

Annex A Glossary

Spreadsheet 1 - Investment Project Main Info

This section lists all the main information of all the projects submitted to TYNDP 2022.

- > **PRJ Code**: it indicates the common code of the “functional project” (PRJ) whose different submissions are part of;
- > **PRJ Name**: it indicates the common name of the “functional project” (PRJ) whose different submissions are part of;
- > **PRJ Status**: it is the maturity status of the “functional project”. This is calculated as the minimum between the maturity status of the different investments composing the PRJ aggregation (e.g. if investment 1 is “FID” and investment 2 is “(non-FID) Less-Advanced”, the PRJ aggregating the two submissions will be “Less-Advanced”);
- > **Code**: TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name**: TYNDP 2022 investment name;
- > **Country**: hosting country where the investment will be built. In case of a single subject promoting an investment crossing more countries only the first country concerned is displayed;
- > **Promoter**: the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Maturity status**: reflects the level of advancement of the submitted investments. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced¹;
- > **PCI 5th List**: indicate whether the submission is part of the latest available (3rd) Project of Common Interest (PCI) List ([link](#));
- > **PCI 5th List Code**: the related PCI code as indicated in the PCI list;
- > **Commissioning Year First and Last**: in case of investments bringing more than one capacity increment to a specific point, these fields indicate the commissioning year of the first capacity increment of the investment and that of the last capacity increment to be commissioned;
- > **Project CAPEX Confidential**²: indicates the confidentiality status of the CAPEX as expressed by the promotor during the TYNDP 2022 project collection. As such, there are two different statuses possible:

¹ More details on the maturity status (“project status”) definition are available in the ENTSOG Practical Implementation Document at [this link](#)

² During the TYNDP 2022 Project Data Collection, promoters were asked to indicate whether the project CAPEX was confidential or not. Annex A displays the CAPEX provided by the promoters (as of November/December 2021, end of TYNDP 2022 project collection), unless declared confidential. The amounts provided can differ from the figures used by the project promoters in other contexts, where costs can be updated and/or evaluated using different methodologies or assumptions.

- **Non-Confidential:** means that the project promoter marked the CAPEX information as “non-confidential” so the CAPEX figure is published in the column “Project CAPEX”;
- **Confidential:** means that the project promoter marked the CAPEX as “confidential” so the CAPEX figure is not published in the column “Project CAPEX”;
- > **Project CAPEX (in million EUR):** CAPEX information is published in case of investments whose CAPEX has been submitted for TYNDP 2022 as “non-confidential”. For those whose CAPEX has been submitted as “confidential”, the respective costs are not published;
- > **CAPEX Incurred:** indicates the amount in million EUR of the expected CAPEX which has been already incurred at the time of the project collection phase;
- > **CAPEX Range (in %):** indicates the degree of variability of the costs by stating how much it can vary to the up- or downside, in percentage of the cost provided;
- > **Project OPEX Confidential³:** indicates the confidentiality status of the OPEX as expressed by the promotor during the TYNDP 2022 project collection. As such, there are two different statuses possible:
 - **Non-Confidential:** means that the project promoter marked the OPEX information as “non-confidential” so the OPEX figure is published in the column “Project OPEX”;
 - **Confidential:** means that the project promoter marked the OPEX information as “confidential” so the OPEX figure is not published in the column “Project OPEX”.
- > **Project OPEX (in million EUR per year):** OPEX information is published in case of investments whose OPEX has been submitted for TYNDP 2022 as “non-confidential”. For projects whose OPEX has been submitted as “confidential”, the respective costs are not published;
- > **OPEX Range (in %):** Indicates the degree of variability of the OPEX costs by stating how much it can vary to the up- or downside, in percentage of the cost provided;
- > **Shareholders:** Information on different shareholders of the submitted investment;
- > **Project Website:** provides a link to the website (if such website exists);
- > **Is part of NDP:** indicates whether a submission is part of a National Development Plan (NDP) or not;
- > **NDP number:** indicates the reference number or the name/label with which the promoter submission is identified in the NDP.

