



# ASSESSMENT OF COMPETITION INDICATORS AND MARKET PRICES WITHIN MEDREG MEMBERS

Works' Methodology Description

Working Group on Gas

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## Acknowledgements

This report was prepared by the MEDREG Gas Working Group (GAS WG) in the period June 2015-December 2015.

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## 1. Introduction

Wholesale and retail completion is a common target among MEDREG members. In spite of that, there are countries that still lack such element in their gas market. The majority however is pursuing an open and competitive gas market.

Natural gas consumption studies show a large diversity among the Mediterranean countries. While almost half of the gas consumption is allocated to the residential/commercial sectors, the other half is nearly equally shared by power generation and industry. A higher level of residential gas consumption is not expected considering the warm climate of the region. On the production side perspective, it is important to notice that some countries do not even have access to gas, other countries do not have any gas production and others are gas exporters<sup>1</sup>.

The purpose of this work is to provide an assessment of natural gas market competition indicators among Mediterranean countries and also analyze the retail gas market prices in each of the countries. There are four main deliverables for this assessment :

- The **first deliverable**, the work's methodology description, which is presented in this report.
- The **second deliverable**, to be finished during the first semester of 2016, correspond to a questioner by which it will be possible to obtain a brief description about the natural gas market status in each MEDREG member and the natural gas prices applied for each consumer type in each country.
- A **third deliverable**, to be obtained until the October/November 2016, corresponds to the Final Assessment Report with the compilation of the different MEDREG members inputs concerning competition market indicators and retail gas prices.
- To complete the work it is intended to ask to each country a case study with a best practice related with the natural gas tariff methodology, with a practical case study to be chosen by each country. The main goal of this **fourth deliverable** is to share good practices and information among MEDREG members regarding the computation of access tariffs to transmission networks, distribution networks, LNG Terminal and underground storage. The output of this fourth deliverable can be added to the Final Report or presented independently, as an autonomous document, until October/November 2016.

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<sup>1</sup> MEDREG Gas Working Group – Second Benchmarking Report (Med14-18GA-6 GAS).

## 2. Work's methodology description

The promotion of effectively functioning competitive energy markets is an important way to protect customers' interests. In this context, to ensure that markets operate more effectively it is important to provide greater transparency on information to all parties, including customers.

The report "Assessment of Competition Indicators and Market prices within MEDREG members" intends to provide a review of the level of competition in the retail gas markets for household and non-household consumers, across MEDREG members.

Given the diversity of situations in the different countries this assessment work intends to evaluate the retail natural gas market of each country, looking for the main market competition indicators (chapter 2.1.). The assessment work also includes the collection and the analysis of data related with the retail gas prices of each country, for the household and non-household segments (chapter 2.2.).

At present time there are several realities among the MEDREG members concerning the natural gas markets liberalization process:

- For some countries the **natural gas markets are already fully open**, with different suppliers providing several commercial offers to customers, customers having the possibility to choose their supplier and gas prices being established by negotiation between the two parties (customer and supplier).
- Other situations exist among MEDREG members where the **natural gas markets are still closed to competition or in the beginning of liberalization process**. In this context the exercise of supplier's choice is limited, with regulated natural gas prices being established by the competent authority (NRAs or Government).

The information from the different MEDREG members will be obtained by a questionnaire, which will be divided in two different parts. The first part will include direct questions concerning the market competition indicators. The second part will include tables to be filled out and questions about retail gas prices for household and non-household customers. The questions will be based in the most recent situation of each country (31<sup>st</sup> December 2014).

## 2.1. Gas market competition indicators

In this section are described the questions that will be addressed to each MEDREG member in order to evaluate the main natural gas competition indicators: number of active suppliers, market concentration index, product differentiation, consumer switching activity and level of liberalization in the natural gas market.

