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EUROPEAN COMMISSION

Brussels, 10.11.2010
SEC(2010) 1362 final

COMMISSION STAFF WORKING DOCUMENT

Accompanying the document

IMPACT ASSESSMENT

Proposal to amend Chapter 3 "Definition of the technical information necessary for network users to gain effective access to the system, the definition of all relevant points for transparency requirements and the information to be published at all relevant points and the time schedule according to which this information shall be published", that is in the Annex of Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission network

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1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

1.1. Identification

Lead DG: DG TREN

Associated DGs: SG, LS, DG ENTR

Agenda planning/WP reference: Not available

1.2. Organisation and timing:

The Impact Assessment has been prepared by DG Energy and Transport (TREN) with the contribution of an Inter-services Steering Group made up of representatives from the following Directorates General: the Secretariat General, Legal Service, DG Competition (COMP), DG Enterprises (ENTR).

Work on this Impact Assessment started in March 2009 with the analysis of the problem and of policy options as well as with a discussion on the approach for consultation of the interested parties. The Steering Group met once on 28 April 2009 and remained informed by e-mail.

<u>21 April</u>	Questions to the stakeholders on costs and benefits
<u>28 April</u>	1 st meeting of the ISSG
<u>Mid May</u>	Preliminary draft of the Impact Assessment and submission of the draft on the guidelines to the Madrid Forum participants
<u>20 May</u>	Answers from stakeholders on costs and benefits
<u>28-29 May</u>	Madrid Forum - consultation on the Comitology proposal
<u>6 July</u>	Submission of the Impact Assessment to the Impact Assessment Board
<u>9 September</u>	Meeting of the IAB
<u>September</u>	Inter Service Consultation

The Impact Assessment Board adopted its opinion on the draft on 11 September. The revised Impact Assessment Report takes full account of the Impact Assessment Board's opinion, in particular with regard to analysing the enforcement of the existing obligations regarding network transparency, with regard to adding an explanation regarding the basic regulatory arrangements in the European gas sector and the scope of the proposed measures, with regard to a more detailed explanation of the content of the different policy options, with regard to an additional analysis of benefits, and with regard to an explanation of how confidentiality concerns are taken into account.

The following chapters were changed accordingly:

In chapter 2, the problem definition has been extended, addressing the current requirements and publication of information and the compliance of TSOs with these requirements. In this section also the reason why these obligations apply to all TSOs in the EU, and the structure of the EU gas market regulation is addressed.

Three paragraphs have been added in chapter 3. One to clarify that the Impact Assessment focuses on the one hand on the information that needs to be made public, which is based on the apparent consensus among market parties following the Madrid Forum discussions, and on the other hand on the way how to make this information available so that the policy objectives are met. Another paragraph addresses the overall benefits of more transparency, in particularly focusing on the development of trading and competition it enables. A last paragraph was added to address how confidentiality was considered.

In paragraph 5.3 additional analysis of the option was included to clarify that financial incentives are a way to achieve more transparency but that they alone are not sufficient and do not cancel the need for clearly defined binding obligations to ensure harmonisation of the available information and thereby comparability of information and network integration.

In paragraph 5.4 (in particular page 23 and 24) the numbers were modified and are now based on the EU Standard Cost Model

At the time of preparing this impact assessment, Regulation EC No 715/2009, which includes the identical chapter 3 "Definition of the technical information necessary for network users to gain effective access to the system, the definition of all relevant points for transparency requirements and the information to be published at all relevant points and the time schedule according to which this information shall be published" in its annex was not yet adopted. It will repeal Regulation 1775/2005 on 3 March 2011.