³ During the TYNDP 2022 Project Data Collection, promoters were asked to indicate whether the project OPEX was confidential or not. Annex A displays the OPEX provided by the promoters (as of November, December 2021, end of TYNDP 2022 project collection), unless declared confidential. The amounts provided can differ from the figures used by the project promoters in other contexts, where costs can be updated and/or evaluated using different methodologies or assumptions.

Spreadsheet 2 - TRA

This section includes all the main technical information for pipeline (including compressor stations) submissions.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Maturity status: reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > Section: the realisation of the same investment may be characterised by different sections/phases;
- > Length, Diameter and Compressor Power: with reference to pipeline investments they indicate the length (in km) and the diameter (mm) while for compressor stations (CS) the installed compressor power (MW) is indicated;
- > Suited for increasing percentages of H2: indicates if the investment is suitable to transport increasing percentages of H2 (possible up to 100%);
- > Fuel to gas switch: indicates if the investment contributes to the fuel to gas switch. This refers to the replacement of more polluting energy carriers by gas in a country or specific area;
- > Sourcing Country: indicates gas sources / production countries, which will feed the investment;
- > Sourcing Background: further information on sourcing background.

Spreadsheet 3 - LNG

This section includes all the main technical information for LNG terminal investments.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > LNG Facility: indicates the name/location of the LNG facility;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Maturity status: reflects the level of advancement of the submitted investments. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced⁴;

⁴ More details on the maturity status ("project status") definition are available in the ENTSG Practical Implementation Document at [this link](#)

- > Project Phase: the realisation of the same investment may be characterised by different phases;
- > Reloading Ability: whether the LNG terminal investments will also have ship reloading;
- > Project Yearly Volume: the expected increment in the maximum yearly volume that the terminal can regasify (in bcm/y); This represents also the capacity figure to be used for modelling purposes.
- > Project Ship Size: the maximum size of the ship the terminal will be able to receive (in m3 LNG);
- > Project Storage Capacity: the maximum size of the LNG terminal tank (in m3 LNG);
- > Suited for increasing percentages of H2: indicates if the investment is suitable to handle increasing percentages of H2 (possible up to 100%);
- > Fuel to gas switch: indicates if the investment contributes to the fuel to gas switch. This refers to the replacement of more polluting energy carriers by gas in a country or specific area;
- > Sourcing Country / LNG: indicates gas sources / production countries, which will feed the investment;
- > Sourcing Background: further information on sourcing background.

Spreadsheet 4 – UGS

This section includes all the main technical information for Underground storage submissions.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > UGS Facility: name/location of the UGS facility;
- > Type: type of the storage facility;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Maturity status: reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > Project Phase: the realisation of the same investment may be characterised by different phases;
- > WGV: working gas volume of the storage [mcm];
- > Withdrawal Capacity: withdrawal capacity proposed by the investment [mcm/d];
- > Injection Capacity: injection capacity proposed by the investment [mcm/d];
- > Suited for increasing percentages of H2: indicates if the investment is suitable to store increasing percentages of H2 (possible up to 100%);

- > **Fuel to gas switch:** indicates if the investment contributes to the fuel to gas switch. This refers to the replacement of more polluting energy carriers by gas in a country or specific area.

Spreadsheet 5 – HYD

This section includes all the main technical information for investments for new or repurposed infrastructure to carry hydrogen.

- > **Code:** TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name:** TYNDP 2022 investment name;
- > **Promoter:** the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Subcategory:** Type of the HYD investment;
- > **Project description:** provides the description of the HYD investment;
- > **Maturity status:** reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > **Section Name:** the realisation of the same investment may be characterised by different phases;
- > **Technical Parameters:** provides the technical parameters of the HYD investment;
- > **Increase hydrogen transport capacity at a border by 10%:** indicates if the investment is expected to increase the hydrogen transport capacity at a border by 10%;
- > **Sourcing Country:** indicates gas sources / production technique, which will feed the investment;
- > **Sourcing Background:** further information on sourcing background.

