



AGGM Austrian Gas Grid Management AG

Information on Gas Grid Access and Market Rules for Biomethane in Austria

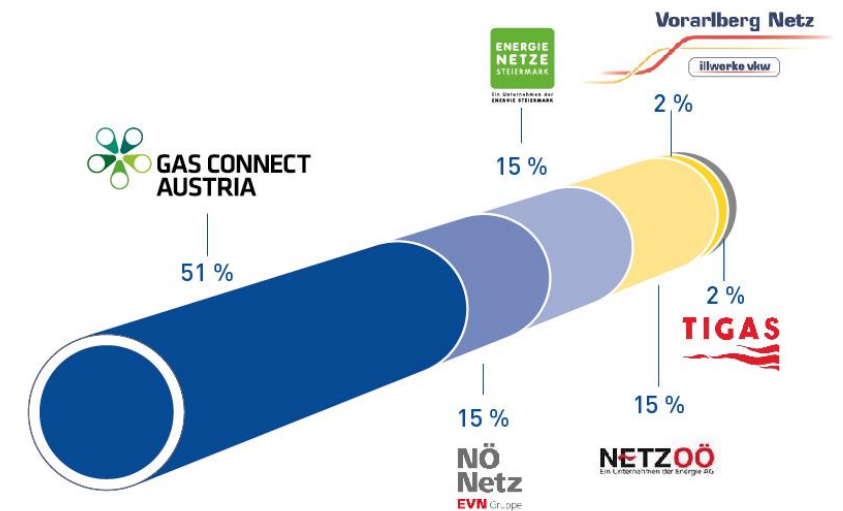
21.04.2022

▶ **AGGM Austrian Gas Grid Management AG** is as the Austrian distribution and market area manager responsible for:

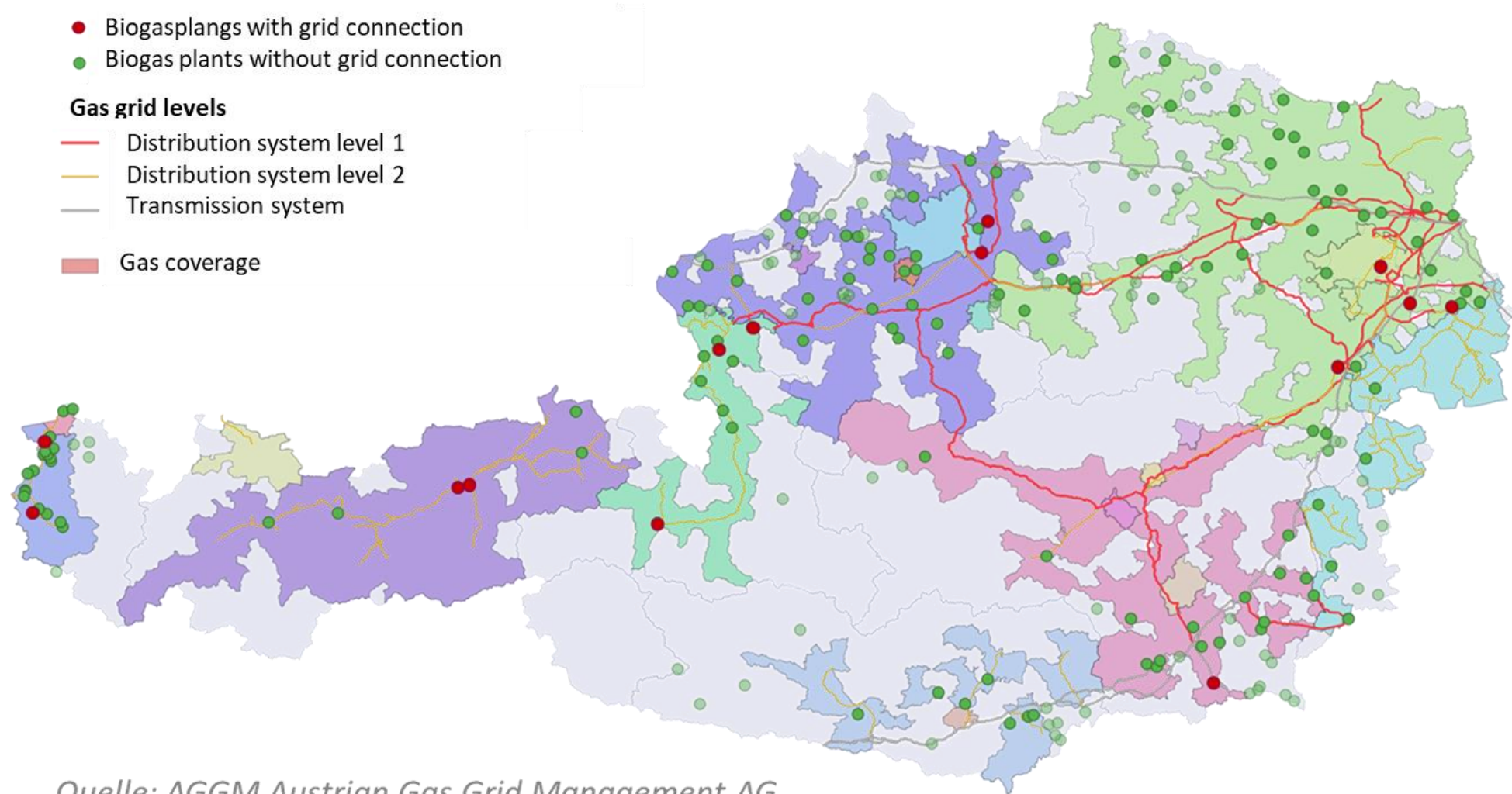
- ▶ **Network access- and capacity management**
- ▶ Preparation of the **capacity calculation model**
- ▶ Permanent **gas flow operation and management**
- ▶ Coordinated **congestion management and planning**
- ▶ Coordinated **network development planning** for transmission system
- ▶ **Long Term Planning** for the level 1 distribution system