Previously it is important to obtain a general view about the retail natural gas market in each country, with the following information to be provided by each MEDREG member:

- **Natural gas consumption in the country, during 2014 (bcm)**
- **Percentage of natural gas demand in the household segment, during 2014 (bcm)**
- **Percentage of natural gas demand in the non-household segment, during 2014 (bcm)**
- **Share of natural gas in power generation, during 2014 (bcm)**
- **Number of gas consumers in the country (31<sup>st</sup> December 2014)**
- **Percentage of customers in the household segment (31<sup>st</sup> December 2014)**
- **Percentage of customers in the non-household segment (31<sup>st</sup> December 2014)**

### 2.1.1. Level of liberalization in the natural gas market

Full liberalization otherwise known as full retail competition or full deregulation is when household and non-household customers are all eligible to choose their natural gas supplier.

This indicator can be reached with breakdown of the number of natural gas customers and consumption in the liberalized market by customer segment, in each MEDREG member, at the end of 2014 (31st December 2014).

For MEDREG members where the liberalization process is not in place the following questions will not be answered. In these situations it will be important to obtain information with a regulatory overview concerning the liberalization process.

Questions:

- **What are the thresholds of eligibility to switch to the liberalized market?**
- **What was the percentage of total natural gas customers in the liberalized gas market, in the end of 2014 (31st December 2014)?**
- **What was the percentage of household natural gas customers in the liberalized gas market, in the end of 2014 (31st December 2014)?**
- **What was the percentage of non-household natural gas customers in the liberalized gas market, in the end of 2014 (31st December 2014)?**
- **What was the percentage of natural gas consumption in the liberalized gas market, in the end of 2014 (31st December 2014)?**
- **What was the percentage of household natural gas consumption in the liberalized gas market, in the end of 2014 (31st December 2014)?**
- **What was the percentage of non-household natural gas consumption in the liberalized gas market, in the end of 2014 (31st December 2014)?**

### 2.1.2. Number of active suppliers

The objective is to obtain information about the number of active suppliers, in each MEDREG member, for the household and non-household segments, at the end of 2014 (31st December 2014).

It is important to differentiate the number of suppliers with a nationwide activity and the number of suppliers with just local activity.

Although retail gas markets with a higher number of active suppliers (total and nationwide) are seen as more competitive, it is also evident that markets in some countries have a very strong regional/local component where competition at regional/local level can be more intensive than markets at national level.

Questions:

- **How many natural gas active suppliers you have in your country (31st December 2014)?**
- **How many natural gas active suppliers you have for household segment (31st December 2014)?**
- **For household segment how many active suppliers have nationwide activity and how many have only local activity (31st December 2014)?**
- **How many natural gas active suppliers you have for non-household (non-household) segment (31st December 2014)?**
- **For non-household segment how many active suppliers have nationwide activity and how many have only local activity (31st December 2014)?**

### 2.1.3. Market concentration index

Market concentration index can be expressed as the sum of market shares of the three largest suppliers in the natural gas market and also the number of main suppliers (i.e. suppliers with market shares equal to or higher than 5%), in each MEDREG member, at the end of 2014 (31st December 2014).

The best conditions for competitive gas markets at the national level exist in those markets where the three largest suppliers have a smaller share of the market and where several main suppliers operate in the market.

Questions:

- **At the local level there are network operators that are also natural gas suppliers? In these cases, the customers from these regions may choose a different supplier? If yes, please describe the number of suppliers with market shares equal to or higher than 5% (household and non-household segment), at the end of 2014 (31st December 2014)?**

- **What was the market share of the largest natural gas supplier, in percentage of total national gas consumption, at the end of 2014 (31st December 2014)?**
- **What was the market share of the three largest natural gas suppliers, at the end of 2014 (31st December 2014)?**
- **What was the market share of the three largest natural gas suppliers (household segment), at the end of 2014 (31st December 2014)?**
- **What was the market share of the three largest natural gas suppliers (non-household segment), at the end of 2014 (31st December 2014)?**
- **How many natural gas suppliers existed with market shares equal to or higher than 5%, at the end of 2014 (31st December 2014)?**
- **How many natural gas suppliers existed with market shares equal to or higher than 5% (household segment), at the end of 2014 (31st December 2014)?**
- **How many natural gas suppliers existed with market shares equal to or higher than 5% (non-household segment), at the end of 2014 (31st December 2014)?**

#### 2.1.4. Product differentiation

This indicator can be reached with the number of commercial offers for natural gas household segment, in each MEDREG member, at the end of 2014 (31st December 2014).