Spreadsheet 6 – RET

This section includes all the main technical information for investments for retrofitting infrastructure to further integrate hydrogen.

- > **Code:** TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name:** TYNDP 2022 investment name;
- > **Promoter:** the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Subcategory:** Type of the RET investment;
- > **Project description:** provides the description of the RET investment;
- > **Maturity status:** reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;

- > **Section Name**: the realisation of the same investment may be characterised by different phases;
- > **Technical Parameters**: provides the technical parameters of the RET investment;
- > **Sourcing Country** indicates gas sources / production technique, which will feed the investment;
- > **Sourcing Background**: further information on sourcing background.

Spreadsheet 7 – BIO

This section includes all the main technical information for biomethane development projects.

- > **Code**: TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name**: TYNDP 2022 investment name;
- > **Promoter**: the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Subcategory**: Type of the BIO investment;
- > **Project description**: provides the description of the BIO investment;
- > **Maturity status**: reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > **Section Name**: the realisation of the same investment may be characterised by different phases;
- > **Technical Parameters**: provides the technical parameters of the BIO investment;
- > **Sourcing Country** indicates gas sources / production technique, which will feed the investment;
- > **Sourcing Background**: further information on sourcing background.

Spreadsheet 8 – OTH

This section includes all the main technical information for other infrastructure related investment as defined in the Practical Implementation Document for TYNDP 2022.

- > **Code**: TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name**: TYNDP 2022 investment name;
- > **Promoter**: the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Subcategory**: Type of the OTH investment;
- > **Project description**: provides the description of the OTH investment;

- > **Maturity status**: reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > **Section Name**: the realisation of the same investment may be characterised by different phases;
- > **Technical Parameters**: provides the technical parameters of the OTH investment;
- > **Sourcing Country**: indicates gas sources / production technique, which will feed the investment;
- > **Sourcing Background**: further information on sourcing background.

Spreadsheet 9 – Time Schedule

This section provides the start and/or end date of the main investment activities/milestones.

- > **Code**: TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name**: TYNDP 2022 investment name;
- > **Host Country**: hosting country where the investment will be built. In case of a single investment crossing more countries only the first country concerned is displayed;
- > **Promoter**: the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Maturity status**: reflects the level of advancement of the submitted investment. An investment can be FID, (non-FID) Advanced or (non-FID) Less-Advanced;
- > **Pre-Feasibility Starts**: date when the Pre-Feasibility Study⁵ started or will start;
- > **Pre-Feasibility Ends**: date when the Pre-Feasibility Study ended or will end;
- > **Pre-Feasibility Info Not Available**: in case no data are available for the start and end of the activity, the reason is provided here;
- > **Feasibility Starts**: date when the Feasibility Study⁶ started or will start;
- > **Feasibility Ends**: date when the Feasibility Study ended or will end;
- > **Feasibility Info Not Available**: in case no data are available for the start and end of the activity, the reason is provided here;
- > **FEED Starts**: date when Front End Engineering Design⁷ started or will start;

⁵ By Pre-Feasibility study we understand a preliminary study undertaken to determine if it would be worthwhile to proceed to the feasibility study stage and/or to determine, analyse, and select the best (technical and financial) business scenarios.

⁶ By Feasibility study we understand an analysis and evaluation of a proposed project to determine if it (1) is technically feasible, (2) is feasible within the estimated cost, and (3) will be profitable.

⁷ By FEED we understand the basic engineering which comes after the Feasibility study. During this phase, the engineering documentation of enough quality and depth is produced to adequately define the project requirements for detailed engineering, procurement and construction of the facility and to support an accurate

