

[GAS Network Codes Functionality Platform](#)

REPORTED ISSUE ID: 06/2018.
**Communication protocol and
encryption**

Reported by: EASEE-gas
Status: SOLVED

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ISSUE DETAILS

ABSTRACT

There is an ambiguity in determining which standards apply in setting up electronic data communication with market participants. AS2 and AS4 are clearly the two protocols most used in electronic data exchange in the European gas market today. We interpreted the NC on interoperability and specifically the chapter on data exchange that AS4 should be seen as the sole common protocol for the future. We see now that the German market is still developing evolutions on the AS2 protocol. We also see that certain stakeholders consider themselves not obliged to follow the NC. Would it be possible to have a more aligned view on electronic data communication for all market participants? This would lower operational cost related to setting up the ICT systems supporting the electronic market transactions and enable quicker time to market for new demands.

Category: European

REPORTED ISSUE

There is an ambiguity in determining which standards apply in setting up electronic data communication with market participants. AS2 and AS4 are clearly the two protocols most used in electronic data exchange in the European gas market today. We interpreted the Network Code on Interoperability and specifically the chapter on data exchange that AS4 should be seen as the sole common protocol for the future. We see now that the German market is still developing evolutions on the AS2 protocol. We also see that certain stakeholders consider themselves not obliged to follow the Network Code. Would it be possible to have a more aligned view on electronic data communication for all market participants? This would lower operational cost related to setting up the ICT systems supporting the electronic market transactions and enable quicker time to market for new demands.

CONCERNED ENTITIES

Network Code / Guidelines concerned:

Network Code on Interoperability and Data Exchange Rules, Commission Regulation (EU) 2015/703

Member State(s) concerned:

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland

- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Northern Ireland
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom

IP(s) concerned:

- VIP L GASPOOL-NCG

NOTIFIED PARTIES

Informed NRA(s):

None selected

Informed TSO(s):

None selected

SUGGESTED ACTIONS

Who should act:

- ACER
- ENTSOG

Suggested solution or action:

- Other (clear view on which communication standards are applicable in which circumstances.)

PUBLIC CONSULTATIONS

FINISHED

Public Consultations on Communication protocol and encryption

SOLUTION

The consultation process demonstrated that stakeholders are supportive of the extension of the data exchange provisions in the INT NC to virtual trading points. Therefore, ACER and ENTSOG propose an amendment of the INT NC to achieve this as detailed in the attached slide pack. It is proposed to amend Article 1(2), 20 (1), 20 (2) and 23 (1) to extend the scope to virtual trading points and, subject to NRA decision, to points other than interconnection points (e.g. storage and LNG).

As for encryption algorithms, ENTSOG has established a dialogue with the German NRA (BNetzA) and the German institute for IT security (BSI) to find a possible long-term solution for document-based data exchange.

Solution publication date: 2019-01-23

DOCUMENTS

[SOLUTION - Issue Solution Note](#)

[SOLUTION - Issue Supporting Document](#)

[PUBLIC CONSULTATION - Results of public consultations](#)

Gas Network Codes Functionality Process Issue Solution

Issue details	
Number:	470-17-11-30-0853; 486-18-01-03-1149; 496-18-01-19-0932; 477-18-03-13-0956
Name:	Data exchange at VTPs and storage facilities (original title Communication protocol and encryption)
Reporting party:	Equinor (supported by Gastera, ENGIE, EASEE-gas)
Network Code / Guidelines concerned:	Regulation EC 2015/703 network code on interoperability and data exchange rules
Article of the Network Code / Guidelines	Chapter V
Category:	European Issue
Abstract:	
<i>Companies connected to the gas business (market area operators and storage operators) claim that they do not need to follow article 23 of the network code of interoperability</i>	

Issue solution(s)	
Publication date:	23 January 2019
ACER and ENTSOG organised a stakeholder meeting on 16 May on potential solutions, followed by a public consultation from 17 May to 13 June and an additional stakeholder meeting 2 October. Around 30 different parties, including the EC, have taken part in the process. The consultation process demonstrated that stakeholders are supportive of the extension of the data exchange provisions in the INT NC to virtual trading points. Therefore, ACER and ENTSOG propose an amendment of the INT NC to achieve this as detailed in the attached slide pack. It is proposed to amend Article 1(2), 20 (1), 20 (2) and 23 (1) to extend the scope to virtual trading points and, subject to NRA decision, to points other than interconnection points (e.g. storage and LNG). As for encryption algorithms, ENTSOG has established a dialogue with the German NRA (BNetzA) and the German institute for IT security (BSI) to find a possible long-term solution for document-based data exchange. The issue will be closed on the FUNC platform.	

FUNC issue on data exchange

Potential Solutions for VTPs and UGS
INT WG/INT TF meeting 5 December

Antonio Gómez Bruque
Interoperability Subject Manager



Introduction



Data exchange at VTPs and UGS

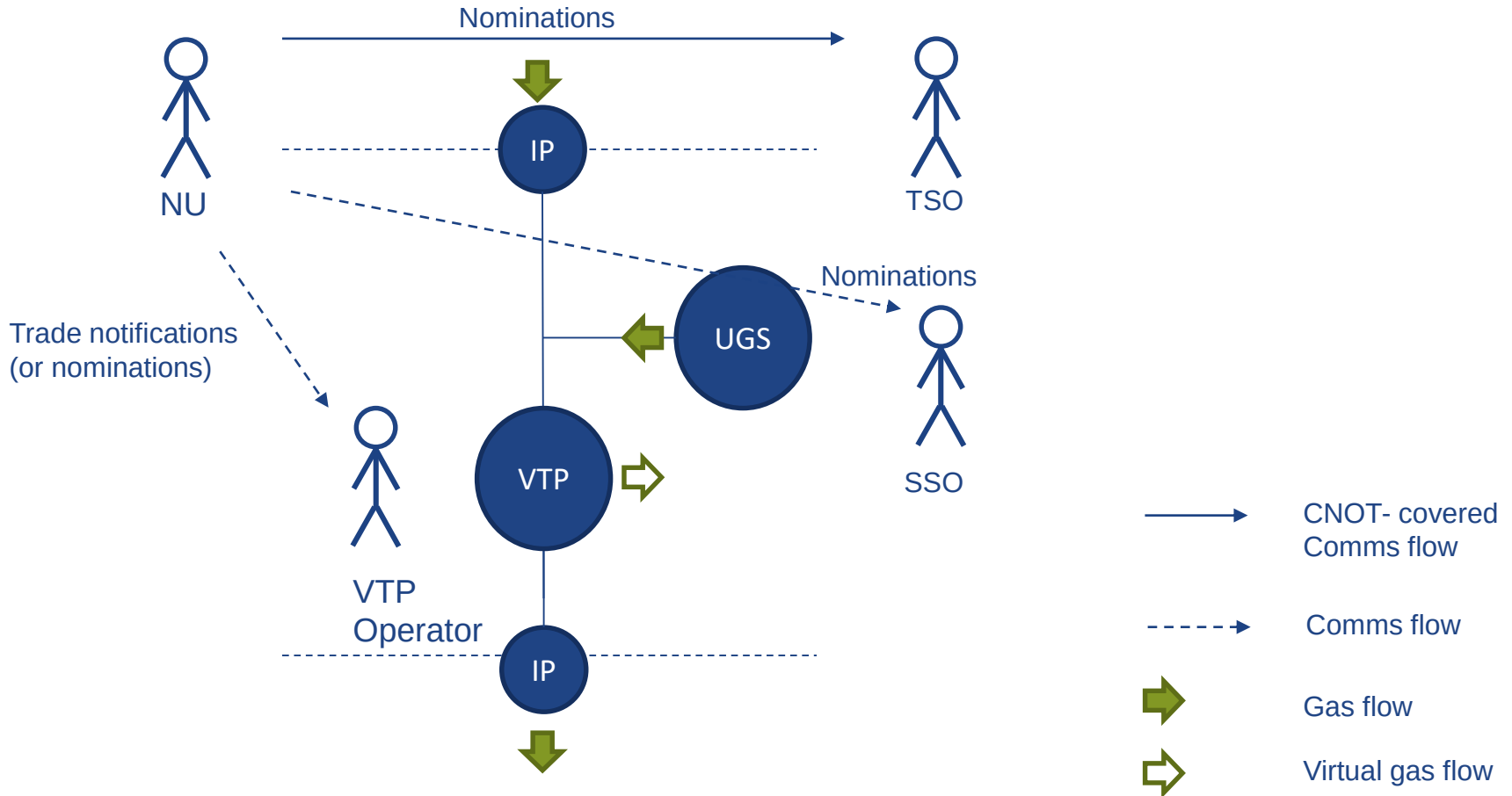
Issue description (Equinor)

- > **Issue subject:** Communication protocol and encryption (original title)
- > **Reported issue:**
 - Storage operators and market area operators (Gaspool and Netconnect Germany) tell they do not need to follow article 23 (Implementation of Common Data Exchange Solutions. In this case, AS4).
 - This leads to an extra cost where network users need to keep AS2 and also ask their vendors to support new encryption algorithm to AS2.
 - In addition they also claim they are not obliged to support edig@s xml (file format) for nominations on the VTPs.
 - If the network code isn't covering these companies the Network Code on Interoperability and Data Exchange Rules, Commission Regulation (EU) 2015/703 has a reduced effect on harmonization.
- > The issue has received the support of ENGIE, GasTerra and EASEE-Gas