For non-household segment this indicator is more difficult to be evaluated as the offers are often customized for each natural gas customer.

Over the last couple of years, retail energy markets have witnessed an increased evidence of product innovation. The innovation in retail products includes characteristics such as contract duration, price preservation periods, dual-fuel offers, additional service provision or renewable/green features.

Overall product diversification strategies are increasing not only for new entrants, but also for incumbent suppliers, who are adjusting their schemes in order to enhance consumer loyalty, market shares and margins.

Questions:

- **How many natural gas commercial offers existed at the end of December 2014, for household segment (total offers)?**
- **How many of those offers are single product (just commercial offer for gas)?**
- **How many of those offers are dual (natural gas and electricity offers)?**
- **How many of those offers include services (power quality services, energy efficiency services, engineering services to ensure compliance with environmental regulation,...)?**

### 2.1.5. Consumer switching activity

This indicator can be reached with the number of customers changing gas suppliers in the total number of customers, for the residential and non-residential segment, in each MEDREG member, at the end of 2014 (31st December 2014).

Consumer switching rates are an important dimension of energy market competitiveness and have the advantage of being objective, measurable and comparable between markets.

However, while higher switching rates are indicative of more competitive markets, they must be carefully interpreted and not looked in isolation from other competition indicators.

Switching rates are, for example, sometimes higher during the early stages of market opening, after consumers first exercise their choice, but may then stabilize as a market matures. On the other hand, if consumers are satisfied with their current suppliers they may have no reason to change supplier (e.g. their current supplier delivers competitively priced products and good quality service) switching rates may be low even in a very competitive market.

Questions:

- **How many customers changed gas suppliers in the total number of customers, for the household segment, at the end of 2014 (31st December 2014)?**
- **How many customers changed gas suppliers in the total number of customers, for the non-household segment, at the end of 2014 (31st December 2014)?**

### 2.1.6. Additional indicators

According to the Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009, concerning common rules for the internal market in natural gas, energy poverty was considered a growing problem in the Community. In result of such, Member States which are affected should develop national action plans or other appropriate frameworks to tackle energy poverty, aiming at decreasing the number of people suffering such situation. In any event, Member States should ensure the necessary gas supply for vulnerable customers. In doing so, an integrated approach, such as in the framework of social policy, could be used and measures could include social policies or energy efficiency improvements. In particular, it should be ensured that there are adequate safeguards to protect vulnerable customers.

With regard to vulnerable customers protection, countries may take appropriate measures to protect final customers in remote areas who are connected to the gas system, and may appoint a supplier of last resort with regulated prices for customers connected to the gas system (namely social gas tariffs).

In this context, the concept of vulnerable customers may refer to:

- Energy poverty;
- Prohibition of disconnection of natural gas to such customers in critical times;
- Measures to protect final customers in remote areas.

The Directive 2009/73/EC also establishes a set of measures of consumer protection that apply jointly with the rules on consumer protection, in particular on the protection of consumers in respect of distance contracts and unfair terms in consumer contracts.

Concerning the dispute settlement, consumers shall benefit from a transparent, simple and inexpensive procedures for dealing with their complaints. In particular, all consumers shall have the right to a good standard of service and complaint handling by their gas service provider. Such out-of-court dispute settlements procedures shall enable disputes to be settled fairly and promptly, in a reasonable time period.

In what regards the principle of procedural economy, it's important to recall the previous questionnaires and the reports of the consumers working group of MEDREG, which also includes the issues of social tariff and the last resort supplier. Thereby, and when applicable, the answers to this document may refer to the answers already included in previous questionnaires.

