



Draft BUSINESS PLAN CEN SFGas WG Pre-normative study of H-gas quality parameters

**Subject to discussion at the CEN SFGas WG meeting
on 2016-05-24**
(written comments prior to the meeting are welcome)

1. Status

General

This SFGas WG is a joint working group between Sector Forum Gas Infrastructure and Sector Forum Gas Utilization.

Sector Forum Gas is a platform aiming at facilitating the exchange of information between the different stakeholders, coordinating and identifying the standardization needs in the field of gas. This platform allows pre-normative studies of which the result can be forwarded to a TC for standardization work.

It is open to representatives of CEN members (including national authorities), representatives of relevant Technical Bodies, to EC and EFTA representatives and to relevant sector representatives

Context

This SFGas WG is related to M/400 "Gas quality" approved in 2008 which requested the development of a standard that enhances the free flow of gas within the internal EU market in order to promote competition and security of supply including

- the widest range for gas quality parameters for H-gas within reasonable costs,
- minimizing the negative effects on gas infrastructures integrity, efficiency and the environment and
- allowing the maximum number of appliances to be used without compromising safety.

In this context CEN/TC 234 'Gas infrastructure' developed EN 16726:2015 'Gas infrastructure – Quality of gas – Group H' which has been published by end 2015 (DAV 2015-12-16). For some requested parameters a result could not or not fully be reached due to lack of consensus (mainly caused by lack of findings/research on the topic). Therefore, M/400 is considered as not fully accomplished.

Indirectly the present proposal is also relevant for the completion of M/475 (prEN 16723 for natural gas and biomethane for use in transport (CNG and bio-CNG) and biomethane for





injection in natural gas network which directly refers to the parameters to be standardized under M/400 (M/475, Art. 3, Para. 2).

The work of the SFGas WG is subject to an 'add on' proposal to M/400 accepted by CEN/BT WG 217 on 2016-05-09 and formally to be addressed to EU COM DG GROW at short terms (Title of the proposal: Gas quality: further development of EN 16726:2015 including elaboration of Wobbe Index aspects and complementary requirements on sulfur for distributed gases).

Note: Total sulfur for transported gas is already included in EN 16726:2015.

2. Objective and scope

Study of the impact of identified values of H-gas quality parameters not yet or insufficiently established in EN16726:2015 on the whole gas supply chain *on the basis of technical and fact based findings* with the purpose of supplying information and recommendations on the parameters in question to CEN/TC 234 for the future revision of EN 16726:2015.

With :

- H-gas: second family gases of group H as indicated in EN 437:2003 +A1:2009.
- Quality parameters: combustion and other gas composition parameters which are not or insufficiently established in EN 16726:2015 in accordance with the M/400 mandate or for which relevant need is identified.
- Gas supply chain: the chain from all network injection points till and including all kinds of end-use.
- End-use: all types of relevant end-use of the afore-mentioned gas in the residential, commercial and industrial area.

3. Subjects (allocated to specific Task Forces)

The prioritised subjects are:

i. Wobbe Index (WI)

- WI range (limits)
- WI fluctuation rate
- impact of renewables (biomethane, hydrogen, ...)

➤ TF 'Wobbe Index' - *two options are to be discussed:*

Option 1: The work is carried out in 2 specific TFs:

- TF 1: WI range
- TF 2: WI fluctuation rate

Note: TF 1 and TF 2 would have to work in close co-operation and exchange with each other.



Option 2: The work is carried out in ONE unique TF for Wobbe Index range and fluctuation rate which can work with adhoc groups for purpose

ii. Total Sulfur

Sulfur for distributed gases:

In EN 16726:2015 only total sulfur for transmitted natural gas is specified: 20 mg/m³ (as sulfur) for non-odorized gas and 30 mg/m³ for odorized gas. The scope of EN 16726:2015 encompasses the gas chain as a whole, which means that this gas quality parameter was insufficiently established as there is no specification for distributed and used gas, which is of interest for gas use.

iii. National situations

Benchmark on local and national constraints related to the identified subjects that could block European harmonization of gas quality (legal/regulatory framework in the countries, existing appliances park, field practices, historical data regarding gas quality, ...).

iv. Other matters of gas composition

Other matters of gas composition might be subject of SFGas WG and can be allocated to TFs built on voluntary basis.

Proposals/subject to discussion addressed to SFGas WG "...Study H-GQ..." in the context of the business drafting are

- On site adjustment of gas appliances – technical aspects (proposal from France, convenorship offered)
- Hydrocarbon dew point and water dew point (proposal from EUROMOT)
- Survey of hydrogen developments (proposal from France)
- Methane number, incl. fluctuations/time related to motor application (proposal from Germany)
- Calorific value (proposal from Germany)

4. Membership

The SFGas WG is comprised of Members and Observers.