Data exchange at VTPs and UGS

Issue context: Nominations and Matching process



Current ENTSOG CNOT only covers nominations at IPs



Data exchange at VTPs and UGS

Overview of steps taken so far

- > Issue categorized as valid and of European scope
- > Potential solutions jointly developed by ENTSOG and ACER
 - VTP issue: European solution (NC amendment)
 - Storage issue: National solution vs European fully fledged binding solution
- > Stakeholder meeting on 16 May
- > Public consultation open from 17 May to 13 June
- > Consultation report published in August on the FUNC platform
 - 30 answers received
 - General support for NC amendment and CNOT extension
- > In view of PC results, ENTSOG and ACER updated draft solutions by 25 September
- > Stakeholder meeting held on 2 October
- > ENTSOG and ACER agreed on issue solutions at FUNC CG level in December 2018

Next steps

- > Publication of the solution and closure of the issue expected in January



Draft solutions presented for public consultation



Data exchange at VTPs and UGS

Potential solutions for VTPs

- > Proposed solution: “European solution”
 - Make the INT NC apply to Virtual Trading Points
 - Insert in Article 1 (2): “Chapter V shall apply to **IPs** and **virtual trading points**”
 - Change Article 20 (1) “counterparties means network users active at **IPS or Virtual trading points**”
 - Extend obligations to parties carrying out data Exchange of behalf of TSOs
 - Add **Article 24a**: Article 20 (2) – 23 shall apply both to the transmission system operator and entities who carry out tasks of the transmission system operator.



Data exchange at VTPs and UGS

Potential solutions for VTPs

- > Proposed solution: “European solution” (cont.)
 - NC amendment to apply from XX.YY.2020:
 - New **Art 26a**: The implementation of the amendments in Article 1(2), 20 (1) and 24a shall apply from XX.YY.2020.
 - *Note*: While network users would anyhow receive a nomination confirmation after the matching process on day D, the allocation of trade notifications to balancing accounts on day D+1 is not mentioned in the issue raised.
 - Rescoping of the ENTSOG CNOT for Nominations & Matching to include VTPs:
 - Modification of the Nominations & Matching BRS
 - Addition of the relevant rows to the ENTSOG CDES table



Data exchange at VTPs and UGS

Potential solutions for Storage Facilities

- > Option 1: “National voluntary solution”:
 - Rescoping of the ENTSOG CNOT to include nominations to storage facilities, LNG terminals and other points subject to nomination (BAL NC article 18) and recommend a CDES for such data exchange requirements

- > Option 2: “Fully fledged binding European solution”:
 - Rescoping of the ENTSOG CNOT as stated above
 - Depending on the outcome of the relevant impact assessment, amending the gas regulation (in the course of 2020 gas legislative package discussion) to extend INT NC obligations for TSOs in Chapter V to other system operators involved in points subject to nominations according to BAL NC Art 18 (e.g. SSOs, LSOs, etc).



Public consultation overview, findings and conclusions



Data exchange at VTPs and UGS

Public consultation overview

- > 30 participants: 15 NUs, 7 TSOs, 5 SSOs, 2 MAMs, 1 NRA, 2 associations, 1 clearing responsible party, 1 LSO.
- > VTP issue:
 - 24 vs 1 participants support an amendment of the NC to make VTP operators use common data exchange solution
 - 1 NU argued that there is a stronger case for harmonizing trade “nominations” than for trade notifications.
 - 2 NUs considers allocation processes connected to balancing should also be harmonized.
- > Storage issue:
 - 18 vs 7 respondents believe lack of harmonization is a barrier
 - 19 participants would benefit from harmonization at other points requiring nominations (BAL NC Article 18)
 - 5 supported “National voluntary solution” vs 19 for “Fully fledged European solution”



Data exchange at VTPs and UGS

Discussion point: Trade notifications vs trade nominations

- > RWEST replied to the PC saying that there is a stronger case for harmonisation of trade nominations than for trade notifications.
 - A trade notification is one where the shipper notifies the TSO of a VTP trade that is just one end of day number. These apply in the GB and Italian markets.
 - A trade nomination looks like a physical flow nomination, i.e. it will have a lead time to take effect, will be effective from a certain hour of the gas day and have an hourly profile for the remainder of the gas day. These apply in the German, Austrian and Dutch gas markets for example.
 - RWEST argues that the process for registering both trades are different.
- > *Pending question/conclusion: trade notifications in the BAL NC cover the two operational models above. A wide majority of stakeholders sees value in harmonising data exchange solutions for trade notifications in general.*
- > *Background: BAL NC Articles 3, 5, 7 (3) and 13*



Data exchange at VTPs and UGS

Discussion point: solution for the storage issue

- > 18 vs 7 respondents believe lack of harmonization is a barrier
- > 19 participants would benefit from harmonization at other points requiring nominations (BAL NC Article 18)
- > 5 supported “National voluntary solution” vs 19 for “Fully fledged European solution”
- > *Provisional conclusion:*
 - *Respondents are mostly asking for a binding solution. However, according to ACER, under the third package rules it would be very difficult to impose such detailed provisions on LSOs and SSOs.*
 - *A possible approach could be to leave to the NRA the decision on the application of CNOTs to other points subject to nominations as per BAL NC Article 18.*



Data exchange at VTPs and UGS

Discussion point: allocation process

- > As a side topic, some stakeholders (Equinor and RWEST) have argued in favour of harmonising the allocation process.
- > The BAL NC requires TSOs to provide network users with information regarding allocations.
- > This has been interpreted by some respondents in some member states as a data exchange requirement in a NC and, therefore, subject to harmonisation via an ENTSOG CNOT.
- > However, the allocation process goes beyond the scope of the INT NC (IPs + VTPs) as it refers to any in-take or off-take *for the purpose of determining the daily imbalance* (city gates, storage points, direct customers ...).
- > *Provisional conclusions:*
 - *Any proposal of NC amendment should be made in consideration of potential future harmonisation work on allocations.*
 - *Giving discretion to NRAs in the applicability of a potential CNOT for allocations (as for the storage issue) seems a prudent approach.*



Proposed solution



Data exchange at VTPs and UGS

Previous considerations on the proposed solution

- > ENTSOG understands that CDES as specified in CNOTs are binding after reading Articles 23 (1) and 24 in combination. The binding character of CNOTs refers to the choice of the common data exchange solution (protocol and format) but does not imply that the whole set of CNOT related documents (BRS, implementation guides and communication profiles) are mandatory.
- > ACER and ENTSOG think that including or referring to the CDES table in the NC may be beneficial.
- > Regardless of the legal debate around the binding character of CNOTs, stakeholders overwhelmingly supported harmonized data exchange solutions.
- > CDES as specified in the CNOTs have been implemented by 80% (inc. 11% N/A) of TSOs. ENTSOG and ACER encourage the implementation of the CDES specified in the CNOTs.
- > NCs bind directly only TSOs but they have effects on other parties. Therefore, extension of obligations to other parties is proposed to be conditional upon NRA decision.
- > ENTSOG has established a dialog with BNetzA and BSI regarding encryption algorithms.



Data exchange at VTPs and UGS

Solution summary

- > *Amendment of the INT NC (European solution for VTP + national regulatory for other points):*
 - *Insert in Article 1 (2): “Chapter V shall apply to **interconnection points, virtual trading points and, subject to national regulatory authorities’ decision, other points than interconnection points**”*
 - *Change Article 20 (1) “counterparties means network users active at (a) IPS; or (b) VTPs, or (c) **other points than interconnection points following NRA decision under Article 1 (2)**”*
 - *Change Article 20 (2): “(...) (i) between transmission system operators and from transmission system operators, **entities that carry out tasks of the transmission system operator, and other system operators to the extent they are affected by NRAs’ decision under Article 1 (2) to their counterparties (..)**”.*
 - *Change article 23 (1): “1. Depending on the data exchange requirements (...), transmission system operators, **entities that carry out tasks of the transmission system operator, and other system operators to the extent they are affected by NRAs’ decision under Article 1 (2)** shall make available and use the common data exchange solutions defined in Article 21*



Data exchange at VTPs and UGS

Solution summary (II)

- > *Amendment of the INT NC (European solution for VTP + national regulatory for other points):*
 - Add at the end of Art 26 the following sentence: ***“The implementation date of the amendments in Article 1(2), 20 (1), 20 (2) and 23 (1) shall be **12 months from the entry into force for VTPs and for other points than interconnection points as may be decided by the national regulatory authority**”.***
- > *ENTSOG will update the CNOT for Nominations and Matching to include:*
 - *An explanation of the different types of trade notifications.*
 - *Nominations to storage facilities, LNG terminals and other points subject to nomination (as per BAL NC article 18)*
 - *Extension of the CDES table for these data exchange requirements*



Data exchange at VTPs and UGS

Considerations on the proposed solution

- > The proposed solution would:
 - Clarify that harmonization is applicable also to VTPs from a common future date
 - Clarify that parties carrying out data exchange on behalf of TSOs (such as Market Area Managers) are also bound by the INT NC in this respect.
 - Leave discretion to NRAs in:
 - Applying the ENTSOG CNOTs beyond the scope of the INT NC (IPs + VTPs) to other points (storage points, LNG terminals) and deciding on the implementation date
 - Setting obligations for SSOs, LSOs and other operators not acting on behalf of a TSO.
- > Any future harmonization work on other topics that arose during this consultation (e.g. allocations) would be reasonably framed by the amended INT NC by distinguishing between the minimal interoperability scope (IPs + VTPs) and possible extensions as decided by NRAs
- > *We expect that NC amendment process will not be fast considering that a new parliament will be elected in 2019 and the on-going higher level regulatory discussion (negotiations on Electricity regulation and the gas package)*



Data exchange at VTPs and UGS

Considerations on the proposed solution

- > The needs of small network users need to be taken into account. In that respect, Article 23 (2) allows existing solution to continue to apply and gives discretion to NRAs as for the implementation date of CDES.
- > In the long-term, standardization saves costs and all type of network users should benefit from it.
- > ACER and ENTSOG are of the view that the proposed NC amendment would apply regardless of whether trade notifications are done on a daily or hourly basis. The CNOTs will describe both variants.
- > As a part of the CNOT extension process (BRS and MIG) message semantics may need to be analysed to ensure that they take account of the different national specificities.
- > If eventually, the allocation process is harmonized message semantics might deserve special attention due to the different balancing systems in place.



