

Public acceptance of CCS/CCUS technology in onshore areas in NW Poland

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Abstract. The research is a part of the AGaStor project realized in AGH-UST and University of Stavanger. The aim of the paper is to present social aspects of the developing the CCS/US technology in Poland described as social awareness (SA) and public acceptance (PA). The main research questions of the CCS/US PA concentrates on knowledge, acceptance of the technology, risks and benefits, the existence of NIMBY movements [1].

The quantitative method of analysis of CCS PA is a survey method. The most of the former research was realized only in small communities [2, 3]. The AGaStor research describes the mezzo-social level of the CCS/US PA. The randomized sample ($N = 695$) was made in Zachodniopomorskie region (West-North Poland) in 2021. It allows to recognize differences of the level of CCS/US PA in different in that part of Poland. The main variables which influence CCS/US PA are: place of living, education, economic situations and general worldview of the respondents.

The results show the correlation between place of living and CCS PA (higher PA in big cities); education with CCS SA (higher declarations of knowledge and SA by well educated people); NIMBY potential in villages and small towns, and the pro-technological worldview with the CCS PA. The research points that the main social obstacle is the lack of knowledge about the CCS/US technology. Even respondents who declare the general acceptance of new technologies in energy production are ambivalent towards acceptance of CCS/US.

Keywords: carbon capture and storage (CCS), social awareness of CCS/CCUS, public acceptance of CCS/CCUS, social research of the public acceptance of new technologies.

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