Members should represent one of the following categories:

- Representatives of EC and EFTA
- *Representatives of CEN members (national mirror committees) or Member States'

Task Forces dedicated on gas quality aspects including:

- national authorities: Regulatory authorities, Ministries in charge of safety, Metrology authorities





- national standardisation organisations
- national associations
- national representatives of the below mentioned sectors
- Representatives of relevant CEN Technical Bodies
- Representatives of European associations representing interested stakeholders in one or more of the following sectors :
 - Gas producers (natural gas, biomethane, H2, other renewables,...)
 - Shippers/Traders/suppliers
 - Gas infrastructure operators (grid, storage and LNG)
 - Appliance manufacturers (residential/commercial/industrial)
 - End-users
 - Maintenance/service companies
- Research institutes, test houses
- Representatives from major European research projects (upon invitation only)
- ENTSOG

***Note:** It is in the responsibility of the Member States to organize the national input/participation.

Number of representatives in the SFGas WG:

Representation of European Organisations should be limited to two named persons.

National representation should be reasonably chosen to represent all parts of the gas chain but should be limited to three persons. (a common position is awaited)

The head of delegation should be clearly identified in case that more than one person is part of the delegation.

Observers include a maximum of two designated representatives from each of the following organisations:

- i) CCMC
- j) ACER (tbc)

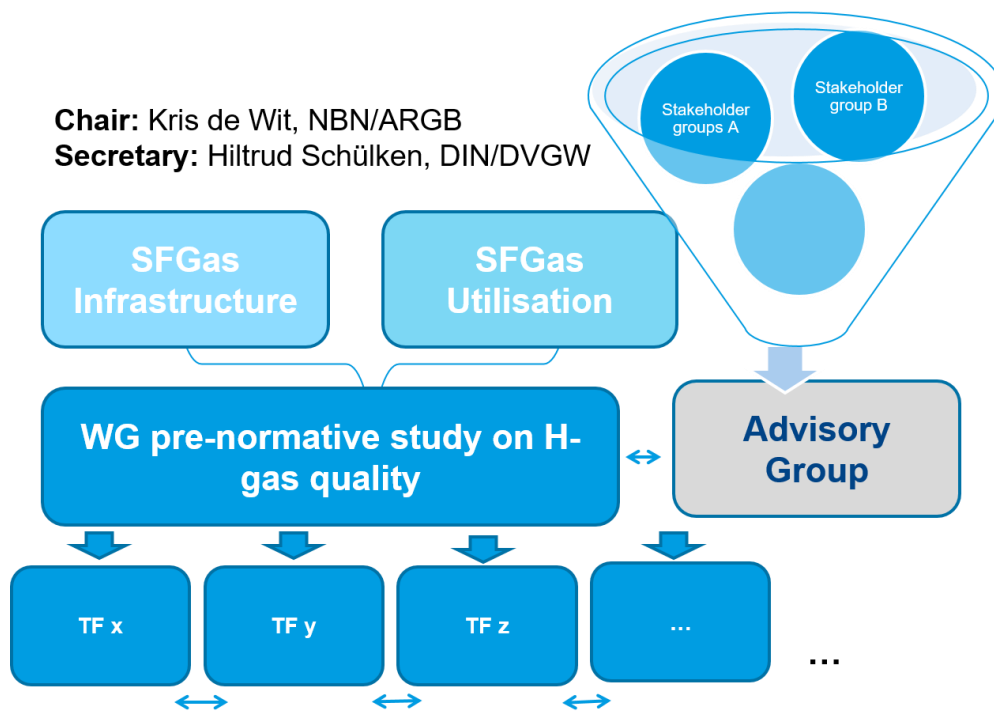
In addition, by agreement of the SFGas WG, representatives from specific organisations may be invited as experts to attend specific meetings.



5. Structure, methodology and practical approach

5.1 General

The structure will be as follows:



The working language is English: It is agreed that any delivered data should be in English or at least accompanied with executive summaries and explanations in English.

To facilitate exchange, discussions and analysis, the **use of common terms, definitions and units** is to be agreed; these will be identified/determined in an adhoc group at the beginning of the process.

5.2. Roles and responsibilities

5.2.1 SFGas WG

The WG defines the work programme, steers the taskforces and decides on the recommendations/conclusions to be sent to the European Commission and CEN/TC 234. (See 'Planned structure' above)

The WG is placed under the Sector Fora Gas Infrastructure and Utilization, The WG will regularly report to the Sector Fora and Sector Fora members will be involved in major WG consultations. Any recommendation/conclusions made by the SFGas WG will be consensus-based.



WG members should be ready to handle with WG and TFs enquiries in co-operation with their national/associations (mirror committees/Member States' Task Forces) and/or identify the relevant contact points for information.

The Secretariat of the SFGas WG is provided by DIN. The Chairperson of the SFGas WG is provided by NBN.

Their task is mainly organization and coordination/management of the project and reporting to all relevant external relations.

5.2.2 SFGas WG Chair Advisory Group (CAG)

The SFGas WG shall be supported by a Chairman Advisory Group (CAG).

The CAG shall:

- a) assist the SFGas WG Chairperson and Secretary in the management of the Working Group's tasks;
- b) prepare strategy and documents for the SFGas WG meetings;
- c) support the drafting of reports for external relations as the EC and for the CEN Technical Boards.