Thank You for Your Attention

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FUNC Issue on data exchange at VTPs and Storage Facilities

Public consultation report – Summary of responses

1. Subject and scope

The purpose of this document is to present a summary of the main results from the public consultation on the FUNC issue on data exchange at VTPs and Storage Facilities carried out by ENTSOG and ACER in June 2018.

You can find more information on the consultation and reported issue [here](#). Next steps in the process are explained at the end of this document.

2. Methodology

For each of the questions, a numerical summary of the answers is presented and the main arguments illustrated by quoting some of the stakeholders. This report is complemented by the publication of the non-confidential answers.

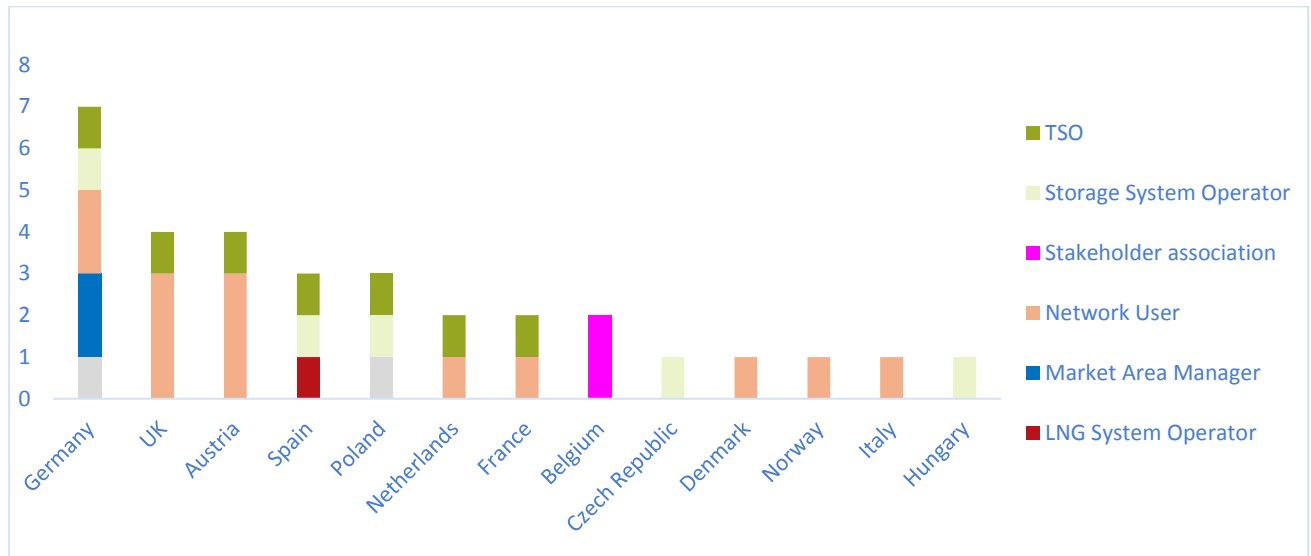
3. Main results

3.1. Participants per Country

30¹ Participants from 13 countries participated in the public consultation on the FUNC issue. Germany (7), Austria (4) and the UK (4) were the countries with the highest numbers of participants. The chart below illustrates the full country list.

7 of them indicated that their answers can be published but the organisation name should remain anonymous.

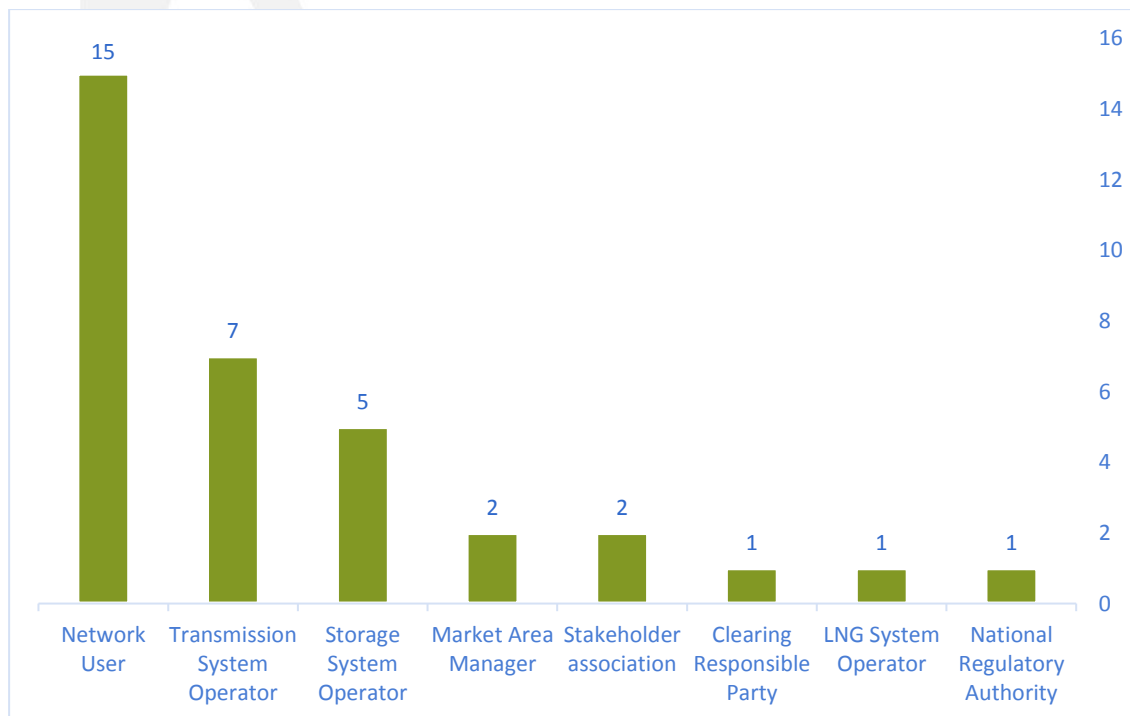
¹ One participant from Spain answered in his role as combined System Operator including the roles of a TSO, SSO and LNG Operator, please consider that in the following charts they are considered in their 3 indicated roles.



The chart above represents also the distribution of each role per country.

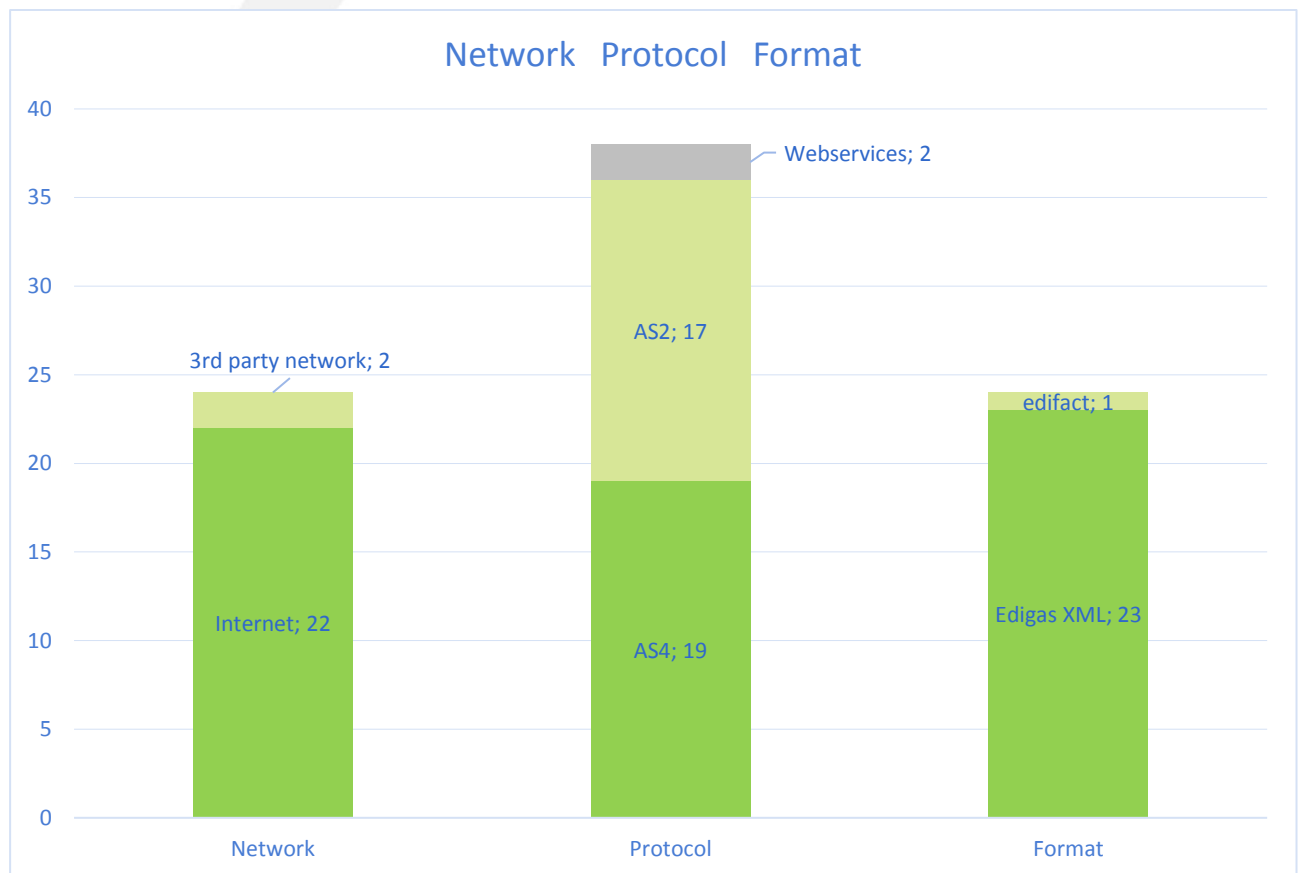
Please note that due to confidentiality requests the category of some stakeholders has been hidden.