1.3. Consultation and expertise

The following stakeholders were consulted:

Name	Representative of	Members
ERGEG - European Regulators' Group for Electricity and Gas	ERGEG is a body of independent national energy regulatory authorities, which was set up by the European Commission as an Advisory Group to the Commission on energy issues.	27 Members (national regulators)
EFET	European Federation of Energy Traders	More than 90 energy traders as members and associate members
EUROGAS	Companies, national federations and associations involved in the supply, trading and distribution of natural gas and related activities such as storage and liquefied natural gas	46 members from 26 countries out of which 33 natural gas companies, 12 federations of natural gas companies, and 1 international organisation

GIE – Gas Infrastructure Europe	Gas transmission companies, storage system operators and LNG terminal operators in Europe.	63 member companies from 27 countries (GTE transmission – 34 Members in 27 Countries GSE storage – 33 members in 17 countries GLE (LNG) – 16 members in 11 countries)
IFIEC	International Federation of Industrial Energy Consumers	13 member federations from 13 different EU Member States
GTE	Gas transmission operators	34 member TSOs
GEODE	Small supply and distribution companies	600 companies in 10 countries, both privately & publicly owned.
CEDEC	Small supply and distribution companies	National associations of local utilities from Belgium, France, Italy and Germany
OGP	Oil and Gas Producers	Worldwide association of upstream oil and gas companies with a dedicated EU office

The above-mentioned organisations were selected on the basis of their ability to represent the relevant parties maintaining, using or regulating the gas transmission systems. Umbrella associations can provide a European view and express the views of a whole sector/branch. As most of the companies or operators are members of national or European sector – specific associations, this targeted consultation has covered the relevant parts of the sector.

This Impact Assessment analyses the need for measures to improve the availability of information to all market participants regarding the use and the availability of the gas transmission network. Work on this issue started after the 15th Madrid Forum, where six associations jointly submitted a list of minimum transparency requirements (MinTra list) asking the Commission to make these requirements binding. The Forum concluded that:

"The Commission thanks EFET, OGP, Eurogas, Eurelectric, CEDEC and GEODE for their list of minimum transparency requirements which shows the need to enforce existing transparency requirements, on one side, and the need to further develop the Regulation in this respect, on the other side. IFIEC stated it also agrees with the list of minimum transparency requirements. These Associations, together with ERGEG, ask that these minimum requirements are made binding. The Commission will analyse the list and the need to make it binding."¹

¹ Conclusions of the 15th meeting of the Gas Regulatory Forum, Madrid, 6 & 7 November 2008, http://ec.europa.eu/energy/gas_electricity/forum_gas_madrid_en.htm

The majority of the stakeholders have expressed their views in the discussions in the Madrid Forum in November 2008 based on the MinTra list. This document has therefore also been used as a basis for the Commission analysis on needs for more transparency on gas transmission networks.

A workshop on transparency was organised by GTE on 31 March 2009 where all the stakeholders could present their views on the issue. The Commission presented the system users and the TSOs with several questions in the workshop and these questions are also available on the website of the event². The Commission gave a presentation on transparency in the Gas Coordination Group³ on 2 April 2009 followed by a discussion.

Furthermore both the TSOs and associations of network users and gas consumers were consulted by the Commission by individual questionnaire letters in April 2009. The stakeholders had slightly more than seven weeks to provide answers to the questions posed by the Commission⁴. After receiving the answers the Commission presented the initial draft staff document on a proposal to amend the transparency rules in the Annex of Regulation (EC) N° 1775/2005 at the Madrid Forum 28-29 May 2009. The Forum provided an additional consultation platform for discussion and invited the participants to comments further till the end of June 2009 before the Commissions proposal was to be finalised.

1.4. Stakeholder views

In the impact assessment of the Third Energy Package the Commission identified the need for increased transparency of the gas wholesale markets. In the consultation the stakeholders had supported a full range of data disclosure covering capacity, storage and energy flow data. At the time the Commission concluded on the basis of the views the market actors that a unified approach to improving transparency based on a set of pan-European high level standards of data disclosure for gas and electricity would be highly welcomed⁵.

Therefore, general measures on the use and availability of infrastructure, including transmission networks, were proposed in the third package. The Regulation in force contains an Annex with detailed rules on network transparency. Although stakeholders, in consultations for the preparation of the 3rd package, already claimed that these were insufficient, it was decided not to change them at the time since it concerned detailed rules in the form of implementing measures that were not to be addressed in a codecision procedure but through a comitology committee.

The transparency requirements were not included in the third package because of their detailed nature. It was agreed that they would be dealt with separately once the third package was finalised.