- > **FEED Ends:** date when Front End Engineering Design ended or will end;
- > **FEED Info Not Available:** in case no data are available for the start and end of the activity, the reason is provided here;
- > **Permitting Phase Starts:** date when the Permitting Phase started or will start;
- > **Permitting Phase Ends:** date when the Permitting Phase ended or will end;
- > **Permitting Info Not Available:** in case no data are available for the start and end of the activity, the reason is provided here;
- > **Supply Contracts Ends:** date when the Supply Contracts ended or will end;
- > **Supply Contracts Info Not Available:** in case no data are available for the end of the activity, the reason is provided here;
- > **FID:** date when the Final Investment Decision was or will be taken;
- > **FID Info Not Available:** in case no data are available for the end of the activity, the reason is provided here;
- > **Construction Starts:** date when construction works started or will start;
- > **Construction Ends:** date when construction works will end;
- > **Construction Info Not Available:** in case no data are available for the start and end of the activity, the reason is provided here;
- > **Commissioning Starts:** indicates the commissioning year of the first capacity increment of the investment;
- > **Commissioning Ends:** indicates the commissioning year of the last capacity increment to be commissioned;
- > **Grant Obtention Date:** date when a grant for studies/works has been obtained;
- > **Schedule Status:** compared to TYNDP 2020 commissioning year, the investment can be now “on time”, “ahead of schedule”, “delayed” or “rescheduled”;
- > **Delay Explanation:** in case investment is delayed, here is the reason for the delay;
- > **Comment:** comment on project schedule.

Spreadsheet 10 – Capacities

This section provides information related to the technical capacity increments assigned to the TYNDP 2022 investments.

- > **System:** Clarifies if the expected capacity created by the investment refers to transported Methane (CH₄)/Biomethane (BIO) or Hydrogen (H₂);
- > **Point Category:** indicates the type of interconnection point to which the respective capacity increment is provided;

project cost estimate. This project phase is typically also used to support the final investment decision (FID) for the project.

- > **Point:** provides the name of the interconnection point to which the respective capacity increment is provided;
- > **From System:** indicates the system which sends the respective capacity;
- > **To System:** indicates the system which receives the capacity increment;
- > **Code:** TYNDP code of each single TYNDP 2020 submitted investment;
- > **Project Name:** TYNDP 2020 investment code;
- > **Promoter:** the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Status:** reflects the level of advancement of each capacity increment (and not of the investment as a whole). Therefore, an investment can have several capacity increments with different maturity statuses. A capacity increment can be FID, non-FID Advanced or non-FID Less-Advanced;
- > **Operator:** indicates the name of entity which will operate the capacity increment;
- > **Commissioning year:** indicates the commissioning year of the capacity increment; **Capacity:** indicates the value of the capacity increment (in GWh/d) to be used for modelling (for LNG capacity please refer to “Project Yearly Volume” definition under Spreadsheet 3 LNG Terminals).

Spreadsheet 11 – Enablers

This section lists the investments which are considered enablers⁸ and the enabled projects⁹.

- > **Enabler Code:** TYNDP code of the enabler project;
- > **Enabler Project Name:** name of the enabler project;
- > **Enabled Code:** TYNDP code of the enabled project;
- > **Enabled Project Name:** name of the enabled project;
- > **Enabler Relationship:** explains the relation between Enabler and enabled project.

⁸ A project can be considered as an Enabler Project when it is necessary for another Project (the Enabled Project) to realize its full capacity potential.

⁹ An Enabled Project is a project which cannot realize its incremental capacity potential partially or fully within an Entry/Exit system at an Entry/Exit point (IP point; UGS Entry/Exit Point; LNG Entry/Exit Point) without an Enabler Project.

Spreadsheet 12 – Enhancers

This section lists the investments which are considered enhancers¹⁰ and the enhanced projects when submitted by the same promoter.

- > Enhancer Code: TYNDP code of the enhancer project;
- > Enhancer Project Name: name of the enhancer project;
- > Enhanced Code: TYNDP code of the enhanced project;
- > Enhanced Project Name: name of the enhanced project;
- > Enhancer Relationship: explains the relation between enhancer and enhanced project.

Spreadsheet 13 – National Development Plan Info

This section includes the information related to the inclusion of the investment in the relevant National Development Plan (NDP).