3.2. Participants per sector



The most represented sectors were Network Users followed by Transmission and Storage System Operators. The role indicated as “other” is Clearing Responsible Party. Please note Enagas is represented in the roles as TSO, SSO and LNG System Operator.

3.3. Data Exchange involving VTPs



- Network: 22 Participants indicated “Internet” as the network they are using for data exchange while 1 Network User (Centrica UK) and 1 TSO (National Grid) are using a 3rd party network.
- Protocol²: AS4 was indicated by 20 participants, followed by AS2 with 17 participants.
- AS4 is used by:
 - Network Users: 3 from UK, 2 from AT and UK, one Network User from DK, FR, NL, IT, NO
 - TSOs: 1 TSO from FR, PL, NL and AT
 - SSOs: 1 SSO from PL
 - NRA: 1 NRA

² Please note that a company can have more than one protocol in place

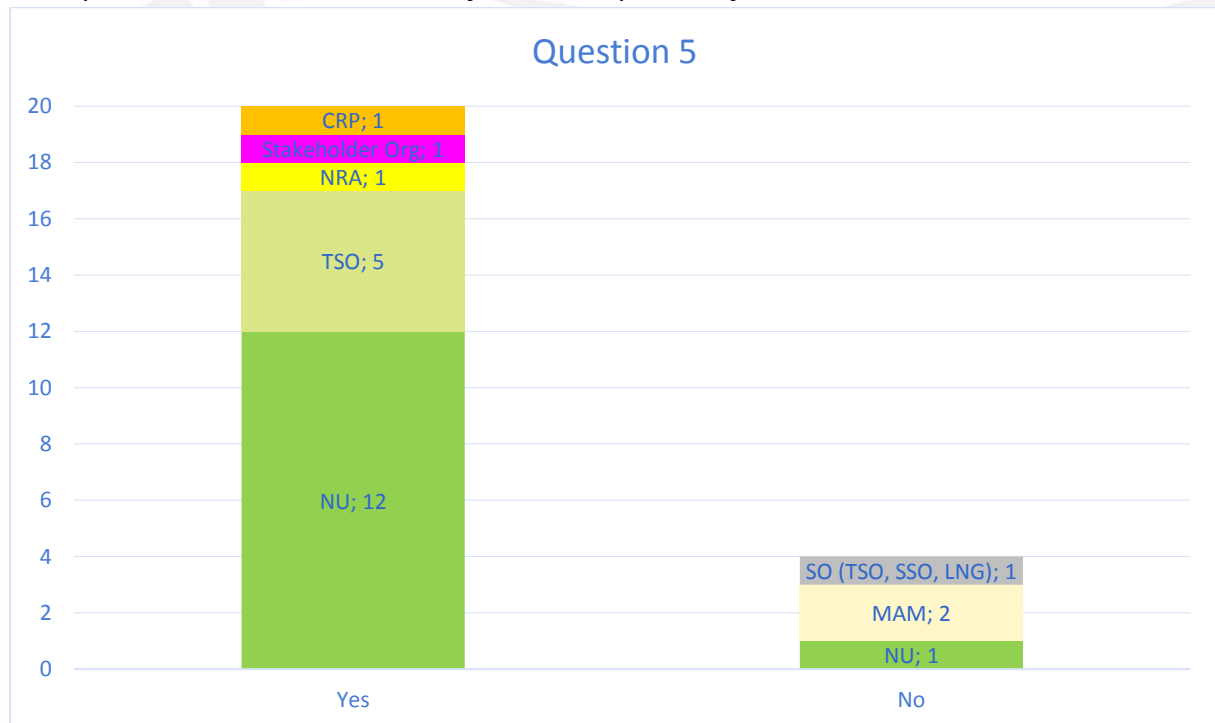
- Clearing Responsible Party: 1
- AS2 is used by:
 - Network Users: 12 – 3 from AT and UK, 2 from DE, 1 from DK, FR, IT and NL
 - TSOs: 1 from DE and 1 from FR
 - Market Area Managers: 2 from DE
 - Clearing Responsible Party: 1

Webservices are used by Terega (TSO from FR) and Enagas (TSO, SSO and LNG Operator from Spain). 2 Network Users, one Market Area Manager and one clearing responsible party are still using email in addition to the above-mentioned protocols.

- Format: The Format used by 23 participants is Edig@s XML while 2 Network Users, one Market Area Manager and a Clearing Responsible Party are using Edifact in parallel to Edig@s XML.

3.4. Data Exchange involving VTPs – Question 5

Do you believe that the lack of harmonisation in the communication of trade notifications to VTP operators is a technical barrier for the completion of the internal market?



- **Yes:** 20 participants believe that this is a technical barrier for the competition of the internal market.

Following comments have been provided:

- RWE Supply and Trading (RWEST, Network User from the UK) indicated a difference between trade nominations and trade notifications and stated that data exchange for

trade nominations should be consistent with the DE solutions used for Interconnection Points

“At some hubs (e.g. Germany, Austria and Netherlands) transactions at the VTP take the form of trade nominations which are treated similarly to nominations at IPs, whilst at other hubs (e.g. the UK and Italy) they take the form of trade notifications. Where transactions at the VTP take the form of trade nominations, we see considerable merit in harmonising the data exchange solution and making this consistent with that which is mandated at IPs through the EU Interoperability Network Code (INT NC). To the extent this differs from the data exchange solution used for capacity at IPs, this increases the risk that errors and inconsistencies could incorrectly represent a shippers imbalance position (and hence the imbalance of the system). [...]there is a stronger case for the harmonization of data exchange for ‘trade nominations’ than for ‘trade notifications’ [...]”

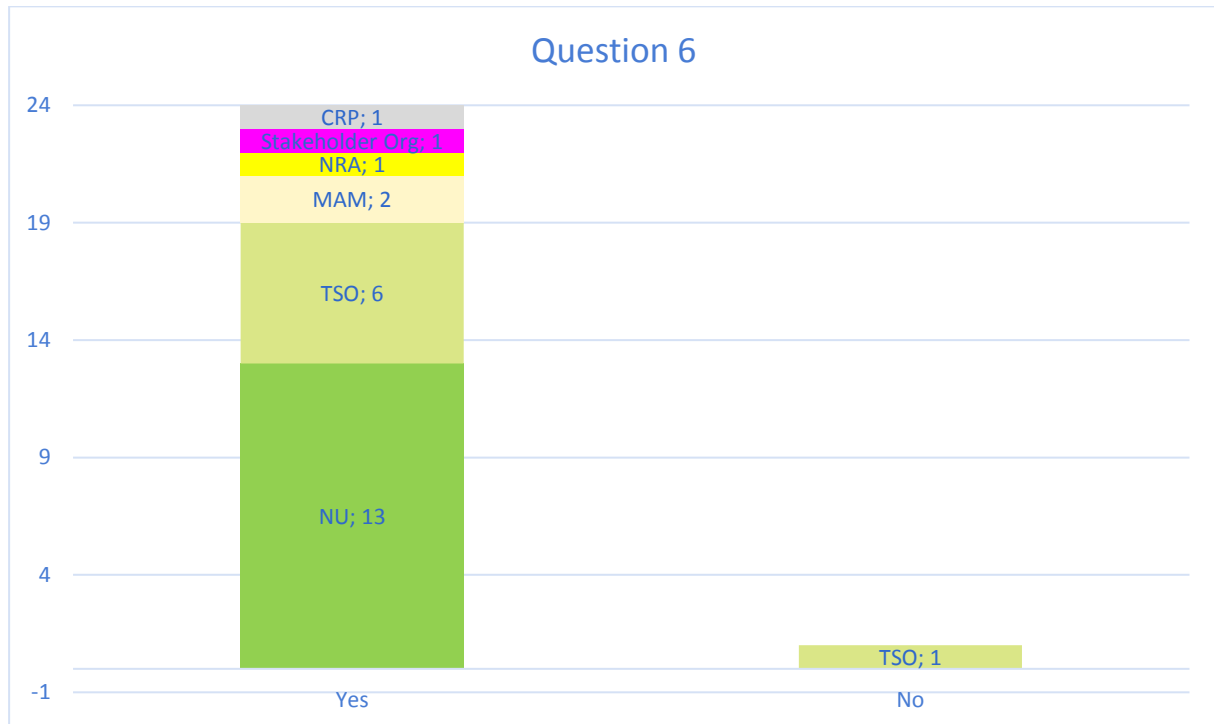
Equinor (Network User from Norway), Gastera (Network User from the Netherlands), EASEE-gas (European Stakeholder Organisation). Linz AG (Network User from Austria) and a Clearing responsible party stated that one standard for the format and protocol used for the communication to the VTP operators will reduce the implementation and operational costs on the IT side.