In the workshops and the bilateral consultation EFET, IFIEC, Geode, Eurogas, GTE, PGNiG, and ERGEG provided motivations that were very much in line with the arguments some of

² <http://www.gie.eu/events/gte/workshop/transparency/>

³ Established under Article 7 of Directive 2006/67

⁴ From the publication of the questions in the GTE transparency workshop to the deadline of returning the consultations to the Commission

⁵ Impact Assessment Accompanying the legislative package on the internal market for electricity and gas, 2007:26

them had when the MinTra⁶ list was published in conjunction to the Madrid Forum 2008. The System users are in general very much in favour of granting more information transparency to the market and all the stakeholders were supportive of publishing the information on the Internet and in both the national language and English.

The system users advocated the publication of more detailed information on transmission capacity, gas quality and flows and balancing. GTE as a representative of the TSOs was critical of the demands to publish information in uniform units and the provision of linepack⁷ information as it might be commercially harmful for the TSOs. Despite the convincing qualitative argumentation, the consultations were in general not able or willing to quantify economically the costs or the benefits of increased transparency.

Finally, the Madrid Forum in May 2009 welcomed the Commission's draft proposal of new transparency guidelines. The stakeholders agreed that the new draft is an important step forward in improving transparency of the network, thus contributing to the creation of a level playing field. The Forum stressed that further transparency rules are also important to guarantee the security of gas supply.

1.4.1. External expertise

External consultants were not used in the preparation of this Impact Assessment

2. PROBLEM DEFINITION

2.1. The Problem: Suboptimal network use and uncompetitive market.

“Timely and adequate price and other signals are essential if the investments on which long-term security of supply depends is to occur in the right place, time and is of the right type”⁸

The main problem is that market participants to the European gas market are lacking important information necessary to ensure a high level of competition. The lack of transparency leads to distorted prices and impacts negatively on the security of supply.

Current requirements regarding provision of information are defined in Regulation 715/2009⁹ (the Gas Regulation) and apply to the TSOs. The TSOs operate the high-pressure networks that are necessary to transport gas through the EU from the production to the final (industrial) consumer or to the distribution system, operated by the Distribution System Operators (DSOs) that transport the gas to the smaller consumers such as SMEs and households. TSOs and DSOs operate a monopoly activity, as it is not efficient for competing suppliers to build their own network to the consumers. Therefore their activity is regulated, and they have to give access to other parties based on access terms and conditions (including tariffs) that have to be approved by the national regulatory authority. In case the TSOs or DSOs are owned by supply undertakings it must be ensured that they do not discriminate between different customers for

⁶ See Annex 1.

⁷ Linepack is the term for gas storage within the pipeline. Enabling shippers to buy linepack will allow them to manage supply and demand flow variations across the shorter balancing periods.

⁸ International Energy Agency Natural Gas Market Review 2009: 115, IEA 2009

⁹ Regulation EC No 1775/2005 will be repealed by Regulation 715/2009, which contains the identical annex as 1775/2005, from 3 March 2011

the transport services. Therefore Directive 2003/55/EC (the Gas Directive) requires that TSOs and DSOs must be legally and functionally separated from the supply undertaking.

Most of the gas consumed in the EU (more than 80%) crosses one border, and most of the EU Member States are net importers of gas. At the moment only the Netherlands and Denmark export gas, and the EU imports more than half of its gas consumption from outside the EU. As the production in the EU is declining and demand for gas is expected to grow this is expected to grow up to 80% in the coming years. Large volumes of gas travel long distances before they reach the consumer, passing through different countries and different transmission systems operated by different TSOs. In some countries multiple TSOs exist due to historic development of the gas sector, but the intersections between these TSOs within a Member State are equally important in transporting gas from producer to consumer as the intersections at the border. Therefore the Gas Regulation applies to all transmission systems and it aims to harmonise access to all the entry and exit points into different systems, in order to create an integrated European gas network in which gas can freely move.

In order to ensure that suppliers know the possibilities to transport gas and the availability of capacity, and to ensure that TSOs do not discriminate between their affiliated supplier and other parties, the Gas Regulation defines the obligations on TSOs with respect to transparency, in Article 6 of that Regulation and in chapter 3 of the Annex. Currently TSOs are required to publish information regarding the functioning of the system and the services they offer, and they are required to publish information on the use of the system, for example by publishing information on the monthly capacity use, the available capacity for daily bookings that is updated daily, the available capacity for other products for the coming 18 months, and the available yearly capacity for the next ten years.