The CAG members are:

- d) identified representatives of the different parts of the gas chain (e.g. representatives of the European organisations)
- e) SFGas WG Chair and Secretary

In addition, by agreement with the SFGas Chair and Secretary, advising experts and/or external consultants (eg. JRC), may be invited for specific purposes.

To ensure efficient exchange and discussion, it is considered necessary to limit membership to about 15 individuals. Its composition is to be approved by the WG.

The CAG is convened by the Chair of the SFGas WG and supported by the SFGas WG Secretary

5.2.3 SFGas WG Task Forces (TF)

Tasks of the Task Forces dealing with technical subjects (Wobbe Index, sulfur):

- i. Technical assessment of relevant data (e.g. national/ regional/ sectorial input)
- ii. Objective analysis of technical findings/situations.
- iii. Identification of technically possible scenarios/solutions with detailed explanative descriptions allowing their evaluation, including impact assessment for the parts of the gas chain (technical measures, costs, etc.)
(without consideration of national constraints and situations).



- iv. Report to the WG.

Tasks of the Task Force National situations:

- i. Collect national/regional/sectorial data.
- ii. Report to the WG.

The Task Forces rely on the fact based input from national stakeholders, preferably agreed with the national mirror committees/Member States Task Forces and other European associations.

To ensure efficient exchange and discussion, it is considered necessary to limit membership to about 15 individuals by making use of all possible network connections. Their composition is to be approved by the WG.

Convenor and Secretary are appointed in agreement between WG, TF and SFGas WG Chair.

Note: It is to be checked if JRC can take over a role.

'Contributing Observers' with access to the documents of TFs are possible.

5.2.4 Adhoc group (AhG)

The SFGas WG and TFs shall have the possibility to set up *ad hoc* subgroups dedicated to specific topics if and when considered necessary.

5.3 Third Party Consultancy

The detailed work will be carried out within the SFGas with support of independent third party consultancy (if possible, with help of JRC).

Note: to be discussed within SFGas WG and with JRC/DG ENERGY

5.4. Proposed methodology

For each of the gas quality parameters:

1. A purely technical impact assessment of scenarios which reflect different approaches (minimum and maximum range/value, fluctuations, regions, costs etc), is carried out over the whole supply chain and the different types of application. The scenarios should be clearly defined and described by the TF and approved by the WG.
2. All constraints/issues on each of the steps of the supply chain are identified.
3. All ways to solve constraints/issues are identified including an estimation of the cost.
4. A report is made containing the result of each of the previous points and, if possible, any general conclusions and recommendations.

Steps do not necessarily have to be carried out one after the other, parallel assessment is applied where possible.





Along with this general methodology:

1. A same set of reference conditions, units, terms and definitions is used in all communications to avoid any misunderstandings (cf. §7.1).
2. Except indisputably linked, the different gas quality parameters are studied independent from each other as to avoid one parameter delaying and/or blocking the progress of the other(s).
3. For enquiries appropriate forms are developed to harmonize data collection.

As far as the Member States' Task Forces (or National mirror committees) are concerned, their involvement and input is required particularly for

1. the existing situations regarding the appliances park, the relevant national/regional legislation and any widespread field practices;
2. the historical data regarding gas quality variations on the global national territory and on single end-use spot.

5.5 Meetings

As far as possible, the SFGas WG, CAG and TFs shall work through electronic means (e.g. electronic platforms, e-mail, phone conference and web conference). However, physical meetings shall be held as required.

5.6. Exchange of documents and information

SFGas WG and TFs shall use an electronic platform (e-committee) provided by CCMC/DIN and managed by the NSB holding the secretariat for the exchange of documents and information.

Members are requested to drop documents to be posted in the LiveLink system instead by mail to the SFGas WG Secretariat.

Note: If possible, TF Convenors will be enabled to manage their LiveLink section themselves.

5.7. Workshops

It is planned to support the process by at least 4 Workshops to share the key findings and related experiences as widely as possible in order to create common understanding with a broader stakeholder group. This is important with respect to the acceptance and the actual implementation of the revised EN 16726.





6. Deliverables & Timescale

6.1 Deliverables

A final report will summarize the results of the pre-normative study and will give well-justified and described recommendations/conclusions for the revision of EN 16726:2015 regarding the identified subjects.

The outcome of work with the TFs will constitute the basis for the final report.

Note: If the development of an identified subject finally blocks the completion of the final report for other identified and finalised subjects, it should be possible to split the final report for purpose, on decision of the CEN SFGas WG.

6.2 Timescale

Kick-off of the SFGas WG is 24th of May 2016.

A final report is to be supplied to EU Commission and CEN/TC 234 by the 24th of May 2019 (to be confirmed)

T + 12 months	Interim report
T + 24 months	Interim report
T + 36 months	Final report

Note: Detailed working plan schedule to be done by TFs by 1st of October, 2016 as different steps are first to be decided/confirmed during the kick-off meeting.

1st CAG meeting by the end of June.

2nd WG meeting expected by October/November 2016.

Installation of TFs confirmed on the kick-off meeting: by the end of June 2016. Start of work after installation.

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