▶ **Main Goals**

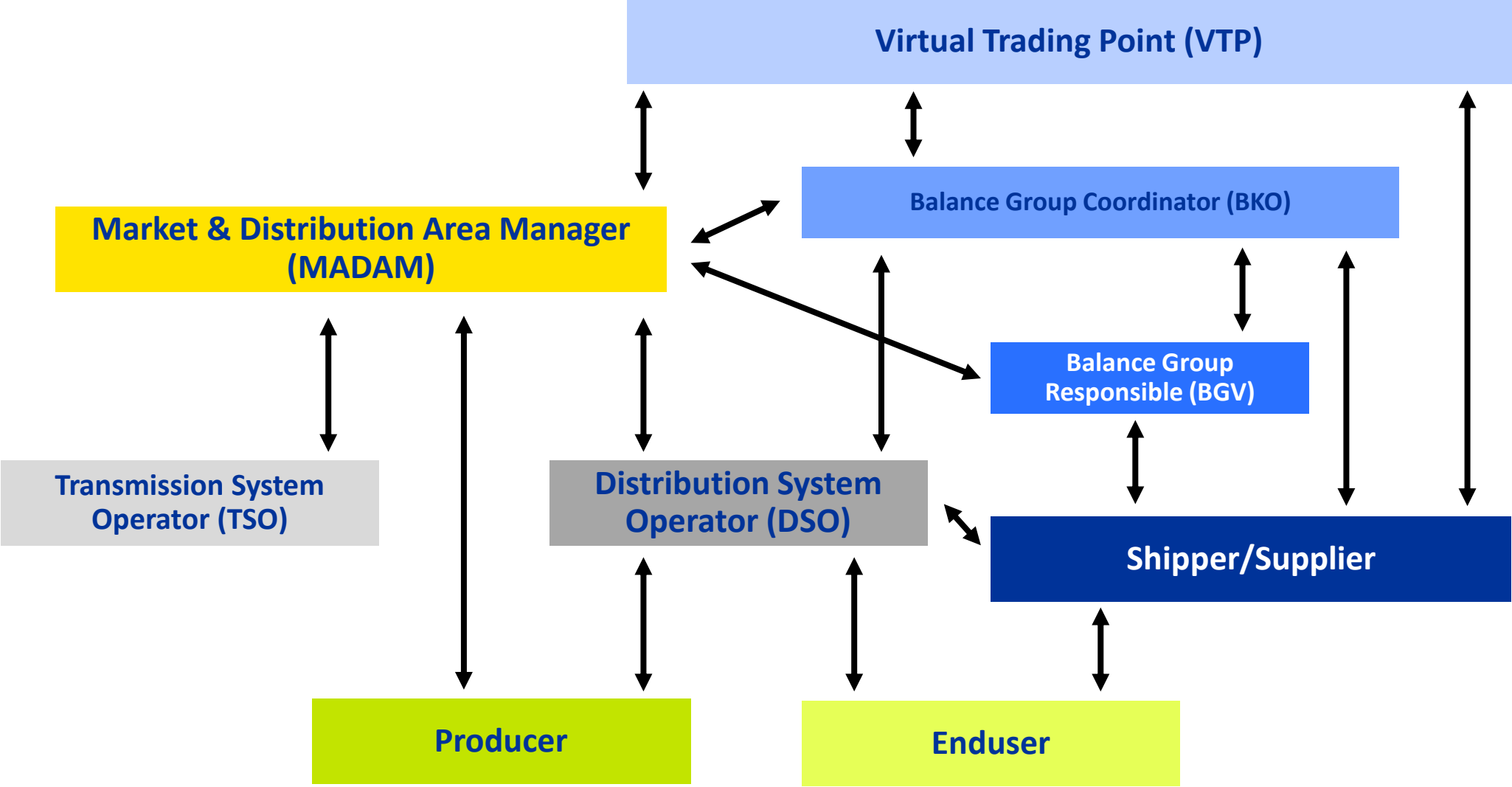
- ▶ **Ensuring the uninterrupted supply of gas** to Austrian gas consumers
- ▶ Balancing and **ensuring the stability of the Austrian gas network.**