- **No:** 4 participants do not believe that this is a technical barrier for the competition of the internal market.
 - Enagas stated that “[...]. The harmonization of data exchange including VTP therefore would favour the market as long as it remains flexible enough to cover the needs of the various profiles of network users (Data exchange solutions as defined by Article 21 of INT NC), in particular: - Making available Interactive solutions for small market players, that would allow their operation in different gas market without costly IT developments.”

Remark from National Grid: *“Our answer is neither ‘yes’ nor ‘no’. We have no knowledge about the extent to which this reported issue on the Functionality Platform prevails more widely in the EU. From a GB perspective, we have experienced very little interest from GB shippers to date in adopting the CDES as a means of nominating at the IPs. “*

3.5. Data Exchange involving VTPs – Question 6

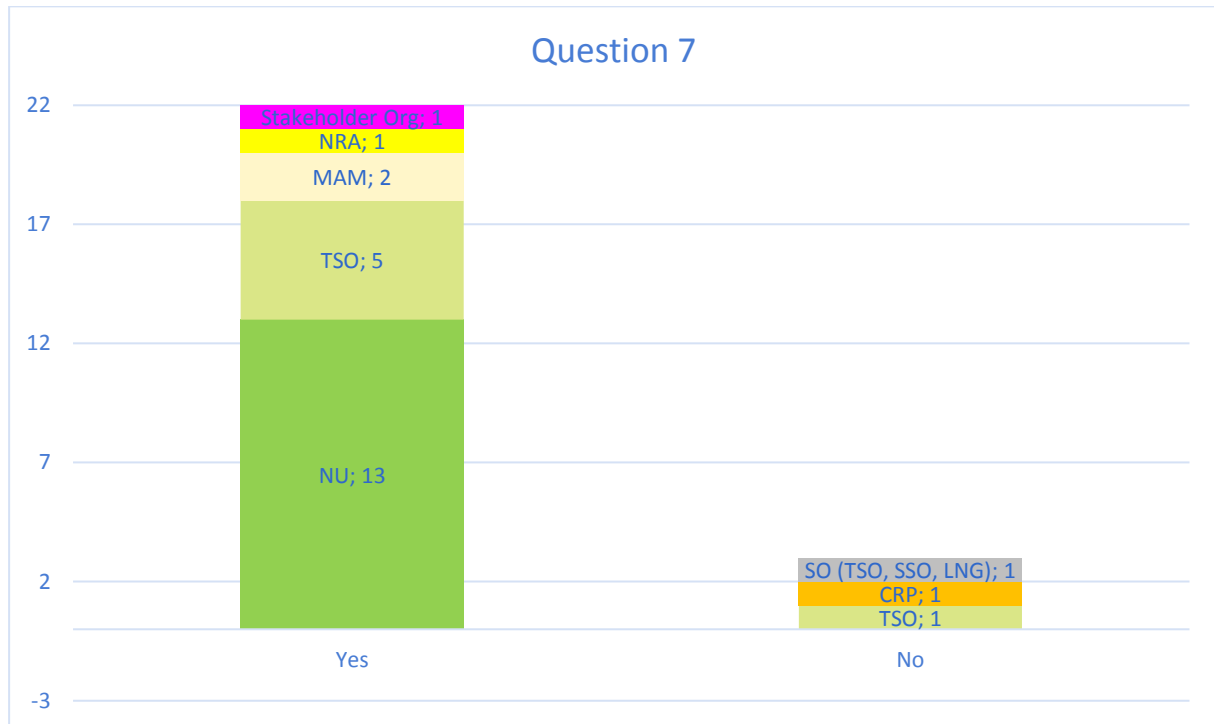
Potential solutions for data exchange involving VTPs: Proposed solution: “European solution”
- Make the INT NC apply to Virtual Trading Points



- **Yes:** 24 participants are supporting the proposed solution by making the INC NC applicable to VTPs.
 - Linz AG and one Network User from Germany ask for an earlier implementation date than 2020
 - *“Equinor The best would be that all connection points, VTP’s and storages are harmonized also considering allocation and processes connected to balancing. This would reduce the cost and decrease the risk.”*
 - A Clearing Responsible Party indicated the format and not the protocol as a possible issue: *“We have to note that Germany despite they want to stick to AS2 is not the greatest problem since AS4 and AS2 are pretty similar in case of security (especially if AS2 is upgraded on the encryption). We see much bigger problems in countries that refuse standard protocol or usage of EDIgas at VTPs, e.g. Italy/Spain/UK. If that moves Operators from these countries towards AS2/4 then it is strongly requested*
 - Enagas stated that *“The network users should not experience more difficulties to operate in a certain market just because this market the VTP is operated by a VTP operator that is not a TSO due to the multiplicity of TSOs in one country. For this reason, with respect to the communications with network users, the same rules should apply to VTP operators and TSOs.”*
- **No:** National Grid is not able to support the proposed solution at this stage stating that *“[...] The contributions of a broader range of EU market participants to this consultation will, we hope, go some way to demonstrating whether doing so is necessary for effective EU gas market integration.”*

3.6. Data Exchange involving VTPs – Question 7

Would the proposed solution ensure an appropriate degree of harmonisation?

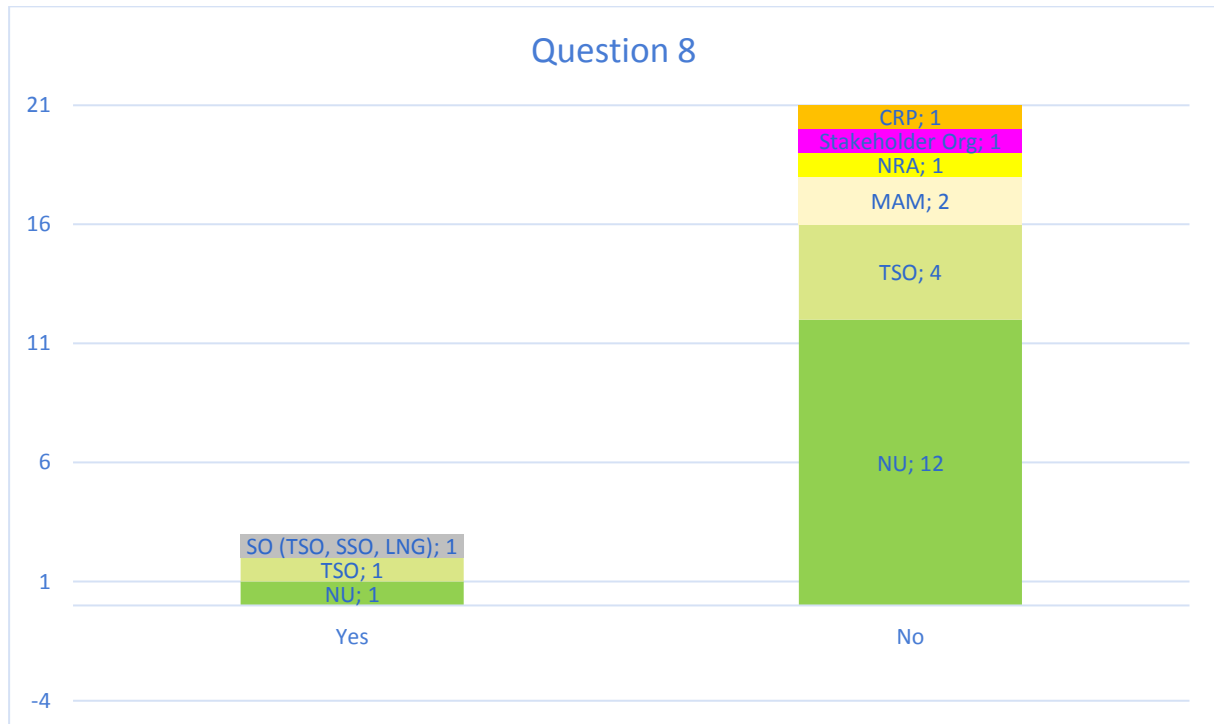


- **Yes:** 22 participants agree that this proposal will ensure an appropriate degree of harmonisation stating that
 - *“This solution would be a big step in respect of harmonisation”* (Network User from Germany)
- **No:** 3 participants disagree to this proposal at this stage since they don’t have sufficient evidence from EU market participants (National Grid), a Clearing Responsible Party interpreted the INT NC in the way that format Edig@s XML is not mandatory which will ensure a partial harmonisation only³. Enagas agrees with the NC extension to VTPs and VTP operators, but cannot agree with an interpretation of it that would imply the mandatory implementation of one CDES to be selected by ENTSG.

