



# Wodorowa $H_2$ Mapa Polski

Q & A



OGP GAZ-SYSTEM SA  
Warsaw, dn.21.05.2024 r.











## 1. Where can access the survey questionnaire, rules, GDPR clause and NDA template?

The questionnaire, along with instructions and rules, the GDPR clause and NDA template are available on the GAZ-SYSTEM website ->link:

[GAZ-SYSTEM is developing the Hydrogen Map of Poland](#)

The survey questionnaire can be downloaded as an Excel file. Other attachments are provided in PDF format.


### Downloadable documents:

 HMP 2024 Questionnaire (MS Excel file for download)	
 Instructions for completing the questionnaire	
 Rules of non-binding market screening procedure "Hydrogen Map of Poland"	
 Appendix 1 GDPR Clause	
 Appendix 2 – Non-Disclosure Agreement template(NDA)	

GAZ-SYSTEM: GAZ-SYSTEM: Natural Gas, Pipelreleasesines-> For the Media ->Press releases ->Press - News

18.04.2024

## GAZ-SYSTEM is developing the Hydrogen Map of Poland

Udostępnij 

Hydrogen

PCI

Nordic-Baltic Hydrogen Corridor

All market participants concerned are invited to participate in a non-binding market screening procedure as part of the "Hydrogen Map of Poland" project. The survey results will be considered in hydrogen transmission infrastructure planning and enable the development of a preliminary map of hydrogen pipelines across the country.

# Press releases

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GAZ-SYSTEM is developing the Hydrogen Map of Poland

## 2. Does any government agency support GAZ-SYSTEM's activities?

Yes, the activities undertaken by GAZ-SYSTEM as part of the Hydrogen Map of Poland are supported by the Government Plenipotentiary for Strategic Energy Infrastructure.

### Honorary

### patronage:



Ministry of Climate and Environment  
Republic of Poland

Undersecretary of State, Government Plenipotentiary  
for Strategic Energy Infrastructure

## 3. Is there a fee for participation in the market screening procedure?

Participation in a non-binding market screening procedure carried out as part of the hydrogen Map of Poland is **free of charge**.

## 4. What language should the questionnaire be completed in?

The questionnaire, including all annexes, is available in Polish and English. It can therefore be completed either in **Polish** or **English**.

## 5. Will my data be protected?

GAZ-SYSTEM treats all information obtained from Participants in the course of the Procedure as **confidential**.

**We undertake** to use the information obtained in the course of the Market Screening Procedure **exclusively for the purpose of the Procedure**.

If any confidential information is to be communicated at the meetings, GAZ-SYSTEM declares its readiness to sign a **Non-Disclosure Agreement (NDA)**

The survey data received in the course of the Procedure will be aggregated, analysed and processed by qualified specialists.

## 6. Can the provided NDA template be amended?

**Yes**, indeed, we are open to changes. On our part, the amendments you propose will be reviewed by our lawyers.

Once you have a ready template with your proposed amendments, we would be grateful if you could send it to us at wodor@gaz-system.pl. We will then forward this document to our legal department.

Any changes require consultation, so the sooner this happens the sooner the NDA can be signed.

#### **7. What will be the result/effect of the survey?**

The survey is to provide details and up-to-date information on the locations of hydrogen demand and supply in Poland until 2050. On the basis of reliable market data, it will be possible to develop assumptions related to the construction of infrastructure and **preliminary delineation of hydrogen pipeline routes in Poland** in terms of volume, time and coordinates.

#### **8. How can a market participant benefit from participation in the survey?**

Owing to the survey, the Company will take into account the current needs of individual Projects specified in the survey, which will allow participants of the Hydrogen Map of Poland to **develop and improve their business activity** over the following years. The commencement of work on the development of a hydrogen transmission infrastructure will stimulate the advancement of the Polish economy, and the results of the survey will enable the delineation of preliminary routes of hydrogen pipelines in our country.

#### **9. In what units should hydrogen volume be provided?**

**In the questionnaire in column 'I'. - Explanation** of the information to be entered, the units are specified.

**Please note that 1 kg H<sub>2</sub> - 33.3 kWh**

#### **10. What will be the criteria for planning the routes of hydrogen pipelines?**

The preliminary hydrogen pipeline routes will be determined on the basis of the **survey data obtained**. Certainly, the following will be taken into account:

- interest in connecting to the hydrogen transmission network,
- declared year of connection to the hydrogen transmission network,
- production / demand volume,
- geographical determinants
- technical, legal and economic criteria.

#### **11. Will the results of the survey be publicly available?**

Yes, once the data has been analysed and aggregated, the results will be made available ensuring data confidentiality.

**12. Will the market survey be conducted periodically or is it a one-off procedure?**

On the basis of our current knowledge and understanding of the needs of the market, we intend to conduct such survey procedures periodically.