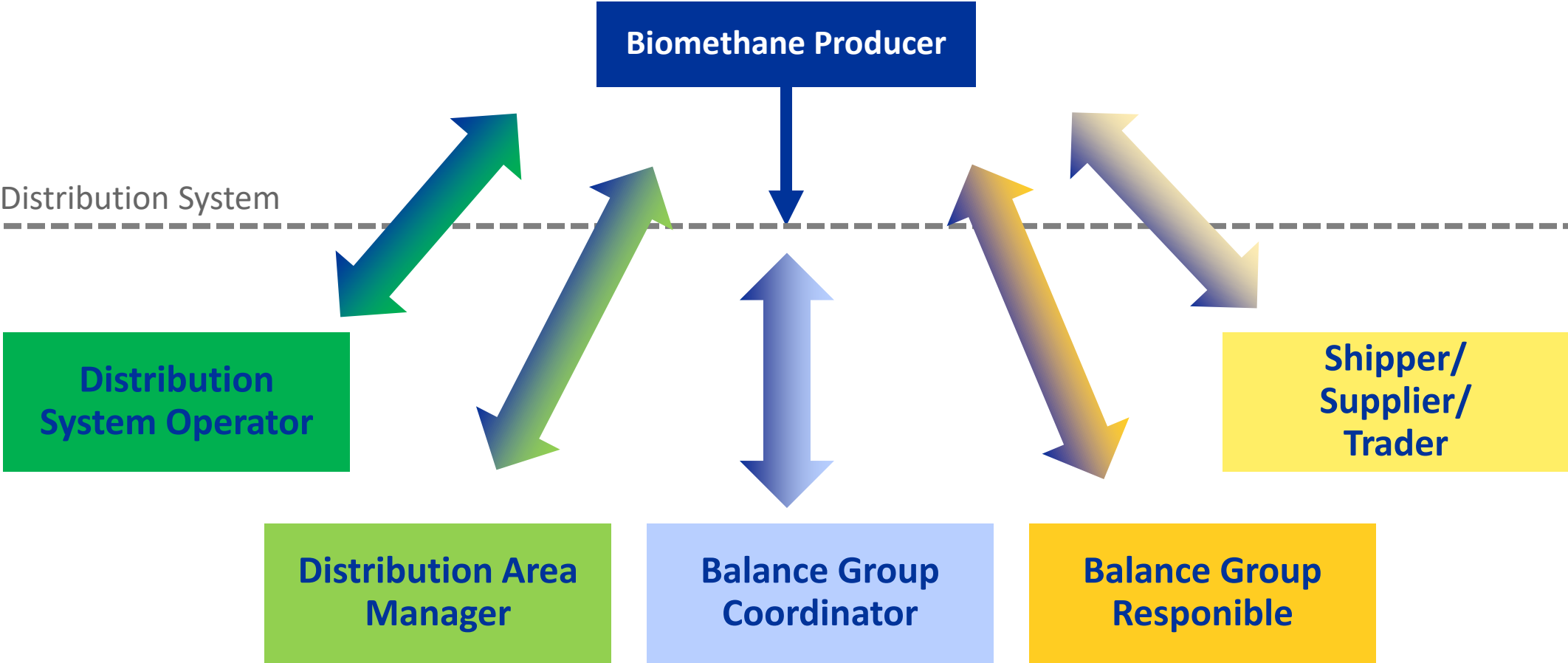


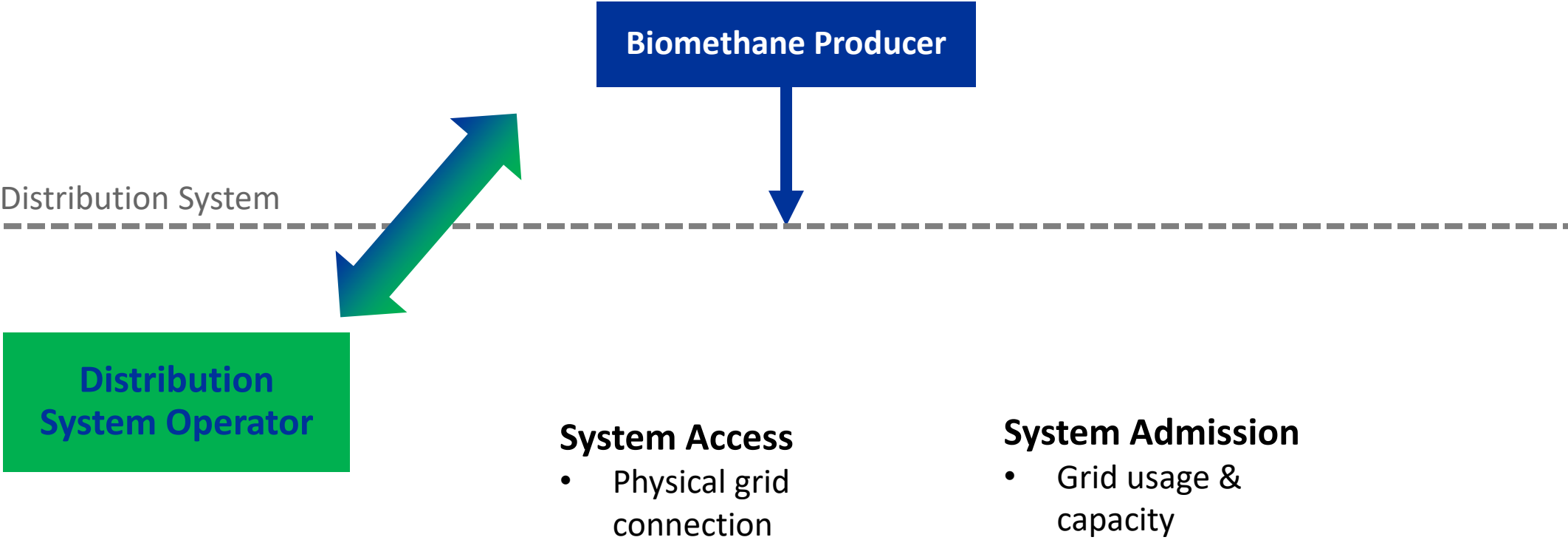
Overview of the Austrian gas grid



Quelle: AGGM Austrian Gas Grid Management AG







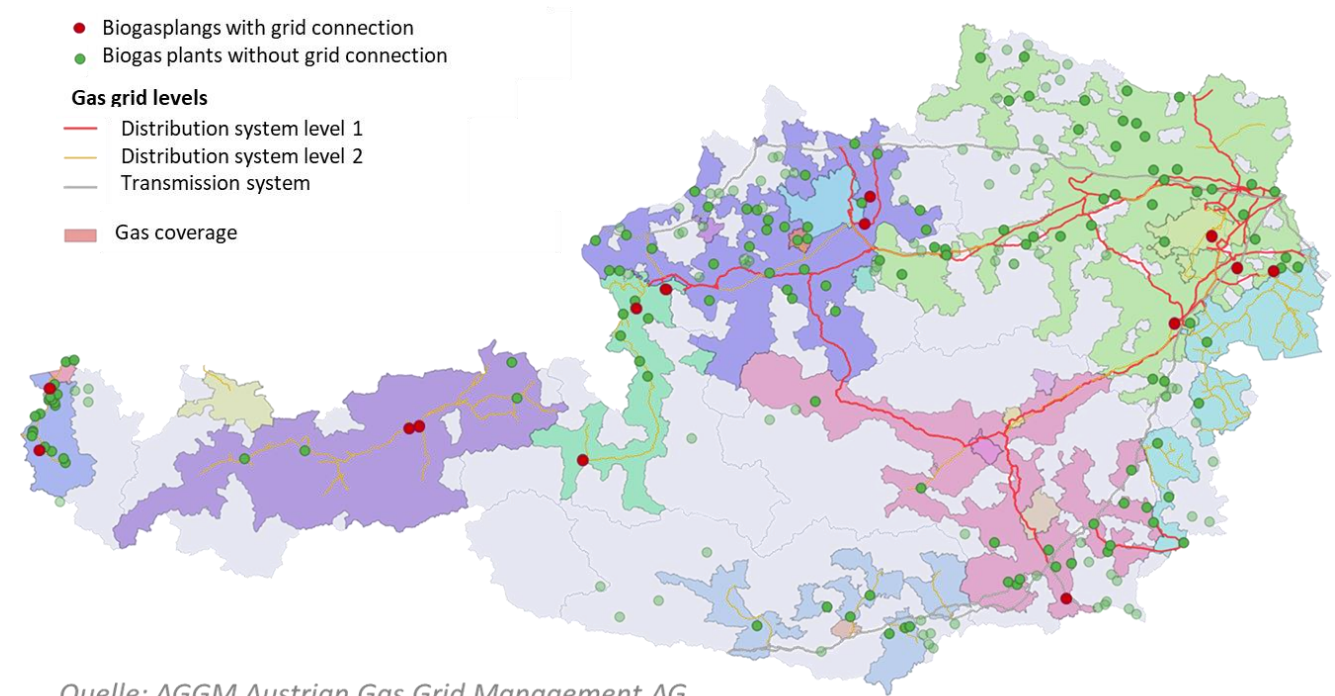
Gas Market Model Ordinance 2020

Annex I System access, system admission and capacity expansion

► First Contact: Local Distribution System Operator