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > Country: hosting country where the investment will be built. In case of a single investment crossing more countries only the first country concerned is displayed.
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Maturity status: reflects the level of advancement of the submitted investment. An investment can be FID, non-FID Advanced or non-FID Less-Advanced;
- > PCI 5th List: indicate whether the investment is part of the latest available (3rd) Project of Common Interest (PCI) List ([link](#)),
- > PCI 5th List Code: the related PCI code as indicated in the PCI list;
- > Is Part of an NDP: indicates whether an investment is part of a National Development Plan (NDP) or not;
- > NDP Number: indicates the reference number or the name/label with which the investment is identified in the NDP;
- > NDP Name or Reason for non-NDP inclusion: indicates the full NDP name or the reason the investment is not included in the latest approved NDP;
- > NDP Website: indicates the URL/link of the NDP website;
- > NDP Release Date: indicates the date when the NDP has been released.

¹⁰An Enhancer is a project that would allow the main project (enhanced project) to operate at higher rate than when main project operates on its own basis, increasing the benefits stemming from the realisation of the main investment. An enhancer, unlike an enabler, it is not strictly required for the realisation of the main project

Spreadsheet 14 – CBCA & CEF

This section provides information on any Intergovernmental Agreements concluded for the investment.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > Host Country: hosting country where the investment will be built. In case of a single investment crossing more countries only the first country concerned is displayed;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > PCI 5th List Code: indicate whether the investment is part of the latest available Project of Common Interest (PCI) List ([link](#));
- > Previous PCI List: indicates if the investment was part of previous PCI lists;
- > CBCA Decision: indicates if the investment received a Cross-Border Cost Allocation (CBCA) decision;
- > CBCA Decision Date: indicates the date when the CBCA decisions was issued;
- > CBCA decision website: indicates the website where the CBCA decision is available;
- > Benefiting Countries: indicates the net benefiting countries of the investment as identified in the CBCA decision;
- > Bearer Countries: indicates the net bearers countries of the investment as identified in the CBCA decision;
- > CBCA Additional Comments: additional information on CBCA;
- > Applied for CEF: indicates if the investment applied for financial support for studies and/or construction related works via the Connecting Europe Facility (CEF) programme which is a key EU funding instrument;
- > Grant for studies: indicates if the investment applied for grants for studies under CEF;
- > Amount received for studies: indicates the amount of money in MIn EUR that was granted for studies;
- > Grant for works: indicates if the investment applied for grants for works under CEF;
- > Amount received for works: indicates the amount of money in MIn EUR that was granted for works;
- > Intention to apply for CEF: in case promoter has not applied yet for financial support from CEF, it indicates if the promoter plans to apply for CEF funds in the future;
- > Financial support for other programs: indicates if the investment received financial grants via programmes other than CEF;
- > Other financial assistance: indicates if the investment received other financial assistance;
- > CEF Additional Comments: additional information on CEF.

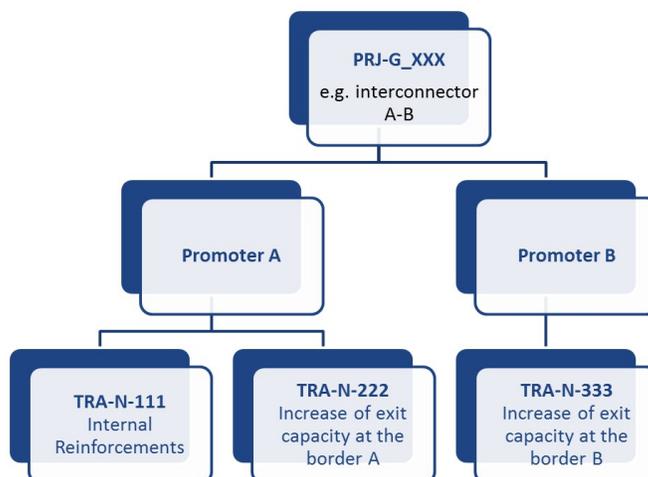
Spreadsheet 15 – Intergovernmental Agreements

This section provides information on any Intergovernmental Agreements proposed for the investment.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Agreement: the type/name of agreement proposed for the investment;
- > Signed: indicates if the agreement is signed by the involved parties;
- > Signature Date: indicates the date of the signature, if the case;
- > Description: provides a description of the agreement.

