# GIIGNL 76<sup>TH</sup> TSG MEETING LCO2 TERMINALLING TASK FORCE

28/11/2024



RESTREINT

**INTERNE** 

SECRET







#### **GIIGNL** task force LCO2 Terminalling - members

#### Task force members:

- Elengy (Co-coordination): Ghislain Caudron, Yann Le Goc
- Engie CRIGEN (Co-coordination): Audrey Hubert, Florencia Cappuro, Paul-Emmanuel Decroes, Hugues Malvos
- BP: Richard Ellis
- **Dunkerque LNG:** Sylvain Planteline
- Equinor: Ms Jingshhi (Ruan) Yang
- Fluxys LNG: Kim Stevens, Siegfried Spanhove
- National Grid: Philips Goke
- Osaka Gas: Mr Masayuki (Masa) Hirabayashi
- Sempra Infrastructure: Anthony Scaraggi
- Shell: Ms. Raha Alikhanbagi, Pablo Vega Perez
- Tokyo gas: Shogo Shimizu
- TotalEnergies: Olivier Pasteau, Stéphane Dubois du Bellay, Ginès Petit



#### GIIGNL task force LCO2 Terminalling - objectives

The task force focuses on CO<sub>2</sub> liquefaction, storage and export from LNG terminals



#### Task force's objectives:

- Evaluate the challenges and synergies brought by combining onshore LNG receiving and CO2 liquefaction terminals.
- Define design principles considering the overall CO2 chain from capture to re-injection.
- Focus on onshore LNG Terminals but FSRU specificities will only be studied in a second phase if interest is confirmed.



#### GIIGNL task force LCO2 Terminalling – progress status

#### What has been done so far?

- KOM occurred on the 3rd of June 2024
- 2 work meetings were held since then in July and in October
- Participants agreed on the table of content
- First draft of some parts have been written
- The report writing and review in ongoing
- Next meeting in planed for January

The coordination team would like to thank the participants for their strong contribution to the tasks force.



## **GIIGNL** task force LCO2 Terminalling – Contents

#### **Table of content**

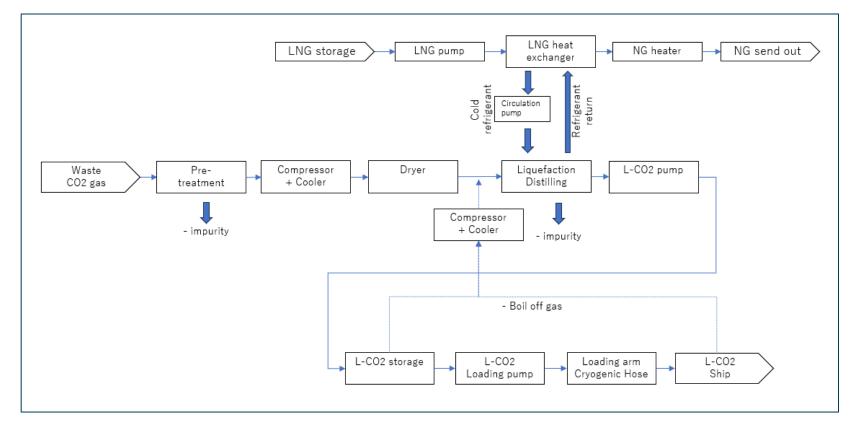
- 1. Introduction: What is LCO2 as a product and its characteristics?
- 2. Interfaces between a receiving LNG terminal and a LCO2 terminal
  - Cold synergy LNG / LCO2
  - Safety specificities
  - Impact on LNG operations
- 3. Opportunities
  - Advocacy
  - Projects mapping
- 4. Conclusions and recommendations



## **GIIGNL** task force LCO2 Terminalling – Contents

### Cold synergy LNG / LCO2 - details

- 1. Cold integration concept
- 2. Operational needs
- Terminal schematic
- Design recommendations, codes & standards





## **GIIGNL** task force LCO2 Terminalling – Contents

#### Impacts on operations

- 1. Risk of CO2 freezing
- 2. Low and medium pressure management
- 3. Jetties & loading facilities