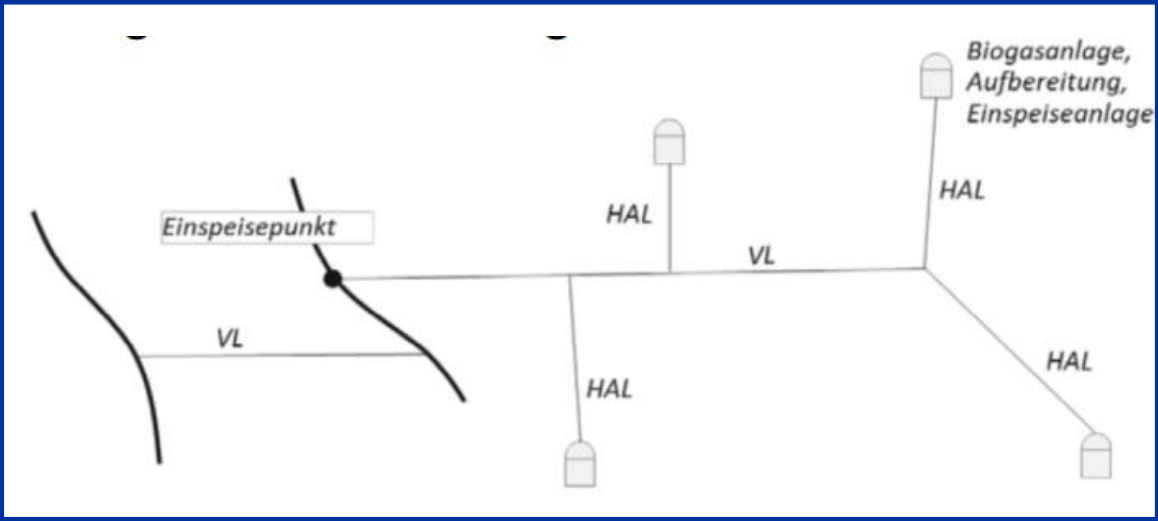
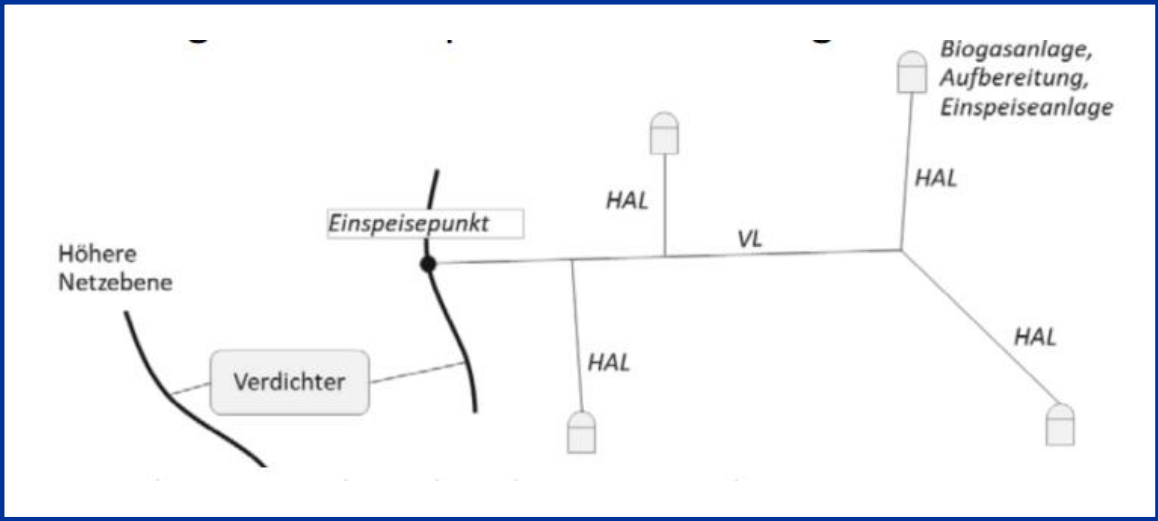
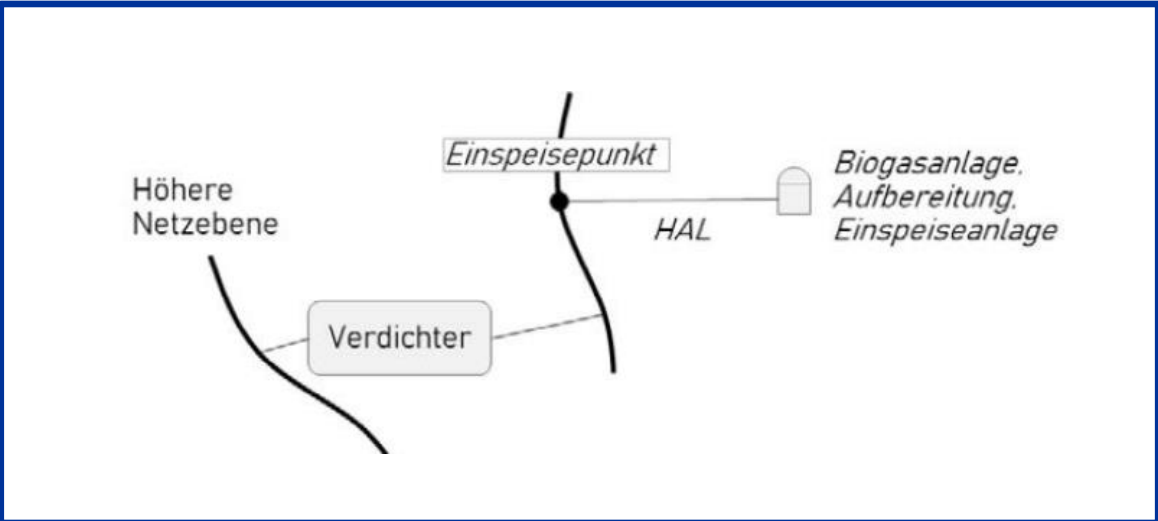
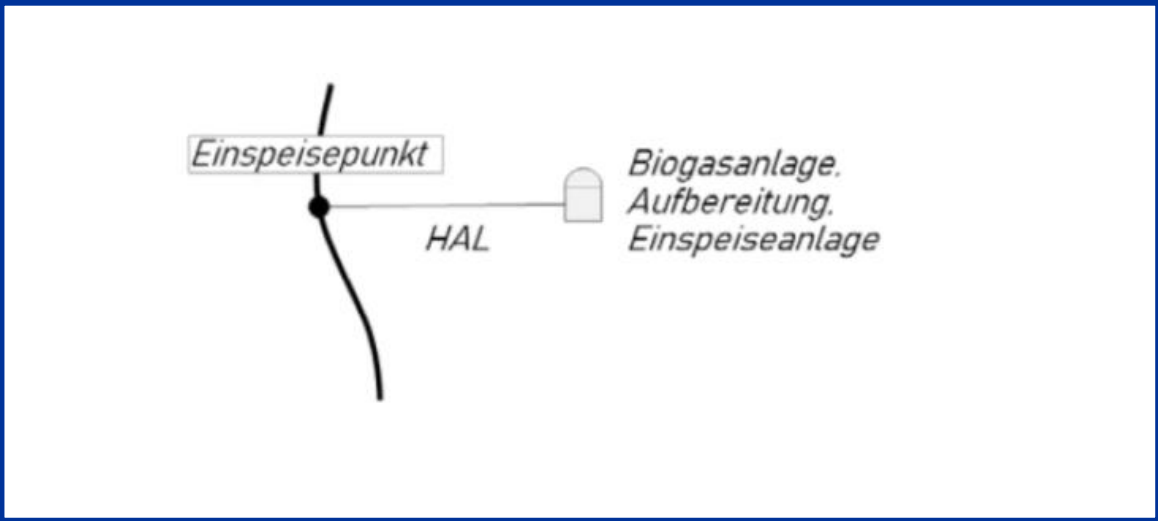
- Possible locations of the Biogas plant
- Delivered pressure after gas conditioning and treatment
- Biomethane quantities (capacity in MW & yearly production in MWh)
- Compression
- Odorization