Spreadsheet 16 - PRJ Groups Main Info

Often, a number of functionally-related investment items need to be implemented for their benefit(s) to materialise. For example, in case of an interconnector connecting two (or more) countries, two different promoters are usually involved in realising the two sections of the same interconnector. It is clear in this case that the two sections of the interconnector are meant to be built and used unequivocally together. To facilitate ENTSG task in identifying these investments, promoters were asked to indicate whether their submission is part of one common “functional project” like in the example below.



- > PRJ Code: indicates the common code of the “functional project” (PRJ) whose different submission are part of;

- > **PRJ Name:** indicates the common name and of the “functional project” (PRJ) whose different submission are part of;
- > **PRJ Status:** is the maturity status of the “functional project” (PRJ). This is calculated as the minimum between the maturity status of the different investments composing the PRJ aggregation (e.g. if investment 1 is “FID” and investment 2 is “(non-FID) Less-Advanced”, the PRJ aggregating the two submissions will be “non-FID Less-Advanced”);
- > **PRJ Commissioning Year First and Last:** they respectively indicate the commissioning year of the first investment part of the PRJ to be commissioned and of the last investment part of the PRJ to be commissioned;
- > **PRJ Group Description:** indicates the description of the “functional project” (PRJ);
- > **Code of Individual Projects:** TYNDP code of each single investment composing the PRJ aggregation;
- > **Project Name:** TYNDP 2022 name of the single investment part of the PRJ aggregation;
- > **Project Promoter:** the subject (being a private company, a ministry, etc.) promoting the single investment part of the PRJ aggregation;
- > **Host Country:** hosting country where the single investment part of the PRJ aggregation will be built. In case of a single investment crossing more countries only the first country concerned is displayed.

Spreadsheet 17 – Project Expected Impact

This section provides information on project driver, expected benefits and impacts.

- > **Code:** TYNDP code of each single TYNDP 2022 submitted investment;
- > **Project Name:** TYNDP 2022 investment name;
- > **Promoter:** the subject (being a private company, a ministry, etc.) promoting the investment;
- > **Criteria fulfilled and justification:** indicates and justify criteria which can be relevant for an intention to apply for PCI at a later stage. Fields are only filled when promoter stated they intention to apply for the next PCI round;
- > **Specific criteria and justification:** lists specific criteria the project contributes significantly. The specific criteria are (1) Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, (2) Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, (3) Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas, (4) Competition, inter alia through diversification of supply sources, supplying counterparts and routes;
- > **Main Project Drivers:** indicates the main driver which triggered the project;

- > Energy Transition Contribution and justification in case of none of above: gives further information on contribution in case sustainability was selected as main project driver. If the project doesn't contribute to the selectable entries, promoter justifies why the project is mainly driven by sustainability;
- > Comments on Project Driver: describes and gives further information on project driver;
- > Gasification: indicates if the project contributes to gasification¹¹ of a country/area/sector;
- > Gasification Comments: in case the project contributes to gasification further information are provided here;
- > Project Expected Benefits: provides the project expected benefits;
- > Impacted Countries Information: lists impacted countries and gives further information;
- > Creation of New Jobs: describes and when possible quantifies new jobs that will be created by the project;
- > Positive Impact on Climate Change: describes and if possible quantifies positive impact on climate change;
- > Negative Impact on Climate Change: describes and if possible quantifies negative impact on climate change;
- > New Digital Solutions: indicates if project includes new digital solutions;
- > Details Digital Solutions: in case a project includes new digital solutions further information are provided here;
- > Integration with other Networks: indicates if the project enables the integration with other networks like electricity, heating, water or telecommunication;
- > Details to other Networks: provides further details in case project enables the integration with other networks;
- > Further contribution: lists further contributions by using the following criteria (1) network security and quality of supply by improving the efficiency and interoperability of gas transmission and distribution in day-to-day network operation by among others, addressing challenges resulting from the injection of gases of different qualities through the deployment of innovative technologies and cybersecurity, (2) market functioning and customer services, (3) facilitating smart energy sector integration through the creation of links to other energy carriers and sectors and enabling demand response (4) none of the above;
- > Justification in case none of the above: provides a justification in case none of the above is in the previous column.

