With increasing frequency of problems caused by global climate change, the scientific community is trying to find possible solutions to reduce greenhouse gas emissions into the atmosphere. One of the possible solutions of this problem is considered the system of separation, transportation and long-term storage of CO₂, called CCS – Carbon Capture and Storage. This work is a literature review of CCS in order to determine the possible use of CCS in the Czech Republic. There is a basic system description of CCS, the possible environmental risks associated with it, and finally summarize of the prospects of deployment CCS technology in the Czech Republic.