**13. Will this presentation be made publicly available?**

Yes, certainly. The presentation, subject to full GAZ-SYSTEM copyright, will be made available to all webinar participants.

**14. Is the information I provide binding? If I declare in the survey that I do not intend to join the hydrogen transmission network, will it be possible to state otherwise in 10 years? And vice versa?**

The Hydrogen Map of Poland is a **non-binding** market screening procedure. Of course, GAZ-SYSTEM expects to receive reliable and credible data from you. The information you provide will have a direct impact on the planned hydrogen transmission pipeline routes.

**15. Will the planned hydrogen transmission network be able to transmit other energy sources/carriers e.g. ammonia?**

At this stage, the study concerns only the concept of **pipelines** dedicated to the transmission of **pure gaseous hydrogen**.

**16. Will the Hydrogen Map of Poland take into account the existing natural gas pipelines and their conversion for the purpose of hydrogen transmission?**

The survey concerns only the concept of pipelines dedicated to the **transport of pure gaseous hydrogen**. The results of the survey will show whether **repurposing / reconstruction** of selected sections of GAZ-SYSTEM's gas pipelines will be justified.

**17. Will the Hydrogen Map of Poland take into account international hydrogen pipelines?**

On the basis of the survey data, GAZ-SYSTEM is planning to prepare an optimal plan of hydrogen pipeline routes in Poland, also taking into account interconnections.

**18. What will be the cost of connecting to the network?**

The cost of connecting to the hydrogen network will be estimated once the potential routes and parameters of the hydrogen transmission infrastructure have been determined.

**19. What will the transmission tariff look like?**

The transmission tariff will be estimated once the potential routes and parameters of the infrastructure and the volume of hydrogen to be transmitted have been determined.

**20. How long will it take to build the hydrogen pipeline?**

According to current GAZ-SYSTEM standards, the average duration of the investment process (design and construction) of 100 km long pipeline is approx. 5 - 7 years.

**21. When will the first hydrogen pipeline be constructed in Poland?**

The construction of the first hydrogen pipeline in Poland depends on the dynamics of the hydrogen-based economy. GAZ-SYSTEM has launched the HMP to allow the preliminary model of the hydrogen transmission network to be planned.

**22. Will GAZ-SYSTEM officially be the operator of the hydrogen transmission network?**

The company has the necessary competence, experience, know-how and human resources to act as the National Hydrogen Transmission Network Operator.

**23. Will the map include producers of bio-hydrogen?**

Yes, GAZ-SYSTEM includes in the survey the producers of bio-hydrogen.

**24. What will be the expected purity of hydrogen in the network?**

The survey covers only the concept of creating a pure hydrogen (not blend) transmission network. The Hydrogen Map of Poland does not include the process of preparation and technical verification of the viability of the existing natural gas infrastructure, nor is it related to the process of blending hydrogen with natural gas.

**25. What are the missing regulatory elements for hydrogen transmission in Poland?**

The legislation and regulations related to hydrogen will be similar to those in force for natural gas. The adoption of the hydrogen and natural gas package is expected to significantly regulate the formation and operation of the hydrogen market in Poland.

**26. Is there a possibility to use the existing gas network for hydrogen transport?**

The Hydrogen Map of Poland does not include the process of preparation and technical verification of the viability of the existing natural gas infrastructure, nor is it related to the process of blending hydrogen with natural gas.

**27. Does the Hydrogen Map of Poland take into account consultations on the route of the Nordic-Baltic Hydrogen Corridor?**

The Hydrogen Map of Poland and the Nordic-Baltic Hydrogen Corridor are two complementary projects. The results of the survey will have an impact on potential hydrogen storage locations, including the route of the Nordic-Baltic Hydrogen Corridor.

**28. Will the rules for connecting producers and consumers to the new hydrogen network be similar to those for the natural gas network?**

GAZ-SYSTEM assumes that the legislation and regulations related to hydrogen will be similar to those in force for natural gas.

**29. As part of the work on the Hydrogen Map of Poland, is the construction of a hydrogen storage facility considered and if so - in what location?**

GAZ-SYSTEM is analysing potential locations for hydrogen storage facilities by means of a survey questionnaire.

**30. Will it be possible to be a producer of green hydrogen using an electrolyser and feed it into the transmission infrastructure?**

Yes, certainly. GAZ-SYSTEM assumes the possibility of supplying hydrogen produced in the process of electrolysis into the transmission infrastructure.

**31. Data in years - should we provide in calendar years or gas years?**

Data should be referred to calendar years.

**32. What are the prospects for hydrogen supply in south-eastern Poland?**

Currently, the Hydrogen Map of Poland covers the entire Poland without any geographical restrictions.

