



Project No:
764697

Project acronym:
CHEERS

Project full title:
Chinese-European Emission-Reducing Solutions

Type of Action: **RIA**

Call/Topic:
European Horizon 2020 Work Programme 2016 – 2017, 10. 'Secure, Clean and Efficient Energy',
under the low-carbon energy initiative LCE-29-2017: *CCS in Industry, including BioCCS*

Start-up: 2017-10-01
Duration: 72 months

Deliverable

D6.2 Preparations for 3MWth CLC-CCS demonstration

Due submission date: 2021-12-31

Actual delivery date: 2021-12-18

Organisation name of lead beneficiary for this deliverable:
DONGFANG, TSINGHUA

| Project funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 764697, and co-funded by the Chinese Ministry of Science and Technology (MOST) | | |
|---|---|---|
| Dissemination Level | | |
| PU | Public | |
| CO | Confidential, only for members of the consortium (including the Commission Services and MOST) | |
| INT | Confidential, only for members of the consortium | X |

Abstract for publication on the website of CHEERS

CHEERS conforms to the European Horizon 2020 Work Programme 2016 – 2017, 10. 'Secure, Clean and Efficient Energy', under the low-carbon energy initiative (LCE-29-2017: CCS in Industry, including BioCCS). The ambition is to improve the efficiency of CO₂ capture in industry, and help ensuring sustainable, secure, and affordable energy.

The action involves a detailed Engineering, Procurement, Construction and Commission (EPCC) is leaded by DBC. DBC has organised a leading team to manage the EPCC, and a wording team to guide the EPCC project, which consists of an engineering team, a procurement team, a construction team, and a commission team, to conduct. The EPCC will form a series of contracts for completing the detailed engineering. Now, the EPCC has got a permission from the local government. The bidding process of civil engineering has been completed. The bidding process of main equipment processing has been completed. The ground foundation and geotechnical engineering investigation were finished. A Hazard and Operability (HAZOP) study and a Layer of Protection Analysis (LOPA) study of the 3 MWth demonstration plant in the operating environment were followed. The HAZOP considers all potential risks connected to the demonstration plant operation, and necessary and possible measures are proposed to protect the operators, environment, and devices against damage caused by the activity. All recommendations developed during the HAZOP sessions are included in the HAZOP actions. Based on HAZOP, the LOPA is reported to decrease the risks, and actions have been formulated to ensure that all risks will fall within the acceptable range during the demonstration plant operation. Detailed risk/hazard identification and analysis are provided in the actions.

The CHEERS project is financed by the European Union's Horizon 2020 research and innovation programme under grant agreement No 764697, and co-funded by the Chinese Ministry of Science and Technology (MOST). CHEERS started 1 October 2017 and is scheduled to end by September 2023. The estimated budget is 16 mill. EUR.