3.7. Data Exchange involving VTPs – Question 8

Is there any other solution that should be considered for the reported issue?

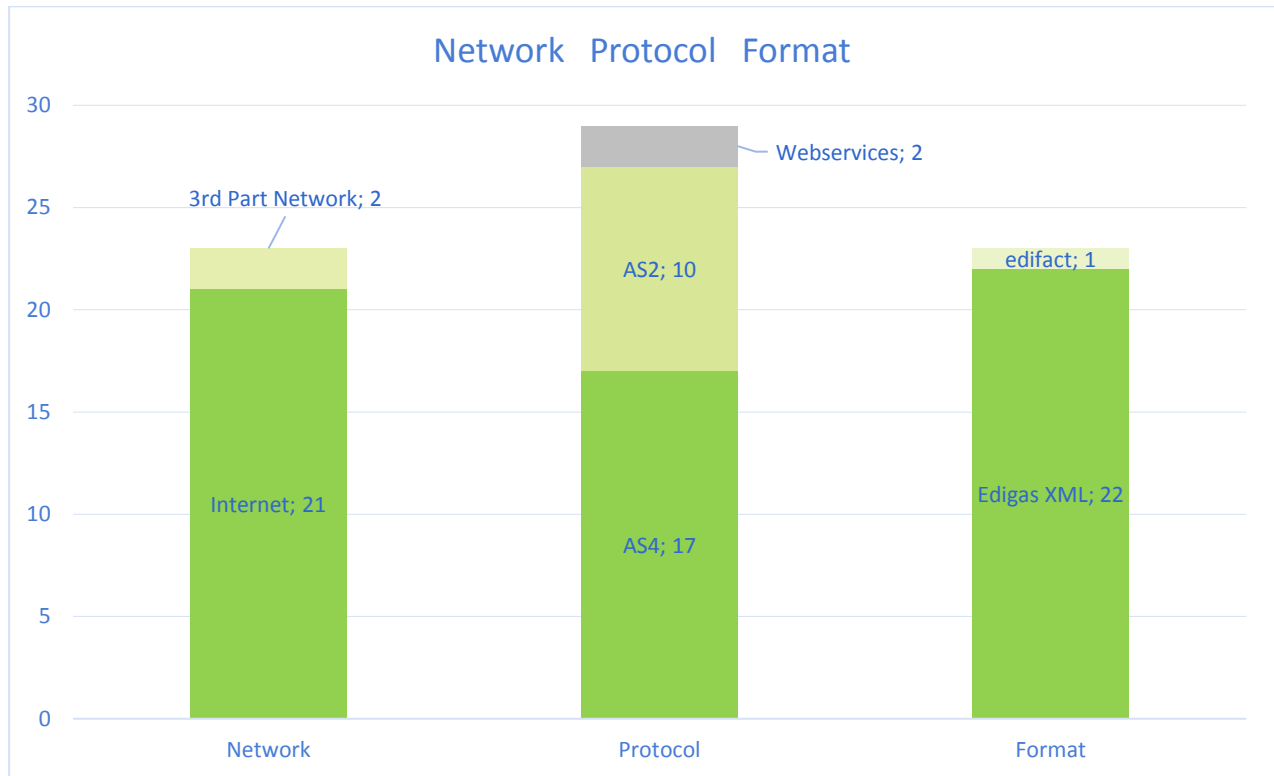
³ The INT NC prescribes the use of Edig@s XML for document-based and integrated data exchange solutions.



- **Yes:** 3 Participants consider other solution for the reported issue
 - Enagas: “VTP operators to be considered under the scope of INT NC, but clarifying that this does not imply the implementation of any specific data exchange solutions beyond the limitations set by article 21.”
 - National Grid: “[...] it may be more appropriate to adopt the proposed solution but make its application conditional upon a NRA decision[...]. The solution could be implemented as drafted, but with a proviso that if a TSO consults its shippers and obtains written consent from its NRA that the proposed solution is not appropriate for that particular member state then the TSO is relieved of its obligation to extend the solution that it has in place at its IPs to its VTP(s). Alternatively, the ‘national voluntary solution’ contemplated for storage facilities in Q13 could be applied for VTPs. This would be easier to implement because it would not require a change to the Interoperability Code, only to the CNOT documentation for Nominations Matching.”
 - Uniper (Network User of Germany) requests for exchange of net trading position (aggregated trades per counterparty), no individual transactions.
- **No:** 21 see no other solution to be considered for this issue, one Market Area Manager stated that the proposed solution allows no voluntary implementation. Equinor stated that there has to be a legal demand for it.

3.8. Data exchange at Storage Facilities – Question 9

What Network / Protocol / Format do you use today for transportation nomination to the TSO connection points to Storage Facilities?

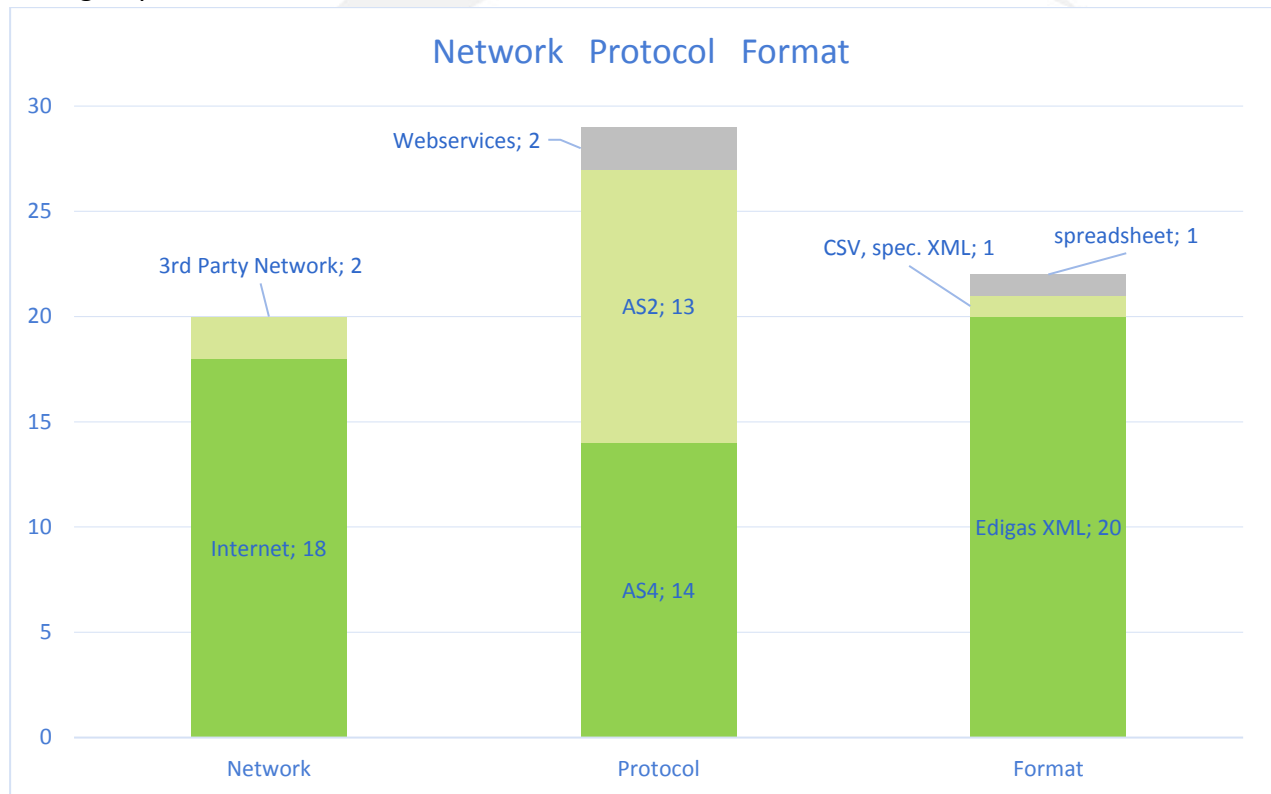


- Network: 21 Participants indicated “Internet” as the network they are using for data exchange while 1 Network User (Centrica UK) and 1 TSO National Grid are using a 3rd party network.
- Protocol⁴: AS4 was indicated by 17 participants, followed by AS2 (9 participants) and Webservices (Terega and one Storage System Operator).
- Format: The Format used by 23 participants is Edig@s XML while ENI (Network User from Italy) is using Edifact in parallel to Edig@s XML.

⁴ Please note that a company can have more than one protocol in place

3.9. Data exchange at Storage Operators – Question 10

What Network / Protocol / Format do you use today for transportation for nomination to the Storage Operators?