Compliance with these requirements differs widely in the EU. In the Northwestern part of the EU it is recognised that these requirements are insufficient for a competitive gas market to function and therefore many TSOs publish more detailed information than required by the Gas Regulation. Some countries have national legislation that requires more information to be published, whereas other TSOs publish more information on a voluntary basis. In particular, the national regulatory authorities (NRAs) of the northwestern gas regional initiative have the past years put many efforts in stimulating TSOs to improve the provision of information.

At the same time, the Commission has checked the compliance of all the Member States with some of the requirements of the Gas Regulation, in particular those related to transparency, and in June 2009 the Commission sent letters of formal notice to all Member States that consume gas and do not have derogation from the application of the Gas Regulation. It has found that many TSOs do not fully comply, in particular TSOs in the new Member States publish very little or no information as required, but also the TSOs in the northwestern region do not fully comply with the requirements of the Regulation, for example at some specific interconnection points.

The following information is not available in an adequate form:

- (1) Gas traders and shippers do not know the available capacities in detail and in a timely manner so they cannot optimize the flows and their supply.
- (2) The risk of interruptions is not known, as there is very little historical data available. This gives a competitive advantage to established actors and deters competition.

- (3) There is no equal access to all the information¹⁰ that would be required for the systems users to effectively make their allocations decisions. The network owners and some suppliers have priority access to data, whereas shippers need to rely on assumptions.

More in detail, the problem can be defined as follows:

- The information that is required for the moment by the existing Regulation 715/2009 is far too seldom published on websites accessible to the public. TSOs do not provide this information in consistent units and often only in the national language.
- The commercial capacity available and the amount of booked capacity are not provided in real time, but with a delay that reduces the value of the information. Such information would be needed in real-time in order to ensure that the use of capacity is maximised.
- Maintenance, outages and the steps taken in the event of a supply emergency have an impact on availability of capacity and therefore market participants should be informed as soon as such measures occur and/or are planned. In order to manage costs of such interruptions the users need to know immediately when flows are restored.
- Market participants do not have access to gas quality parameters applying to each network and this makes it difficult to take effective commercial and operational decisions. Neither do they know of procedures and costs for dealing with gas that does not meet the specified parameters. The daily actual measured values would allow market participants to assess actual flows against the specified parameters and validate charges that have been incurred for any conversion/treatment.
- Flow and interruption information is not provided currently, but would be crucial for understanding the system operation and also for putting efficient valuation on capacity products (e.g. interruptible) offered by TSOs.
- Historic information on the use and availability of capacity is not available in sufficient detail. Historic information would allow market participants to build up historic view of flows/interruptions to better understand system performance. This makes it very hard for the market participants to analyse and understand long term capacity constraints and allow for more effective and efficient commercial decisions e.g. through any open seasons.
- Linepack¹¹ information is currently offered only by a few TSOs. It would highlight how the system is being operated, give indications how TSOs deal with imbalances and where constraints may exist and investment may be needed.
- Secondary capacity trading is not organised in the most transparent manner possible and therefore bears a risk of discrimination and market distortion. Products and conditions vary widely. Scale, frequency, and numbers on secondary trades cannot be assessed successfully by shippers or national regulators, undermining the effectiveness of secondary capacity

¹⁰ See Annex 1. MinTra list

¹¹ Linepack is related to the flexibility that the transmission system itself can offer due to variation in pressure. In the Gas Directive it is defined as follows: "the storage of gas by compression in gas transmission and distribution systems, but excluding facilities reserved for transmission system operators carrying out their functions;" (Article 2.15)

markets as a congestion management tool. The opaqueness on secondary markets blurs the view on the effectiveness of the use-it-or-lose-it principle.

