

Energy security is an important and current issue that resonates especially in resource-poor countries. In these countries, it is crucial to ensure a stable energy supply in order to maintain economic stability and ensure future economic growth. Germany is a state with low energy reserves (apart from coal reserves), and therefore this work focuses on German energy security in gas sector. The aim of this master thesis is to evaluate the current level of energy security in Germany in natural gas sector and to point out future potential threats arising from the realization of Nord Stream gas pipeline. In order to meet this goal, a new analytical framework is created, which evaluates gas security in terms of both short-term and long-term energy security indicators. This framework is based on several studies, primarily on the Model of Short-term Energy Security published by International Energy Agency. The framework is further extended by other studies dealing with the long-term dimension of energy security. Second part of the thesis deals with the role of natural gas in German energy transition (so-called *Energiewende*). Text examines the importance of natural gas in the situation of gradual disconnection of nuclear and coal capacities and in the ongoing decarbonization of the German economy. It was found that Germany is currently achieving a medium level of energy security in the gas sector. The country should strengthen the domestic and external resilience of energy system. The main threat is the high import dependency (96 %) and rising share of the Russian gas on total deliveries. Another threat is the potential growth in demand for natural gas as a result of German *Energiewende*, which would have a negative impact on the indicators of import dependence, daily send-out capacity from gas storage and indicator of supplier diversification (in case there will be only three major current suppliers on the market). Nord Stream pipeline improves the indicator of import infrastructure, but on the contrary it has a negative effect on the indicator of supplier diversification. The gas pipeline has a positive effect on the long-term indicator of securing gas reserves. When examining the role of natural gas in *Energiewende*, it was found that natural gas plays a significant role. Its highest potential is especially in short to medium term, when it can compensate for the loss of capacity of coal and nuclear resources. The potential for reducing emissions lies primarily in the replacement of coal in the heating and power sector.