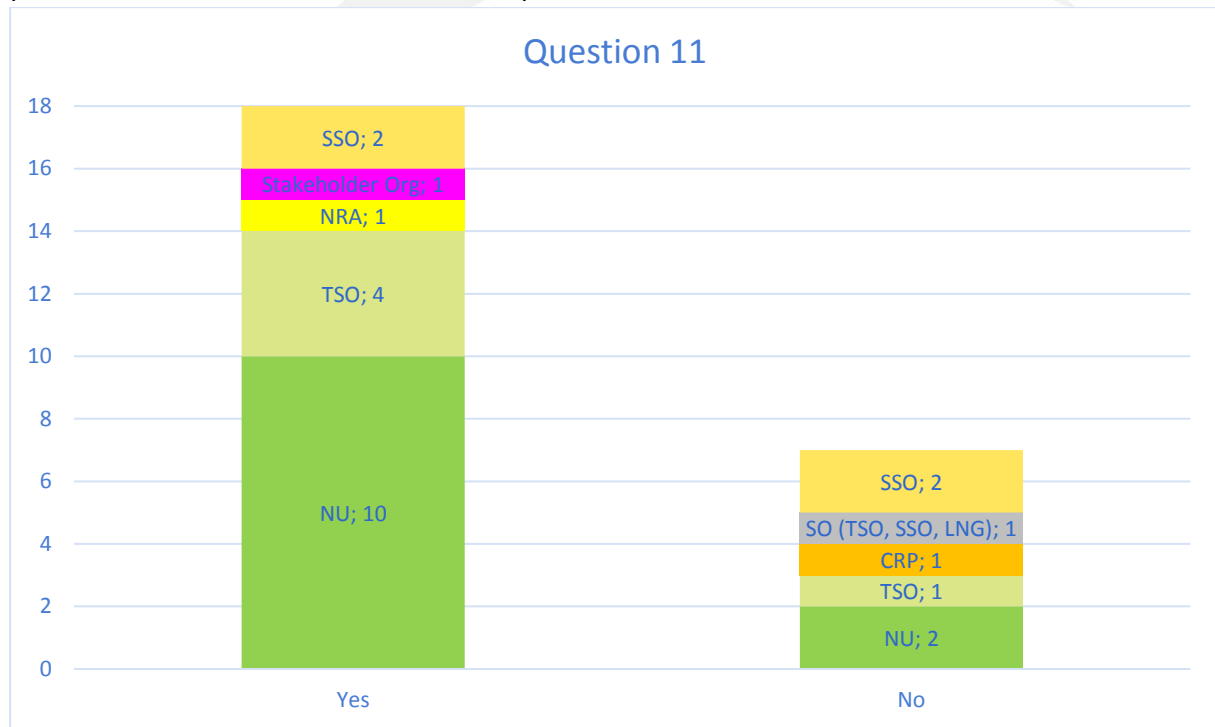


- Network: 18 Participants indicated “Internet” as the network they are using for data exchange while 1 Network User (Centrica UK) and 1 TSO (National Grid) are using a 3rd party network.
- Protocol⁴: AS4 was indicated by 14 participants, followed by AS2 (13 participants) and Webservices (Enagas and Terega). Equinor and one Network User from Germany are still using email in addition to the above-mentioned protocols.
- Format: The Format used by 20 participants is Edig@s XML while Equinor is using email and Terega CSV and specific XML in parallel to Edig@s XML.

Innogy (Storage System Operator from CZ) stated that they are using a web application through a VTP operator.

3.10. Data exchange involving Storage Operators – Question 11

Do you believe that the lack of harmonisation in the communication of nominations to storage points is a technical barrier for the completion of the internal market?



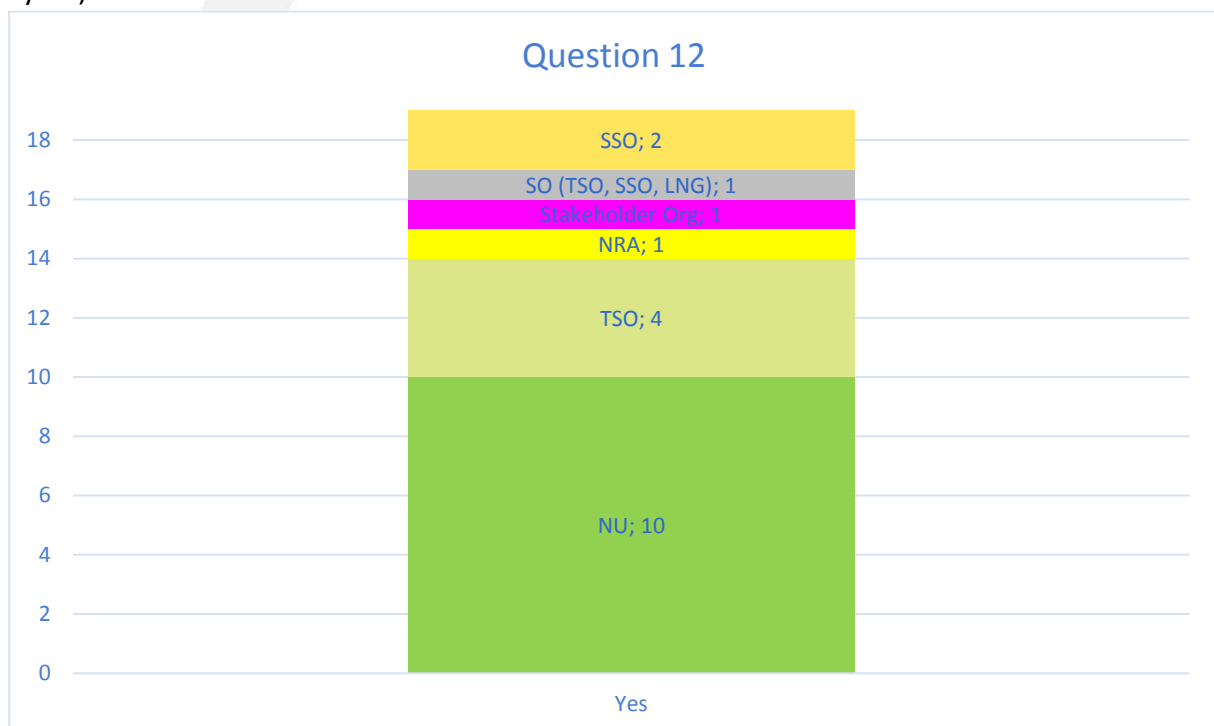
- **Yes:** 18 Participants answered this question with “yes”
 - EASEE-Gas, Equinor mentioned the cost efficiency, less error occurrence when using harmonised communication.
 - Open Grid Europe (TSO from Germany) stated that the current situation using AS2 is acceptable but future developments should be implemented in the sense of complete harmonisation of the market.
 - RWEST reasoned: *“In our opinion applying them just to network users’ nominations at IPs would create confusion as network users not active at IPs would be allowed to continue submitting nominations via existing national data exchange solutions, whereas network users active at IPs would not be. This would perpetuate systems proliferation for both TSOs and network users. [...] As a large energy trader operating in multiple markets, we have been forced to deal with this and find solutions which allow us to continue trading effectively. However, these solutions are by no means as efficient as they could be.”*
- **No:** 7 Participants do not believe that the lack of harmonisation in the communication of nominations to storage points is a technical barrier for the completion of the internal market
 - Enagas stated: *“, [...]different data exchange solutions (among the three options covered by INT NC) may be the optimum for different types of network users. A proper level of harmonization is given by the NC Article 21 – one or more of the three proposed solutions are to be implemented. Besides, keeping the data exchange requirements within the range*

provided by Article 21 of INT NC would ensure the security of data exchange, that being critical to any kind of gas-business communications – not limited to TSO-network user or TSO-TSO communications”

○

3.11. Data exchange involving Storage Operators– Question 12

Would you also benefit from harmonization at other points requiring nominations as per BAL NC Article 18? (This question was relevant if the participants answered the previous one with "yes")



- **Yes:** 19 Participants (10 NUs, 4 TSO, 1 SO, 2 SSOs, 1 NRA, 1 Stakeholder Organisation) answered this question with “yes”