¹¹ Gasification describes a development where a country or an isolated area of a country not yet reached by gas get access to gas. It can also means that gas gets accessible for a specific sector and relaces other fuels.

Spreadsheet 18 – Methane Emissions Mitigation Measures

This section provides information on measures to mitigate methane emissions. This section is only relevant for project emitting methane emissions.

- > Code: TYNDP code of each single TYNDP 2022 submitted investment;
- > Project Name: TYNDP 2022 investment name;
- > Promoter: the subject (being a private company, a ministry, etc.) promoting the investment;
- > Leakage reduction: indicates if the design and construction considers the minimization of connections and components that commonly leak;
- > Measures for recapture and reuse: indicates if the design and construction includes measures for recapture/reuse of gas;
- > Minimization of installed vents (TRA and UGS only): indicates if the design and construction avoid or minimize the installation of vents;
- > Details Minimization of installed vents: provides further information on minimization of installed vents;
- > Prioritization of electric, mechanical and compressed air equipment: indicates if the design and construction of this project prioritize the use of electric, mechanical and compressed air equipment;
- > Use of lower emission devices: indicates if lower emission devices are used where natural gas devices are the best option;
- > Details of lower emission devices: provides further details on lower emission devices that will be used for this project;
- > Dry disconnect couplings for LNG truck loading facilities: indicates if the design and construction for foresee to install dry disconnect couplings in the LNG truck loading facilities;
- > Use of BOG recovery units (LNG only): indicates if the design and construction consider to implement BOG recovery units;
- > Use of automated air/fuel ratio controls: indicates if the installation of automated air/fuel ratio controls is planned;
- > Expected methane emissions and calculation: provides estimation of expected methane emissions of the project and methodology which was used for calculation;
- > Planned LDAR Programs: indicates if periodic leak detection and repair (LDAR) programs for fugitive emissions are planned;
- > Comments LDAR programs: provides further details on leak detection and repair (LDAR) programs;
- > Reduce venting during maintenance: indicates if steps are planned to reduce venting from routine maintenance repairs when pipelines and/or large vessels need to be depressurized during operation;

- > Minimize depressed volume during venting: indicates if the operator plans to minimize the volume that has to be depressed;
- > Use of pumpdowns during maintenance: indicates if the operator plans to use pump downs for depressurizing pipelines and large vessels during maintenance;
- > Use of hot taps: indicates if the operator plans to use hot taps to make connections to pipelines;
- > Portable compressors to avoid vents: indicates if it's planned to use portable compressors to avoid vents during start-up and operations;
- > Flaring unavoidable vented gases: indicates if vented gases will be flared in case venting cannot be avoided;
- > Truck loading nitro or dry coupling (LNG only): indicates if LNG truck loading nitro injection or dry coupling are used to avoid venting;
- > Use of BOG compressors in LNG terminals: indicates if BOG compressors are used under normal operation conditions;
- > Increasing combustion efficiency of natural gas powered engines: indicates if the operator aspires increasing combustion efficiency of natural gas powered engines;
- > Minimization of Start-ups: indicates if the operator aspires to minimize the number of start-ups (engines, turbines and fired heaters);
- > Inventory of flaring activities obligation: indicates if it is mandatory to keep an accurate inventory of flaring activities during start-up and operations;
- > Technical evidence to support mitigation measures: lists technical evidence to support mitigation measures;
- > Additional Mitigation measures: lists additional mitigation measures when available;
- > OGMP 2.0 Reporting Framework: indicates if the promoter(s) joined or intend to join the OGMP 2.0 Reporting Framework;
- > Approx. date of joining OGMP 2.0 (intention only): in case promoter has indicated intention to join the reporting framework, the approx. date of joining OGMO 2.0 is provided here.