**33. Local aggregation of demand for and supply of green H<sub>2</sub> in hydrogen valleys vs. hydrogen transmission networks - should the distribution and transmission network be only between valleys or should they also exist internally within the valleys?**

The Hydrogen Map of Poland survey covers hydrogen production, demand, distribution and storage processes nationwide. Only after the survey is completed will it be possible to assess the size and viability of the construction of a hydrogen transmission network.

**34. Will the compressor stations be supplied with gas (hydrogen) from the hydrogen pipeline?**

The Hydrogen Map of Poland survey covers market aspects only, and not the related technical issues.

**35. How will GAZ-SYSTEM deal with hydrogen corrosion of the new transmission systems or when repurposing unused natural gas pipelines to hydrogen?**

For the construction of hydrogen pipelines, GAZ-SYSTEM will rely on the applicable standards and technical assumptions for that type of projects.

**36. Do you envisage combining hydrogen transmission infrastructure with offshore systems?**

Building synergies between the energy sector and hydrogen industry and maximising the opportunities offered by Power-to-X solutions are the directions we intend to pursue in accordance with our company strategy. The Hydrogen Map of Poland and the information received in the market screening process will provide valuable input and allow us to identify the needs related to

hydrogen supply and demand in specific geographic and market areas. GAZ-SYSTEM looks forward to close cooperation with you in your offshore projects.

**37. How is GAZ-SYSTEM going to tackle the problem of hydrogen corrosion in new facilities or when repurposing pipelines for hydrogen transmission?**

When constructing hydrogen pipelines, GAZ-SYSTEM will rely on technical assumptions and standards applicable to such projects and facilities.

**38. Will it be possible to correct the data submitted in the survey questionnaire or have additional consultations before 20 June?**

Yes, additional consultations on the questionnaires are possible. If you have any doubts concerning the completion of survey questionnaire, please contact us by email at: [wodor@gaz-system.pl](mailto:wodor@gaz-system.pl). Should any doubts occur when entering the information in the questionnaire, please submit the pre-filled questionnaire together with your questions regarding any doubtful issues to the e-mail address provided above.

**39. At what project progress stage the participation in the survey is reasonable? The questions in the questionnaire are very detailed.**

Feel free to report your projects at any stage of development. You can specify the advancement of the project according to the stages suggested in the questionnaire: *Select the project advancement from the drop-down list:*

- *preliminary analyses,*
- *FID made (Final Investment Decision to implement the project),*
- *construction works commenced*
- *operational project*
- *completed project*

Select the most adequate option corresponding to your project's stage of development from the drop-down list.

**40. Is the NDA required prior to the submission of questionnaire? Is the NDA necessary at this stage?**

Under the non-binding market screening procedure involving the submission of survey questionnaires, we have also proposed the possibility of signing a Non-Disclosure Agreement (NDA) with GAZ-SYSTEM. Nevertheless, GAZ-SYSTEM treats all information received from Participants in the course of the Procedure as confidential. GAZ-SYSTEM undertakes to use the information obtained in the course of the Procedure exclusively for the purposes of the Procedure. Concluding the NDA Agreement is not mandatory, however, in some cases customers expect such commitment from GAZ-SYSTEM.



**41. Will it be possible to feed hydrogen into the network in one country and off-take it in another country?**

Yes, GAZ-SYSTEM assumes the possibility of developing interconnections to enable the import or export of hydrogen.

At present, European regulations for the hydrogen transmission market are not yet known, but we assume that such a transmission service will be possible at some point.

**42. Will the gas transmitted via hydrogen network be a blend of hydrogen of different types of emissivity (RFNBO, blue, grey)? I understand that in such a case it will be necessary to 'prove' its production technology (RFNBO and low carbon H<sub>2</sub>) along with guarantee of origin, analogous to the purchase of 'green' electricity?**

From the perspective of GAZ-SYSTEM, the method of hydrogen production is not a key factor determining the possibility of connection to the transmission network. Anyone planning to produce hydrogen and feed it into the transmission network is invited to participate in the survey.

The development of any certification process, or the necessity to demonstrate the guarantee of origin remains outside the scope of the *Hydrogen Map of Poland* survey and will also depend on regulatory requirements in this regard.

**43. How are you going to develop the map of demand (i.e. future hydrogen network) in the context of net-zero industry located in Poland (see metallurgy using hydrogen in the metallurgical process, 'electrofuels' production including e-methanol, etc.)? The context for this question is the plan for future development of the Polish hydrogen economy which is not expected to be based on the current demand for 'grey' hydrogen.**

The hydrogen network planning will depend on the answers provided by the Participants in this non-binding market screening procedure *Hydrogen Map of Poland*. Once we receive information on the locations of hydrogen production and consumption plants and facilities, we will proceed with the planning of detailed routes of hydrogen transmission network.