



Paris, 5 March 2013

Workshop: Development of
Biomethane in Europe :
Legislation, Injection and
Trade

GDF SUEZ

ÊTRE UTILE AUX HOMMES

BIOMETHANE STANDARDS: What is the status?

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- **M/475 Mandate given to CEN for standards for biomethane for use in transport and injection in natural gas pipelines**
 - Object : Biomethane for use in transport and injection in natural gas pipelines
 - Directive : [2009/28/CE](#) Promotion of the use of energy from renewable sources
 - Aim : Development of the use of biomethane
 - Needs : Specifications (parameters and values) for the biomethane
 - Origin : European Commission – DG Energy (Dr. Kyriakos Maniatis)

 - Text of the mandate :
http://ec.europa.eu/enterprise/standards_policy/mandates/database/index.cfm?fuseaction=search.detail&id=459

The proposed agreement between

CEN/TC 19 Fuels and

CEN/TC 234 Gas infrastructure (which had a dedicated WG for injection of biogas into natural gas networks since 2007)

would have led to distinct (and therefore diverging) requirements depending on use.

- Many comments during the CEN/BT consultation on the acceptance of the Mandate.
- Second CEN/BT Consultation resulted in the set up of **CEN/PC 408**
- **Chairman : Erik BÜthker (NL)**
- **Secretary : Charles-Pierre Bazin de Caix (AFNOR, FR)**

■ Scope :

- *In the frame of mandate M/475, **standardisation in the field of biomethane specifications, for use as a fuel for vehicle engines and injection in natural gas grid.** CEN/TC 408 does not focus on its production process or source nor the origin of the source. This excludes the specification on other gases than biomethane.*

■ Work programme:

- Mandated :
 - WI 00408001 prEN Biomethane - Specifications for use as a fuel for vehicle engines and injection into the natural gas grid.
 - WI 00408002 prEN Biomethane – Determination of the concentration of biomethane in natural gas pipelines.
- According the needs :
 - WI 00408003 prEN Biomethane – Determination methods

■ 17 Countries :

- Austria (ASI), Belgium (NBN), Bulgaria (BDS), Czech Republic (UNMZ), Denmark (DS), Finland (SFS), France (AFNOR), Germany (DIN), Greece (ELOT), Italy (UNI), Latvia (LVS), Norway (SN), Slovenia (SIST), Slovakia (SUTN), Spain (AENOR), Sweden (SIS), United Kingdom (BSI)

■ 7 liaisons with EU organisation :

- NGVA Europe, EBA, Farecogaz, GIE, Marcogaz, Afecor, ENTSOG

■ 3 Liaisons with technical committees :

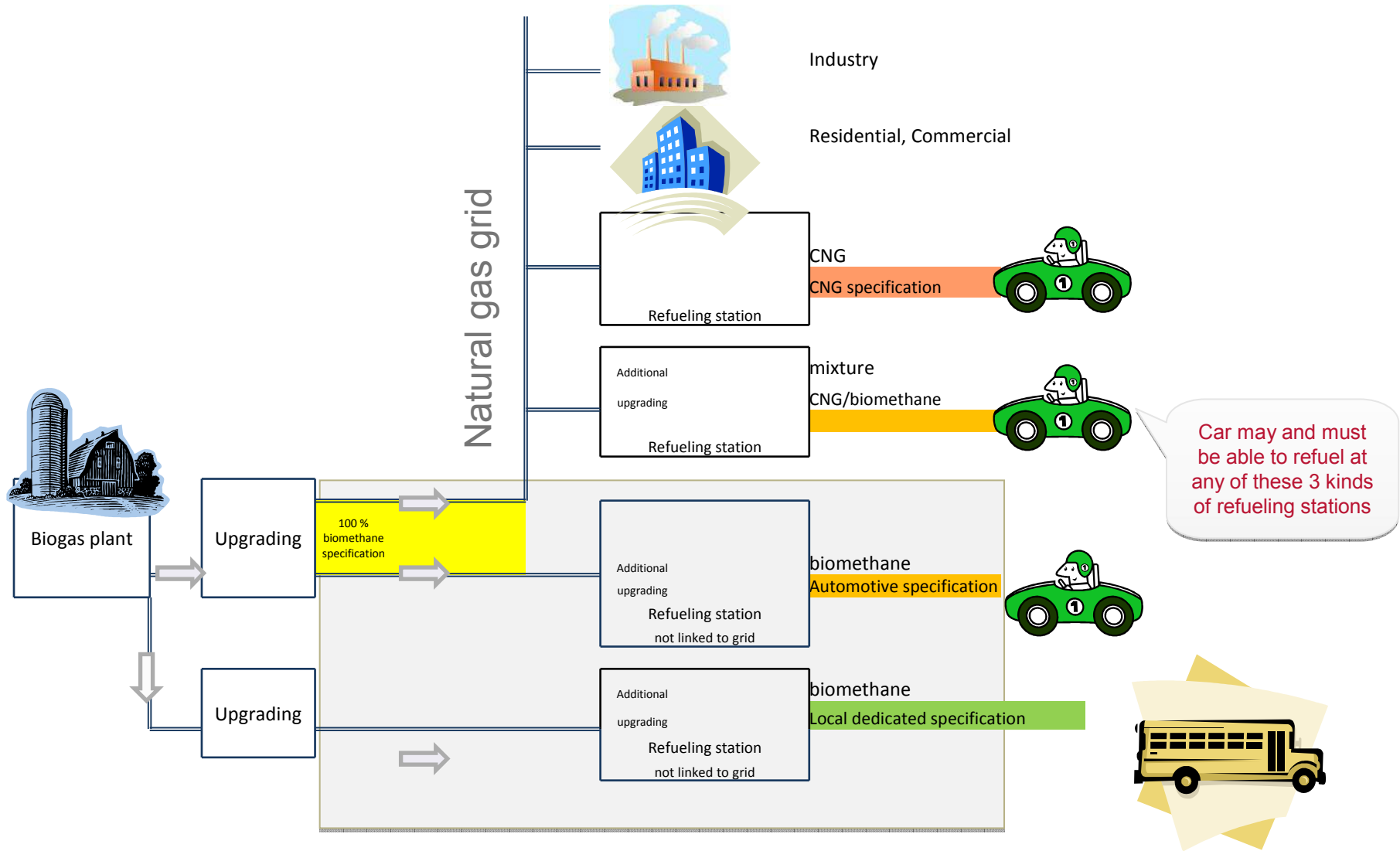
- CEN/TC 19, CEN/TC 234 and WG 11, ISO/PC 252