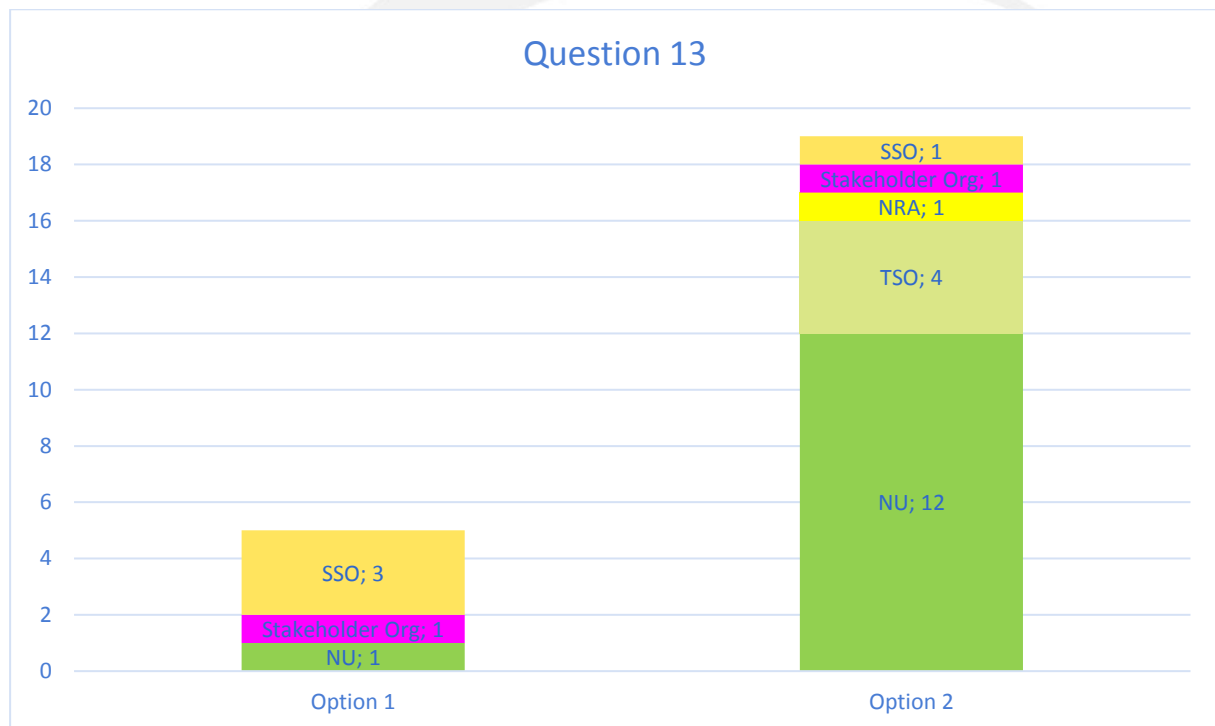
○ *“Equinor would support a total harmonisation of all point where gas is flowing (IP's, national connection points, End-user connection points, storage points, VTP's and LNG points).”*

3.12. Potential solutions for Storage Facilities – Question 13

Option 1 “National voluntary solution”: Rescoping of the ENTSG CNOT to include nominations to storage facilities, LNG terminals and other points subject to nominations (BAL NC article 18) and recommend a CDES for such data exchange requirements

Option 2 “Fully-fledged binding European solution”: Rescoping of the ENTSG CNOT as stated above. Depending on the outcome of the relevant impact assessment, amending the

gas regulation (in the course of 2020 gas legislative package discussion) to extend INT NC obligations for TSOs in Chapter V to other system operators involved in points subject to nominations according to BAL NC Art 18 (e.g. SSOs, LSOs, etc).



- **Option 1:** 5 Participants supported Option 1
- **Option 2:** 19 Participants supported Option 2

3.13. Data exchange at Storage Facilities– Question 14

Could you explain your choice for the potential solution

Option 1 “National voluntary solution”

Option 2 “Fully-fledged binding European solution”

■ **Option 1 comments**

○ GIE stated: “Within GIE, most of SSOs are not in favour to implement a fully-fledged binding EU solution. Rationale:

a. Some SSOs are already implementing/offering this either on a voluntary basis or via the transmission connection agreement

b. It's better to wait and give some time for SSOs before taking any decision on binding EU solution.

Based on a very recent GIE IT audit, 7 SSOs indicated that they should have AS4 accounts next years (GIE predict in 2019).”

○ Innogy stated: “The AS4 protocol can be offered to shippers for storage nominations in a matter of months, if there is demand for it, i.e. the process of creating a binding European solution is unnecessarily lengthy and burdensome given the action required. Also, a national solution is a better fit for the purpose because it can reflect local specifics, such

a standard use of a local VTP platform for storage and transmission nominations instead of a direct use of AS4 protocol.”

■ **Option 2 comments**

- VNG (Network User from Germany) stated: *“A fully binding European solution helps to harmonize the market.”*
- ENI stated: *“A binding European solution, which defines a structured nomination process applicable for all Storage Operators, could be considered a good approach for harmonizing the messages exchanged between shippers and SSOs; however we believe this has to be limited only to Storage System Operators.”*

3.14. Data exchange at Storage Facilities– Question 15

What is your view on the effectiveness of each of the proposed solutions? Please provide your view on the effectiveness of each solution

■ **Option 1 comments**

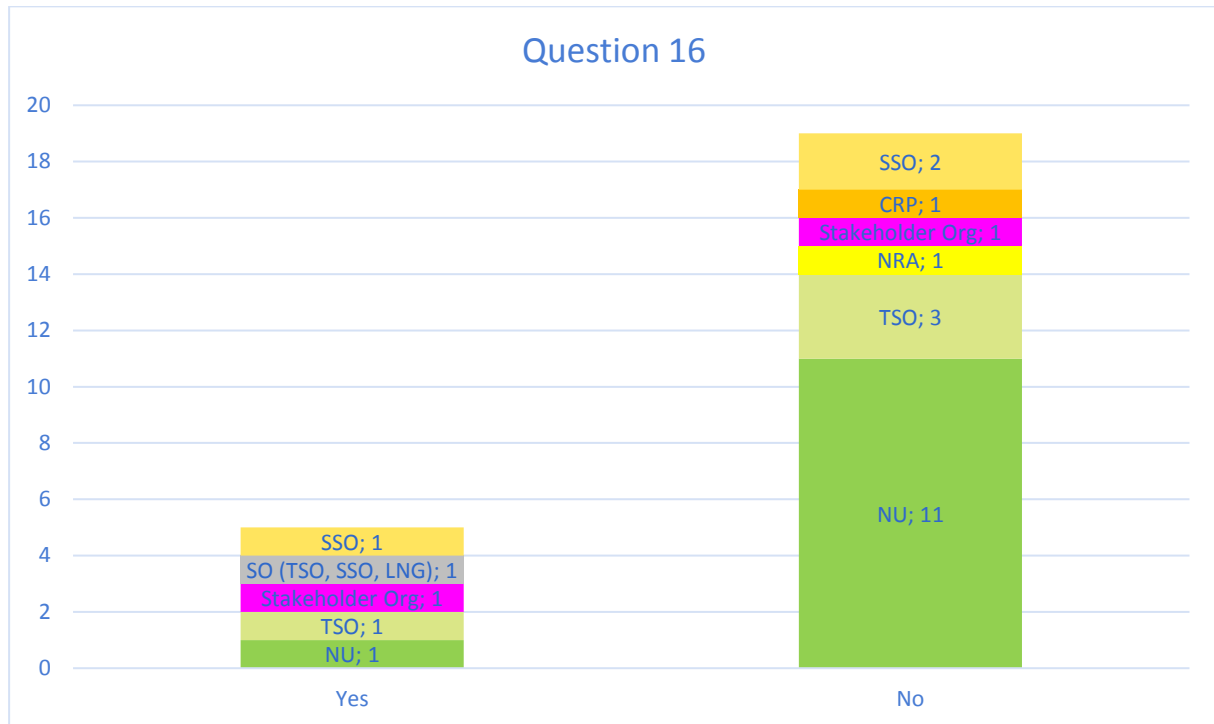
- EASEE-Gas: *“If neighbouring NRAs make sure that interpretation and implementation in the neighbouring member states is the same, this will be the most efficient and timely solution”*
- GTS (TSO from the Netherlands): *“We are against this solution as it gives every country the possibility to implement their own solution. No harmonization.”*
- Innogy: *“More effective, may reflect national specifics. However, the issue will be most effectively solved by the market.”*
- RWEST, Linz AG and OGE stated that this solution is ineffective, does not guarantee a full harmonisation and would be a long-term development.
- One Network User from Austria stated that this would not be a change to the present situation since many SSOs offer already AS4 and Edig@s communication.

■ **Option 2 comments**

- RWEST stated that this solution would be the *“Most effective and efficient for market functioning provided that clear guidance is given, compliance is taken seriously and an appropriate implementation period is agreed”* and other respondents agreed with this sentiment.
- Shell UK (Network User from the UK): *“Brings all countries and counterparties into line making it easier for shippers to set up all communications”*
- Enagas: *“[...] only the Option 2 would ensure a real harmonization of the data exchange facilitating data exchange for network users, otherwise they will have to keep other protocols and formats for non-TSO communications, giving no added value to the NC’s attempt for harmonization.”*

3.15. Data exchange at Storage Facilities – Question 16

Is there any other solution that should be considered for the reported issue?



- **Yes:** 5 Participants indicated another solution for the reported issue.
 - GTS: *“Make the INT NC apply to Storage operators (just as for VTPs)”*
 - One German Network User stated *“Keep the current effective system of being able to use AS/2”*
 - Enagas: *“The data exchange towards any kind of infrastructure operator could be centralized through the TSO, that would be a service provider taking the messages from the network users in the harmonized formats and protocols, and communicating them to other kind of infrastructure operators.”*
 - GIE: *“Since a number of SSOs are in the process of implementing AS4, it would be advisable to wait before taking any decision on the binding EU solution. The issue can be revisited in 2019.”*
 - Innogy: *“No binding legislation or recommendation is needed. Some SSOs are already implementing/offering AS4 either on a voluntary basis or via the transmission connection agreement. The issue will be most probably solved by the market sooner than through any legislative or recommendation process.”*
- **No:** 19 Participants indicated no other solution for the reported issue.

4. Next Steps

Taking into account the input to this consultation, ACER and ENTSG will keep working on this issue and will communicate a draft joint solution by 25 September 2018. This communication will also set out how stakeholders will continue to be engaged in respect of this topic.,