany

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Summary

The goal of this bachelor thesis is to conduct analysis of energy in the Czech Republic and Germany with focus on wind energy. Also, energetic situation in both countries is compared. To conduct analysis, data of both countries were firstly gathered separately and then compared with each other.

The thesis is divided into two parts. First part, theoretical part, explains basic terms connected with energy with focus on wind energy and its generation. Second part, analytical part, is based on results of comparison and description of situation in the Czech Republic and Germany. These results are shown in graphs.

Keywords

Czech Republic, Germany, Renewable energy, Wind energy, Economy of wind energy

Objectives

The aim of the thesis is to conduct analysis of different sources of energy with focus on renewables, mainly wind, in the Czech Republic and Germany and to compare positions of both countries. Energetic situations in both countries are described and evaluated and their participation in target of European Union is described as well including future plans of the Czech Republic and Germany. Special attention is paid to wind energy and its generation.

Methodology

In the thesis were used comparative and descriptive methods. The thesis was based on exploration of literature, publications of wind organizations in Europe and worldwide and Internet resources.

Firstly, in the theoretical part were explained and clarified basic terms according to gathered data. Also there were described situations in both countries, basic costs in Europe in general and European Union targets.

In analytical part were used comparative and descriptive methods. There were listed costs of wind energy compared to costs of energies from coal and gas, capacities in Germany and the

Czech Republic from past three years, and production of energy in both countries in year 2013. Afterwards graphs were created to show shares of different sources of energy in the Czech Republic and Germany.

Conclusion

Wind energy industry has been growing worldwide for past couple years but each country has different possibilities. The Czech Republic and Germany are very different countries in their nature and area even though they are sharing borders. Germany has access to seas from the North, which the Czech Republic does not have. That has a huge effect on the total capacity of wind turbines, because offshore wind turbines are very important due to stronger wind on seas and usually, they have higher capacity than smaller onshore wind turbines. In the Czech Republic and in Germany are used feed-in tariffs, which ensure the investors in the RES to have a certain amount of investment back. In the Czech Republic are used also so-called “green bonuses”.

The Czech Republic and Germany have different energy policy; Czech Republic is planning to build new nuclear reactors in Dukovany and Temelín while Germany is planning to shut down all of their nuclear power plants by 2022 in response to what happened in Fukushima in 2011. In both countries is highest the share of coal-fired power plants around 50%, but the shares of RES are rising. In comparison, the total gross electricity production in Germany is almost seven times higher than in the Czech Republic, so even though the share of coal is higher in the Czech Republic, Germany still produced more energy from coal in year 2013.

Both the Czech Republic and Germany are member states of the European Union and therefore they have the same RES target to fulfil but with different conditions. Both countries are planning to focus on generating more and more energy from RES and to contribute to European Union target called 20-20-20. All member states issue a progress report each two years, which show whether the member countries have reached their interim targets. The latest progress reports of the Czech Republic and Germany show that both countries are above their interim target and therefore that they are successful.

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