■ Stakeholders :

- Car manufacturers, Grid operators, Biomethane producers, Fuel producers, Natural gas suppliers, Manufacturers of gas fuelling stations

- Mandates M475 states:
 - « The specification shall exclude the definition of any parameters or substances that are addressed in M400.»
 - ☞ **Several parameters are being defined by M400 (CEN/TC 234/WG 11) and not by M475 (CEN/PC 408).**

Scope of mandate M475, reviewed June 2012



■ Various political objectives and European Directives

- Renewables (2009/28/EC),
- Opening of the gas markets (2009/73/EC)
- Fuels (98/70/EC, 2005/55/EC),
- EC proposal for a Directive on on the deployment of alternative fuels infrastructure (January 2013).

☞ Need for a political arbitrage

■ Avoid technical barriers to trade

- Common language with the same standard in the 32 CEN Member states (UE 27+5)
- Parameters and levels are to be based on experience, technical and scientific evidence : present disposals in national regulations show too wide a spectrum; the rationale for them is often unknown or insufficient.

- To acknowledge the fact that, although initially not planned, the work of CEN/TC 408 implicitly addressed the issue of CNG (Compressed Natural Gas) as a fuel,
 1. CEN/TC 408 took a decision in June 2012 asking for an extension of its initial scope,
 2. CEN/TC then launched a consultation on this proposal among its members.

Result (100 % positive votes): Modification of scopes

- **CEN/TC 408 new scope** encompasses:
 - both biomethane and natural gas as fuels,
 - and biomethane for injection into natural gas grids.
- Biomethane and natural gas as fuels are excluded from the scope of **CEN/TC 19 Fuels**.

- DECISION 39/2012 taken by CEN/TC 408 on 2012-12-07
- Subject: CEN/TC 408 – **High Methane Number Grade fuel**
- **CEN/TC 408 Project Committee - Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid,**
- Considering that the gaseous fuel supplied to the grid connected natural gas filling stations will meet the methane number requirements specified by CEN/TC 234/WG 11, a High Methane Number Grade fuel, for dedicated fuel delivery infrastructures (that may or may not be connected to the grid) will be specified by CEN/TC 408.
- The decision was taken by majority, Germany and Sweden abstain.

- **Methane number** (parameter linked to the risk on knocking in engines, cf. octane number for liquid fuels)
- **Sulphur**
- **Siloxanes** (risk to engines) – Research needed
- **Trace components** that may (or can) have an effect on health
- **Exposure models** for these trace components
- **O₂, H₂**

..... **Enquiry to be launched mid 2013**

- **ISO/PC 252 : Natural gas fuelling stations for vehicles**
- **Votes on the ISO/CDs completed**
- **ISO/CD 16923** Compressed natural gas (CNG) vehicle filling stations
- **ISO/CD 16924** Liquefied natural gas (LNG) vehicle filling stations

- **Next stage** : Drafting of DIS by WG