2.2. The underlying drivers of the problem

A major pillar in liberalising the EU energy markets is the equal access to and use of networks (gas and electricity transmission system). As far as gas is concerned, the current Gas Directive provides for specific rules on the designation of system operators, their tasks, unbundling of TSOs, confidentiality of information, access to the networks and the regulatory powers of NRAs. Whereas the Gas Regulation contains more detailed provisions on the tariffs for network access, capacity allocation, transparency requirements, balancing rules and trading of capacity rights.

An important aspect of these rules deal with transparency: equal access to the grid can only be effective if network users have enough relevant information on available capacities, bookings etc. The rules for TSOs to provide information are clearly not rigid enough. There is also substantial variation between different market areas concerning transparency and this hinders the creation of a true European energy market.

2.2.1. Long term historic contracts

Long term contracts as such are not by definition a problem, but there is substantial evidence that they cause contractual congestion and limit access to the networks even when physical congestion is missing. This is to say that when the pipelines are booked for years ahead with the gas of the incumbents, there is no room for the smaller actors to ship or plan future business. Providing the market with information on actual flows and frequently updated info on use and availability of capacity better allows for the system users to see whether the system is really physically or just contractually congested.

2.2.2. Tariffication and Revenues

- No incentives for TSOs to give information

The TSOs are a regulated business and the asset based reward structure sets the eligible tariffs for network use and defines the rate of return for invested capital, but rarely takes into account or rewards the TSOs aspiration to provide the market with tools or measures that facilitate the functioning of the market.

- Cost of increased transparency not included in the tariffs

In short the TSO should be compensated when it provides the system users with, sufficient, transparent information in real time. The market actors have several times indicated that they willing to pay for the increased transparency as the cost is likely to be much lower than the benefits.

2.2.3. Discriminatory Access

A majority of the problems on the European energy market are linked to the existence of vertically integrated companies that control essential facilities like gas transport networks or main gas storage facilities and enjoy significant market power in the wholesale and sometimes retail markets. In practice, EU companies are often not able to sell gas across the EU on equal terms as incumbent suppliers. In particular, non-discriminatory network access and an equally

effective level of regulatory supervision in each Member State is not yet reality.

A lack of transparency on available transmission capacity and load profiles to discriminatory terms and conditions for third party access is a key concern in establishing access to markets.

Despite the problems, there was some progress made in 2008 on the unbundling of network operators. At transmission level, some Member States have gone beyond the present requirements of legal and functional unbundling. The third package introduced the ISO and ITO models as an alternative to the ownership unbundling and it remains to be seen which option the Member States apply.

2.3. The affected parties

The main categories of actors affected are shippers, consumers, and the TSOs running the system.

System users:

The economic operators who sell and trade gas in the network take the major responsibility for security of supply. They need transparency and visibility for their business operations.

Consumers:

Consumers – businesses or households– are inevitably concerned by a potential vulnerability to supply shocks, inadequate investment and lack of competition. The consumers currently pays for the lack of transparency through higher prices due to the uncompetitive market and the sub-optimal network use.

Transmission system operators:

The TSOs are affected in two dimensions. The increased transparency requirements can incur extra costs to the TSOs but simultaneously granting more information to the shippers increases the shippers possibilities to stay in balance and to avoid supply disturbances or costly TSO actions to ensure the system's balance when shippers would be able to manage the imbalance more effectively.

2.4. The economic, social and environmental effects.

The effects of the problem can be dealt in different dimensions. The problems in the economic dimension are the most obvious and easiest to perceive.

The effects in the social dimension are more indirect, but actualise in the form of a possible high societal cost in the case of a supply interruption. Environmental effects are also indirect but could be seen from two different viewpoints: Either the high gas price makes it impossible to use gas a complementing source with renewable energies like wind, and therefore inhibits the further introduction of renewables. At the same time very low gas prices could be also seen as disincentive to further use of CO2 free sources of energy.