Additional indicators can be included in this study in order to evaluate the gas liberalization process:

- **Are there in place effective means of dispute settlement for all consumers?**
- **Are there in place promptly, inexpensive and effective complaint handling procedures?**
- **It is defined what is understood by vulnerable customers? If so, please describe it and display the eligibility criteria.**
- **Are there in place an integrated approach aiming the decreasing of energy poverty, such as social policies, energy efficiency improvements or social gas tariffs?**
- **Are there last resort suppliers in your country? If so, please describe what market segment it covers (household/non-household), how many customers are supplied, if the applicable tariffs have some penalty or discount depending of the consumers vulnerability.**

## 2.2. Retail prices for natural gas consumers

The liberalization status of the gas markets affects the data collection of retail prices and the methodology to be used must be in line with the market characteristics. In this context and in order to accomplish our objectives, it is recommended to use different methodologies to collect the natural gas retail prices among the MEDREG members. These methodologies have to be harmonized among the different countries so that comparable results are ensured.

The EUROSTAT methodology is adopted in European countries. With this methodology it is collected the information about retail gas prices achieved by the so called consumer bands, for household and non-household consumers. These prices are reported to EUROSTAT by each country as national average prices, calculated using the gas prices reported by the different gas suppliers in each country, over a pre-defined period (e.g. 6-months period) and are based on a system of standard consumption bands defined by a range of annual gas consumption.

By the other hand, for the gas markets with mostly regulated prices, where energy consumers are dominantly supplied under the regulated price regime, the information about natural gas retail prices can be achieved by “standard” household and non-household end-users profiles defined by their annual consumption and prices being calculated for the pre-defined consumption and modulation characteristics. Prices recorded need to be based on the tariffs, contracts, conditions and rules in force in a pre-defined period of time.

### 2.2.1. EUROSTAT methodology

This methodology will be used by all the MEDREG members that already report retail natural gas prices to EUROSTAT. The information to be shared will correspond to the retail gas prices for the second semester of 2014.

In markets where the process of liberalization is already in place, with different market suppliers, the gas tariffs or price schemes vary from one supplier to another. They may result from negotiated contracts, especially for large non-household users. For smaller consumers, they are generally set according to the amount of gas consumed along with a number of other characteristics.

In this context there is no single price for natural gas. In order to compare prices over time and between countries, it can be used the so called EUROSTAT methodology where natural gas prices are calculated for selected consumption bands for household and non-household consumers.

- There are in total three different types of households for which gas prices are collected following different annual consumption bands. Across non-household / industrial users, retail gas prices are collected for a total of six different consumption bands.
- The natural gas prices presented cover average prices over a period of six months: semester 1 prices are average prices between January and June of each year, semester 2 prices are average prices between July and December of each year. For the present exercise only the prices of second semester (2nd semester 2014) must be sent.
- Prices include the basic price of the gas, transmission and distribution charges, balancing and other services.

- The retail gas prices are collected and published considering three levels of taxation: prices excluding taxes and levies, prices excluding VAT and other recoverable taxes and prices including all taxes, levies and VAT.
- Prices must be presented in Euros, using the prices in national currency of each country and the respective exchange rate.

### Retail gas prices (2nd semester 2014):

Household end-user	Annual gas consumption (GJ)		Gas Annual Consumption (GJ)	Retail gas prices (€/kWh)		
	Lowest	Highest		Prices excluding taxes and levies	Prices excluding VAT and other recoverable taxes	Prices including all taxes, levies and VAT
Band-D1		< 20				
Band-D2	20	200				
Band-D3	< 200					

Industrial end-user	Annual gas consumption (GJ)		Gas Annual Consumption (GJ)	Retail gas prices (€/kWh)		
	Lowest	Highest		Prices excluding taxes and levies	Prices excluding VAT and other recoverable taxes	Prices including all taxes, levies and VAT
Band-I1		< 1000				
Band-I2	1 000	10 000				
Band-I3	10 000	100 000				
Band-I4	100 000	1 000 000				
Band-I5	1 000 000	4 000 000				
Band-I6	> 4 000 000					

Notwithstanding the mentioned above, the methodology used in prices report it's a NRA decision. Thus, if is different from EUROSTAT methodology the NRA should, in response to this document, refer it explicitly and describe the methodology used.

#### 2.2.2. Methodology with "standard" household and non-household end-user profiles

This methodology must be used by all the MEDREG members where the EUROSTAT methodology is not being applied.