– **Establishing of optimal grid connection point**



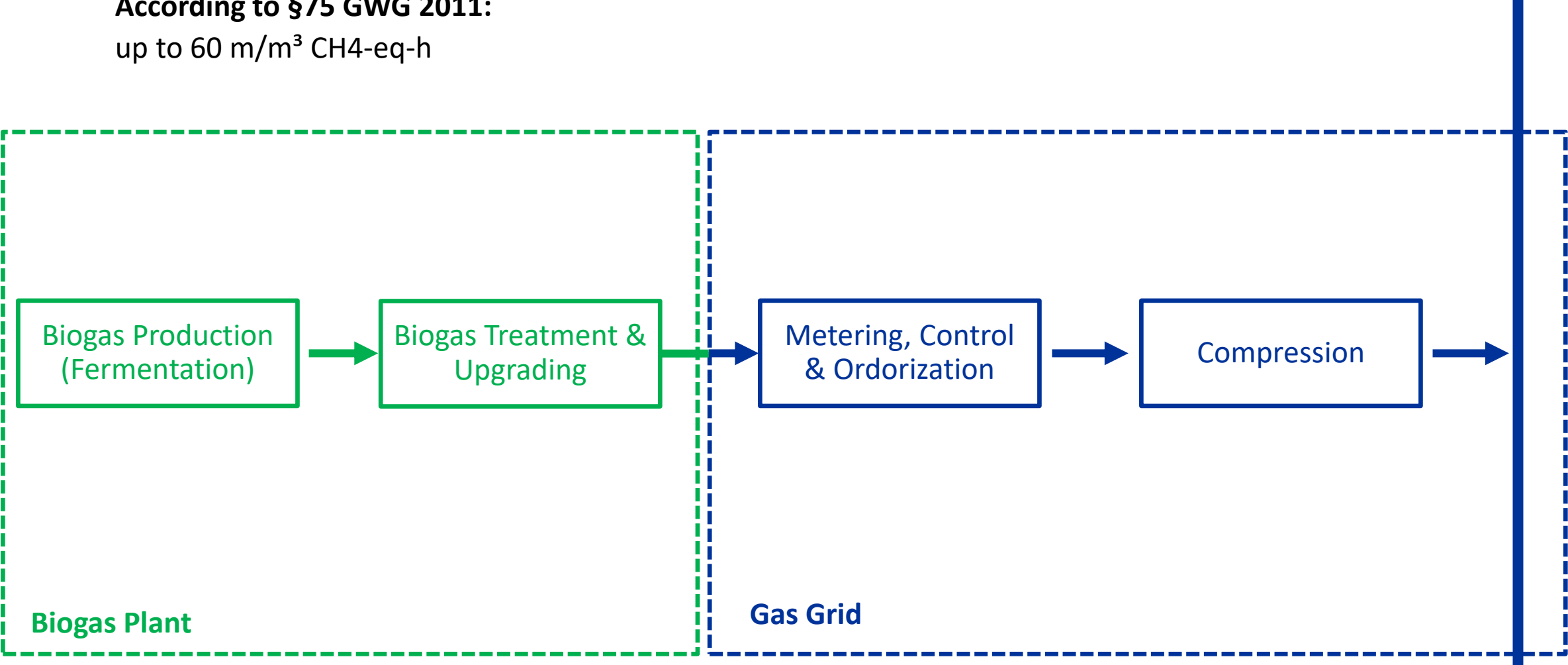
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Grid Connection concepts