Table 1. Problem dimensions

	Economic	Social	Environmental
Expression of the problem	Suboptimal network use, separated markets and	Less responsiveness in case of crisis > Security	higher gas price > use of other fuels with less good

	lack of network access.	of supply a risk > high societal costs	environmental properties
What if no change?	Problems prevail	Problems prevail	Problems prevail
Who is affected?	TSO, suppliers, shippers	No employment effect	all

2.5. How should the problem evolve, all things being equal?

The Third Energy Package¹² will probably enter into force by 3 March 2011. Once the ownership unbundling or the ISO and ITO models are implemented in the Member States, the situation will ameliorate concerning the vertically integrated companies. However, concerning transparency requirements of the gas networks, there are no planned actions on either the EU or the Member States side. It is possible that the Gas Regional Initiatives including transparency work taking place in certain regions¹³ will provide with some results, but significant changes are very unlikely.

2.6. Legal basis

Uniform transparency requirements are a necessity for the creation of a truly functioning energy market in Europe. Therefore the Regulation 1775/2005 was adopted by the Member States already as a follow-up of the second gas Directive. The transparency requirements were also not included in Regulation EC N° 715/2009, which repeals Regulation EC N° 1775/2005 from 3 March 2011, because of their detailed nature.

If the Commission is to propose amendments to the current legislation, the Treaty base would be Article 194 of the Treaty on the Functioning of the European Union (TFEU).

3. OBJECTIVES

3.1. What are the general policy objectives?

“The Russia-Ukraine gas dispute highlighted the importance of and adequate overview on gas flows.”¹⁴

Competitiveness, Security of Supply and Sustainable Development are defined as the main policy objectives of the European Union Energy policy. The internal market contributes strongly to the objectives of competitiveness and security of supply. Competitiveness as well as security of supply are enhanced with equal access to information and better use of the networks. Sustainable development and the use of renewable energies requires gas as back up fuel and therefore gas also needs to be competitive in prices.

Table 2. Overall and specific objectives

Overall objective	Specific objectives	Operational objectives
Competitiveness	Equal and full information on network	TSOs provide information on

¹² http://ec.europa.eu/energy/gas_electricity/third_legislative_package_en.htm

¹³ See more on GRIs under the section 4. policy options and 5. Analysis

¹⁴ IEA Natural Gas Market Review 2009: 118

	use	historical flows, gas quality, shippers own flows, penalties etc.
	Optimal use of flows and capacity allocation	
	Easier for new entrants to enter a market	Information available for all the users without restrictions
Security of Supply and reliability	More buffer capacity	Functioning secondary markets
	Diversification of suppliers	Offering more capacity to the market
	Maximum responsiveness in crisis	Real-time information available both for shippers and NRA's
Sustainable development	Competitive gas price enables investments in renewable energies	

Furthermore the prospect of a large EU market for gas with common rules is a strong incentive for new investment. New investment is clearly responding to the price signals in wholesale and balancing markets where these are allowed to function properly. Also investments in sustainable development call for transparency and trust in the functioning of the market.

3.2. What are the more specific/operational objectives?

The more specific objectives include the several aspects identified by the system users as problems. Increased transparency should lead to equal and full information on network use for all the market participants. Once the information is in place and available, in the medium long term there should be increased effectiveness in the use of the network and capacity allocation. Furthermore it should be easier for new entrants to enter the market and the diversification of shippers and sources is expected to lead to more buffer capacity. Diversification and real time information support maximum responsiveness in crisis situations. Finally the competitive gas prices also enable investments in renewable energies and thereby support sustainable development.

Both the general and more specific objectives are consistent and support the objectives of other EU policies like the Lisbon Strategy and Sustainable Development strategies.

3.3. Content and Mode of achieving the objectives

Following the discussions in the Madrid Forum and the list of minimum transparency requirements as published by the joint associations, it is clear that there is a general consensus among market players that more transparency on the networks is required. The MinTra list is taken as the point of departure of this Impact Assessment and of the work of the Commission, and therefore the Impact Assessment focuses firstly on the type of information that is required to solve the issues as described under 2.1, and secondly on how to ensure that this information is published in a way that guarantees user-friendliness, efficiency and network integration.

Therefore, the policy options as assessed in chapter 4 analyse both the information that is needed as well as the way how to make it available.

