Biomethane injection in France

Direction générale de l’énergie et du climat
Ministère de l'Ecologie, du Développement durable et de l'Energie

Février 2015

Stanislas REIZINE
Adjoint au chef de bureau des infrastructures gazières
Agenda

I. Objectives of the biomethane development

II. Key characteristics of the regulatory framework

III. Current and future development
Objectives of the biomethane development

Biomethane feed-in into the natural gas grids is promoted by the French government since November 2011 in order to:

1. contribute to the EU 2020 energy targets, in particular to achieve a 23% final energy consumption from renewable sources by 2020.

2. contribute to the ambitious targets of the upcoming French energy transition law (“Projet de loi relatif à la transition énergétique pour la croissance verte”).

3. increase biogas production as it is sometime limited by the lack of heat opportunities.
Key characteristics of the regulatory framework

- Every biogas producer can contract with any gas supplier to sell, for 15 years, its biomethane production;
- The contracting gas supplier receives a payment from a compensation fund to cover the difference between the cost of biomethane and the cost of natural gas on the market. The relevant cost of biomethane is determined by the Ministry of Ecology;
- All gas consumers contribute to the compensation fund;
- The contracting gas supplier receives a Guarantee of Origin (GoO) provided by a National operator in order to sell “Green” gas offers.
- The Ministry also identified voluntary “last resort buyer”;
- GrDF has been appointed for 5 years as the GoO register operator.
Biomethane feed-in tariffs (1/2)

- The type of unit that can feed-in biomethane into the grid is defined by the Ministry after appropriate environmental, health and safety assessments;
- The feed-in tariff applicable to the different type of biomethane unit:

![Graph showing the feed-in tariff (€2015/MWh) for different injection capacities (nm3/h) for Landfills, Waste from local authorities, households, Agricultural residues, forestry and agro-food, and Wastewater treatment plant sludge.](image)
Biomethane feed-in tariffs (2/2)

- Biomethane tariffs were updated in June 2014 to enable wastewater treatment plant to feed-in their biogas production into the gas grid;
- Biomethane tariffs can be mixed for the biogas units that would use different kind of waste type (household waste and agricultural residues, …);
- A special tariff was introduced for any unit that would value their biogas production both through cogeneration and through the gas grid (“tarif double valorisation”);
- Finally, biomethane producers have the obligation to provide the Ministry with the relevant data regarding their costs in order to participate if necessary in the update of the tariffs.
The regulatory framework (simplified… 1/3)

Gas suppliers

Gas markets

Gas and biomethane flow

Financial flow

Guarantee of Origin (GoO)

Gas consumers

Provide natural gas

Sell gas
The regulatory framework (simplified… 2/3)

**Energy regulator**
- Calculates the compensations and the consumer contribution

**Compensation fund**
- Compensates the difference between the cost of biogas and the cost of natural gas
- Pay a contribution to support biomethane

**Biomethane producer**
- Buy the biomethane
- Provide the biomethane
- Provide natural gas

**Gas suppliers**
- Sell gas and biomethane

**Gas consumers**
- Buy the biomethane

**Gas markets**
- Provide natural gas
- Gas and biomethane flow
- Financial flow
The regulatory framework (simplified... 3/3)

- **Energy regulator**: Calculates the compensations and the consumer contribution.
- **Compensation fund**: Compensates the difference between the cost of biogas and the cost of natural gas.
- **Biomethane producer**: Buy the biomethane and provide the biomethane.
- **Gas suppliers**: Provide the biomethane, sell gas and biomethane, and can provide "green" offers.
- **Gas consumers**: Pay a contribution to support biomethane.
- **National register Of GoO**: Provides GoO.
- **Gas markets**: Provides natural gas.

**Flow arrows:**
- **Gas and biomethane flow**
- **Financial flow**
- **Guarantee of Origin (GoO)**
Current and future development (1/2)

- The regulatory framework has been introduced in November 2011;
- Today, 6 biomethane units are currently operating in France;
- The annual injection volume will be more than 70 GWh in 2015;
- This is enough to satisfy the annual gas consumption of about 6,000 households.
More than 600 biomethane “living” projects are being developed in France;

400 projects for the distribution grid, 200 projects for the transmission grid;

A specific target for biomethane production in 2030 will be set after the vote of the energy transition law.

Source: GrDF (November 2014)
Thank you
Décret n° 2011-1594 du 21 novembre 2011 relatif aux conditions de vente du biométhane aux fournisseurs de gaz naturel

Décret n° 2011-1597 du 21 novembre 2011 relatif aux conditions de contractualisation entre producteurs de biométhane et fournisseurs de gaz naturel

Décret n° 2011-1596 du 21 novembre 2011 relatif aux garanties d'origine du biométhane injecté dans les réseaux de gaz naturel

Décret n° 2011-1595 du 21 novembre 2011 relatif à la compensation des charges de service public portant sur l'achat de biométhane injecté dans les réseaux de gaz naturel

Arrêté du 23 novembre 2011 fixant la nature des intrants dans la production de biométhane pour l’injection dans les réseaux de gaz naturel

Arrêté du 23 novembre 2011 fixant les conditions d'achat du biométhane injecté dans les réseaux de gaz naturel (tariff)

Arrêté du 23 novembre 2011 fixant la part du montant des valorisations financières des garanties d'origine venant en réduction des charges de service public portant sur l'achat de biométhane injecté dans les réseaux de gaz naturel donnant droit à compensation

Arrêté du 23 novembre 2011 relatif aux modalités de désignation de l’acheteur de biométhane de dernier recours