Interface between Biomethane plant and Gas Grid

According to §75 GWG 2011:
up to 60 m/m³ CH₄-eq-h

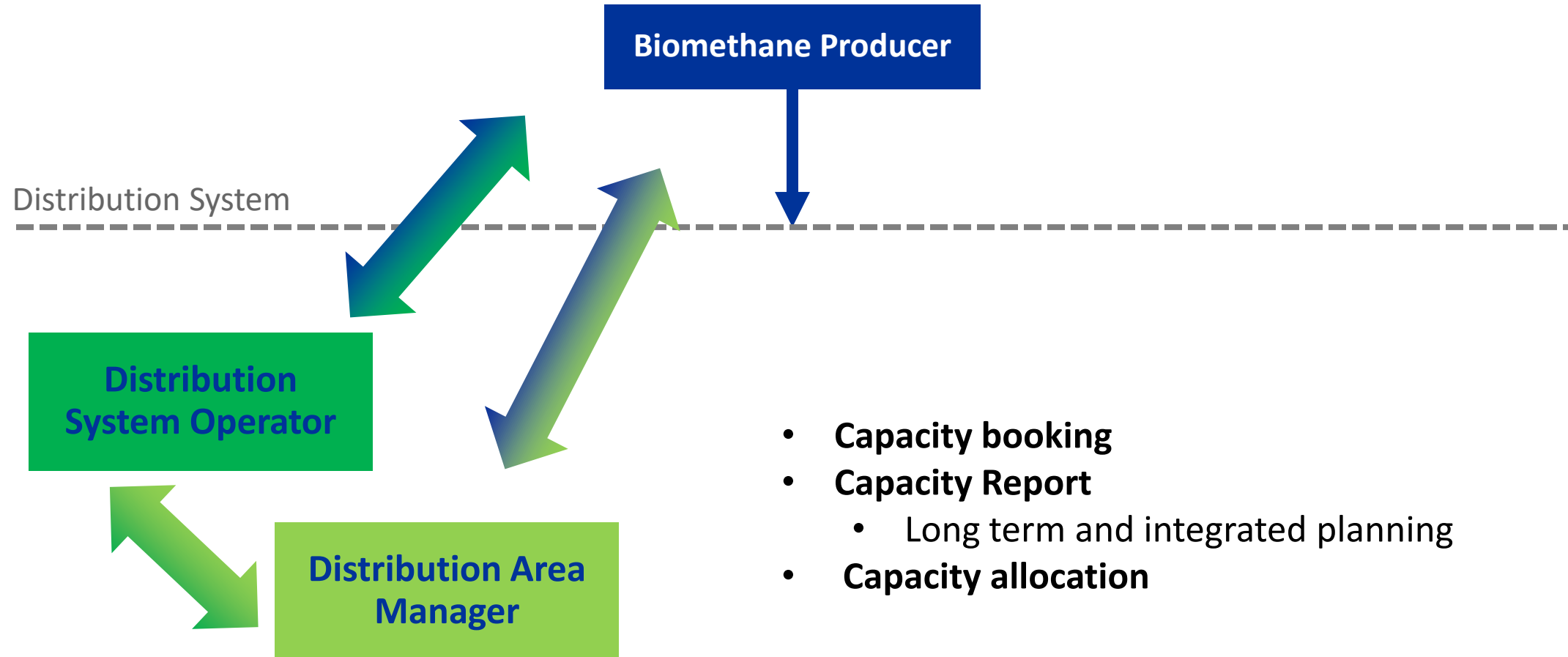


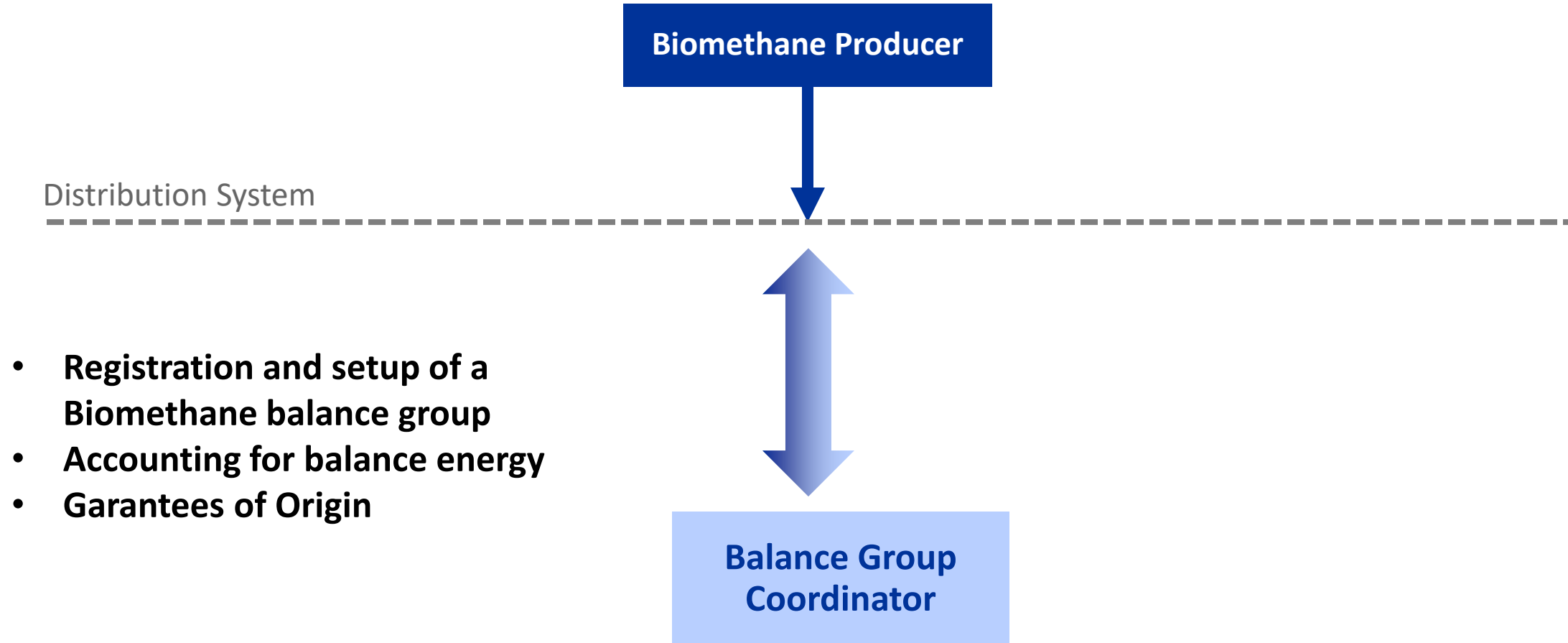
▶ ÖVGW Guideline GB210

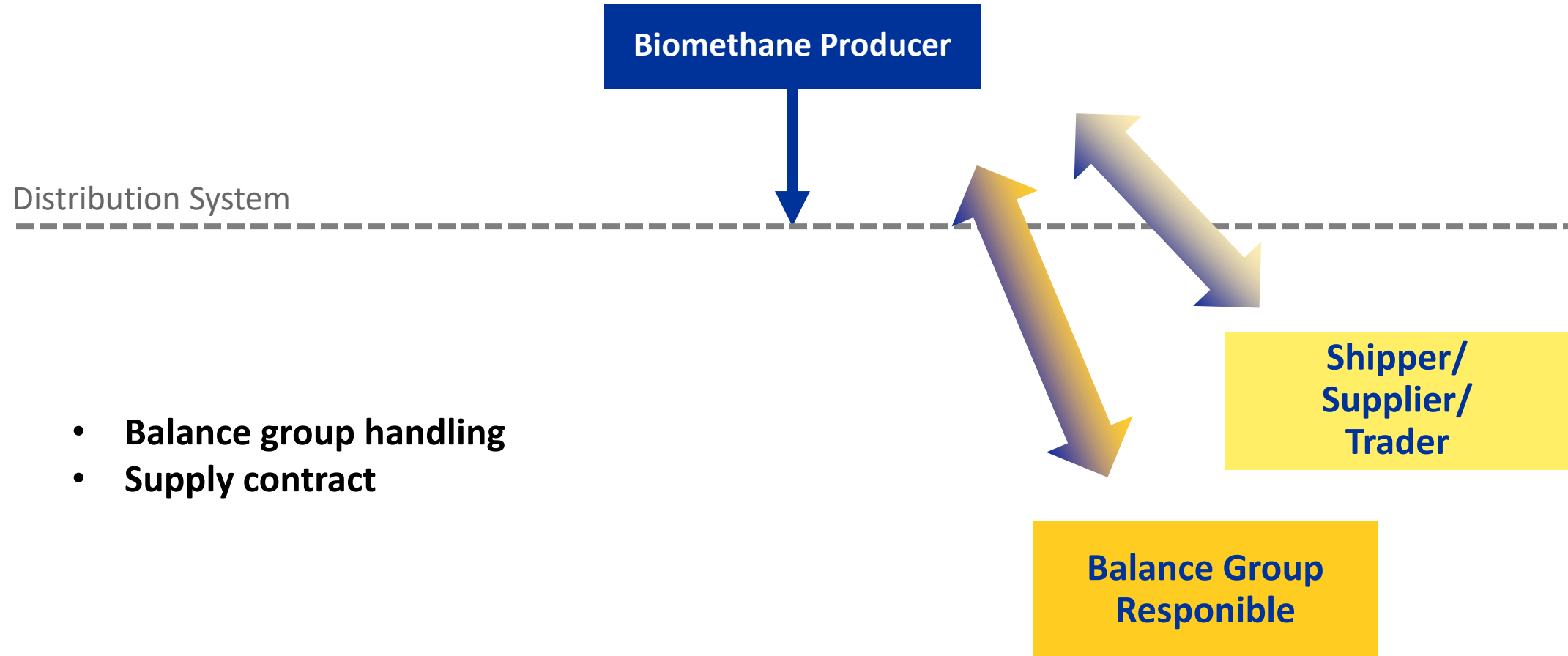
▶ Excerpt:

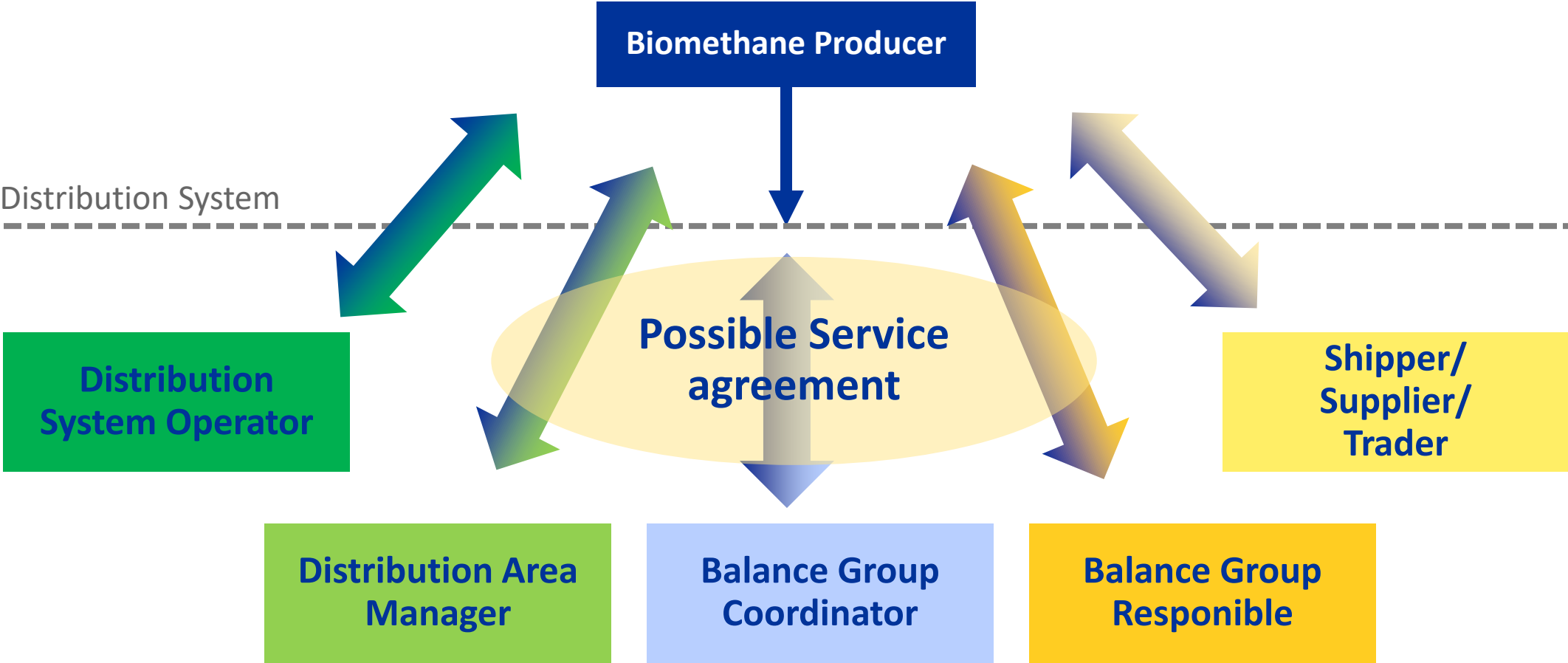
| | Min | Max. | Unit |
|-------------------|----------------|---------------|--------------------|
| Sulphur | - | 21 | mg/m ³ |
| Hydrogen sulphide | - | 5 | mg/m ³ |
| Mercaptan sulphur | - | 6 | mg/m ³ |
| Oxygen | - | 0.001% or 1%* | mol/mol |
| Carbon dioxide | - | 2,5% or 4%* | mol/mol |
| Carbon monoxide | - | 0,1% | mol/mol |
| Ammonia | - | 10 | mg/m ³ |
| Amine | | 10 | mg/m ³ |
| Nitrogen | - | 5% | mol/mol |
| Methane number | - | 85 | |
| Wobbe-Index | 13.25 | 15.81 | kWh/m ³ |
| Calorific value | 9.37 | 13.23 | kWh/m ³ |
| Relative density | 0.555 or 0.5** | 0.7 | - |
| Hydrogen | - | 10% | mol/mol |