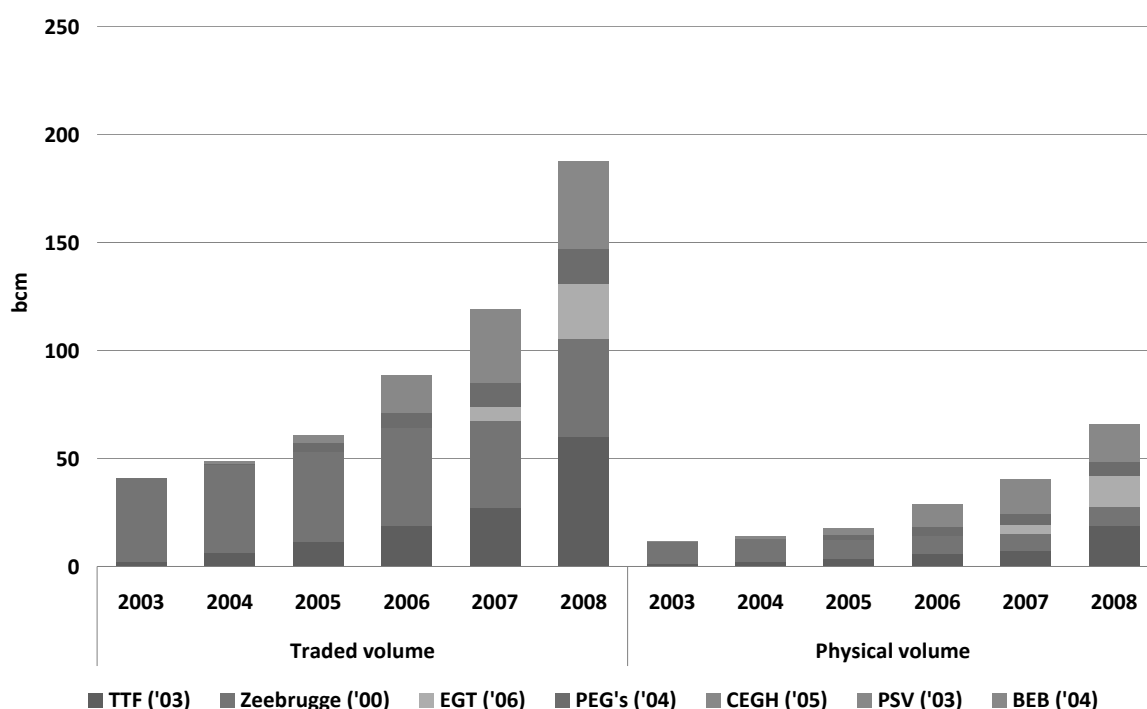
3.4. Benefits of improved transparency

As stated above, some TSOs provide more information than what is required under the Regulation. These TSOs operate in markets where most trading is happening and that are the most competitive.

Of course those markets are also the ones with the most active NRAs and/or progressive policies of ministries to open the market and stimulate competition. Therefore it is not possible to attribute all benefits of improved liquidity to improved transparency, but it is clear that improved transparency is a necessity for a better functioning market and more liquidity in hubs.

This is shown by the development of hubs in the EU. The National Balancing Point in the UK is the biggest hub, and National Grid, the TSO in the UK, is also the TSO that provides most information to its users regarding the operation, availability and use of the network. Recently hubs in the rest of Europe have also been developing fast, in particular in those areas where TSOs are improving the availability of information. The graph below shows the development of the hubs except for the NBP, comparing the traded volumes to the physical volumes that are transported by the TSOs over these hubs. It is clear that TTF is the fastest developing hub in the EU, and it is based in the Netherlands. The TSO (Gas Transport Services) in the Netherlands also provides detailed and swiftly updated information on network use. Moreover, most of the other hubs that are developing fast are those in the Northwest regions (EGT, BEB). TTF more than doubled its traded volume between 2007 and 2008 (120% growth) and the German hubs (EGT and BEB) also more than doubled, although they were established later and volumes are much smaller. The hubs in areas where transparency is not such a key issue of action, such as the hubs in Italy (PSV) and Austria (CEGH) show much smaller growth.