As previously mentioned for the gas markets with mostly regulated prices, where energy consumers are dominantly supplied under the regulated price regime, the information about natural gas retail prices can be achieved by "standard" household and non-household end-users profiles defined by their annual consumption / modulation and prices being calculated for the pre-defined consumption characteristics. These prices recorded are to be based on the tariffs, contracts, conditions and rules in force in the end of December 2014.

- For countries that are at present time still close to competition in the retail gas market the prices to be used must correspond to the regulated gas prices established by NRAs/Government of each country.
- For countries where the retail gas market liberalization process is already in progress the prices to be used can be a mix of market prices of the dominant or dominants suppliers (market share > 50%), which can include the regulated tariffs.

## Gas consumption and modulation levels

In both situations described previously it is necessary to define a “standard” gas consumption level and modulation<sup>2</sup> for the household and non-household customer. The main goal is to have representative consumption levels for the different MEDREG members that we know have very different consumption natural gas levels.

For the household gas customer it will be used three different “standard consumers”:

- **Household consumer 1**
  - Annual consumption: 10 GJ/year (2 778 kWh/year)
  - Modulation: 50 days / 1 200 hours (if applicable)
- **Household consumer 2**
  - Annual consumption: 100 GJ/year (27 778 kWh/year)
  - Modulation: 50 days / 1 200 hours (if applicable)
- **Household consumer 3**
  - Annual consumption: 1 000 GJ/year (277 778 kWh/year)
  - Modulation: 50 days / 1 200 hours (if applicable)

For the non-household gas customer it will be used six different “standard consumers”:

- **Non-household consumer 1**
  - 500 GJ/year (138 889 kWh/year)
  - Modulation: 200 days / 1 600 hours
- **Non-household consumer 2**
  - 5 000 GJ/year (1 388 889 kWh/year)
  - Modulation: 200 days / 1 600 hours
- **Non-household consumer 3**
  - 50 000 GJ/year (13 888 889 kWh/year)
  - Modulation: 250 days / 4 000 hours
- **Non-household consumer 4**
  - 500 000 GJ/year (138 888 889 kWh/year)
  - Modulation: 330 days / 8 000 hours
- **Non-household consumer 5**
  - 2 000 000 GJ/year (555 555 556 kWh/year)
  - Modulation: 330 days / 8 000 hours
- **Non-household consumer 6**
  - 5 000 000 GJ/year (1 388 888 889 kWh/year)
  - Modulation: 330 days / 8 000 hours

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<sup>2</sup> Modulation can be defined as the ratio between the total annual energy consumption (kWh) and the maximum daily consumption (kWh/day) of that year and it is defined in days.

## Retail gas prices

The methodology to be designed must also reflect the prices paid by these “standard costumers”, in the different MEDREG members , at the end of December 2014.

Each NRA must obtain the different components of the gas tariffs in place, at the end of December 2014. These prices will be multiplied by the different quantities defined by the “standard consumers” (gas consumption levels and / or modulation) in order to obtain the natural gas consumer bill. The relation between this amount of money and the total annual gas consumption of each “standard consumer” will correspond to the average natural gas price.

The gas tariffs to be used for the calculation of the “standard consumers” bill can be (1) the regulated tariffs, (2) the market price of the largest gas supplier or (3) a mix of tariffs offered by the main players according to their respective market shares (in most cases the local incumbent and its main competitor). In this last situation it will be necessary to calculate the average tariff according to the split between the number of customers on a standard tariff and all other tariffs in the market:

- **Incumbent Standard Price Component** = *Incumbent Standard Price x Incumbent Standard Price Weighting\**
- **Leading Competitor Price Component** = *Leading Competitor Price x Leading Competitor Price Weighting\*\**
- **Total Price** = *Incumbent Standard Price Component + Leading Competitor Price Component*

\*: Proportion (%) of all customers who remain of their by-default price.

\*\* : Proportion (%) of all customers who have the non-incumbent competitive price.

In order to have a more transparent price calculation it will be important to share the “prices variables” used and describe the most important contract conditions, for each situation.

Prices must be presented in Euros, using the prices in national currency of each country and the respective exchange rate.