*) However, where it can be proven that the gas does not flow to facilities that are sensitive to higher concentrations, such as underground storage facilities, a higher limit may be applied.









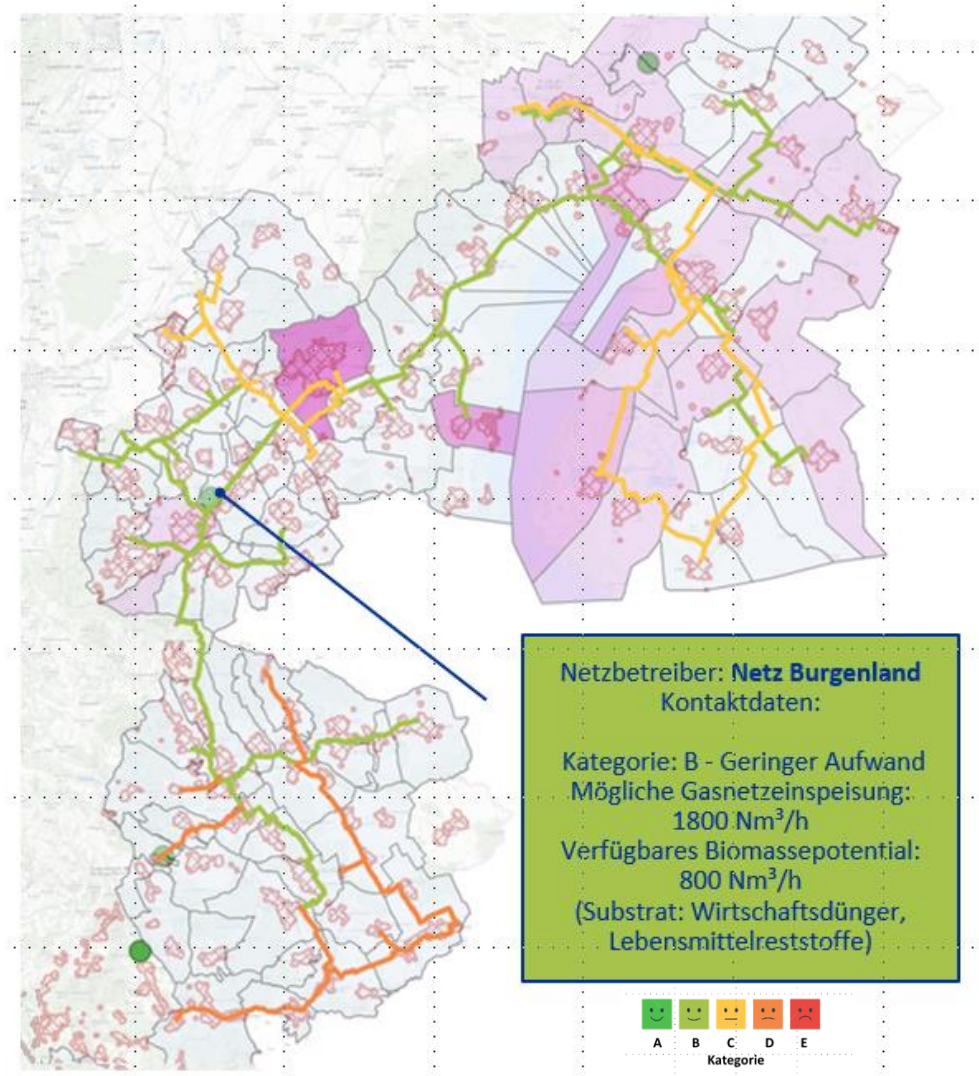
- ▶ GWG 2011 (Natural gas act)
- ▶ GMMO-VO 2020 (Market Model Ordinance)
- ▶ GSNE-VO (Gas System Utilization Fee Ordinance)

- ▶ ÖVGW Rules of Technology: Guideline GB210 on gas quality and properties

- ▶ General Terms and Conditions of balance group coordinator (AGCS and A&B)
- ▶ General Terms and Conditions of the market and distribution area manager (AGGM)
- ▶ General Terms and Conditions of distribution system operator

- ▶ <https://www.e-control.at/bereich-recht/verordnungen-zu-gas> (German)
- ▶ <https://www.e-control.at/en/recht> (English)
- ▶ <https://www.ris.bka.gv.at/>

- ▶ **Project: Entry Points for renewable gases**
 - ▶ <https://www.aggm.at/en/energy-transition/entry-points-for-renewable-gases>
 - ▶ The aim of the project is to create a web-based map showing the optimal feed-in (entry) points for renewable gases and the regional production and demand potential.
 - ▶ This map will provide **guidance to potential renewable gas producers on where their products can best be injected into the gas grid**. The map will be continuously maintained and adapted to current conditions.



The future is biomethane
The gas grid is ready!



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