Figure 1 Development of hubs in the EU (excluding NBP) ¹⁵



3.5. Confidentiality

Any requirement to publish information has to address the balance between the information needed for an efficient market and the protection of legitimate confidential interests. In the current Gas Regulation, wherever there are less than three network users, NRAs can decide to grant the TSO an exemption from the obligation to publish information regarding the use of that capacity (Article 6.5 of the Gas Regulation). Many NRAs have used this opportunity, but at the detriment of equal access to information and protection of incumbents that dominate markets rather than to protect legitimate confidentiality concerns. This analysis was confirmed with the adoption of the new Gas Regulation 715/2009 that will enter into force 3 March 2009 and where such provision no longer exists.

Confidentiality should be used in a very limited way and not serve to foreclose markets or maintain uneven access to information. The improved transparency requirements of this impact assessment follow this reasoning as more information is required for all market parties that want to compete in the European gas market.

There is however a legitimate concern regarding confidential information, which is not related to competition in gas supply but competition between industrial users of gas, such as power stations or fertiliser producers. Whenever transparency obligations would reveal information on the business processes of individual gas consumers, a safeguard should be put in place to ensure that such information is protected from publication. This is addressed in the proposal where exit points out of the transmission system to single users are treated differently from other entry or exit points.

¹⁵ Source IEA: Natural Gas Market Review 2009

4. POLICY OPTIONS

4.1. Option 1 - No EU-action

The Regulation 715/2009 is left unaltered and the reporting requirements of TSOs to the NRAs stay as they are for the moment. Neither Gas Regional Initiatives nor any kind of financial incentives are encouraged and implemented. The voluntary schemes continue as they are for the moment.

4.2. Option 2 - Voluntary agreement by TSOs, system users and NRAs through regional initiatives

The European Regulators Group for Electricity and Gas (ERGEG) launched its Gas Regional Initiative (GRI) spring 2006. The Regional Initiatives framework created three gas regions in Europe. North-West¹⁶; South South-East¹⁷; and South¹⁸ regions as an interim step to creating a single-EU gas market.

According to the different levels of market development and ambition level the regions have set measures in an order of priority. Transparency is the second priority in the NW region and the third in the South region and not included at all in the SE region's priorities. In this options the Commission will, with the aim of encouraging the voluntary implementation of transparency projects, organise workshops and put in place advisory committees and support the exchange of best practices between TSOs.

4.3. Option 3 - Voluntary financial incentives for the TSOs to increase transparency

In the UK the system users, the NRA (Ofgem) and TSO (National Grid) have agreed upon an incentive scheme that rewards the TSO for providing with transparent and accurate information. The background to the initiation of the incentives system is winter 2005/2006. During that period the large gas customers experienced problems with National Grids inadequate demand forecasting and website performance. The poor performance resulted in significant costs for large customers.

In this option the Commission encourages and advises the systems users and NRAs to implement incentive systems for the TSO according to the UK model in order to increase information transparency and ensure the accuracy and timely publication of data. Creating voluntary incentives where the TSOs reward structure can be adjusted with the consent and according to the needs of the systems users has the potential to provide a satisfactory outcome for all the parties.

4.4. Option 4 - Amending chapter 3 of the transparency annex of Regulation 715/2009

The Commission will adopt more binding legal guidelines the chapter 3 of the transparency annex of Regulation 715/2009. Following elements should be added in the proposal:

¹⁶ Netherlands, Belgium, France, Ireland, Great Britain, Germany, Denmark, Sweden, Northern Ireland, Norway (observer)

¹⁷ Austria, Bulgaria, Czech Republic, Greece, Hungary, Italy, Poland, Romania, Slovakia, Slovenia

¹⁸ Spain, Portugal, France

- improved format of publication
- sufficient historical information
- more detailed information on gas quality
- timely publication i.e. real time information
- more frequent publication of information
- detailed information on liabilities and interruptions
- rules on publication of information regarding capacity trading on the secondary market

The new rules should be introduced to the transmission systems early in the year 2010.

4.5. Option 5 - Stricter national reporting requirements from users and TSOs to the NRAs

Acquiring data from all the systems users and compiling that to an aggregate material that would then be published by an independent agent (e.g. national regulatory authority) could lead to a similar level of transparency as the previously assessed information publication requirements for the TSOs.

In this option the Commission encourages the NRAs to require the TSOs to report more specific information in line with the provisions presented in option 4. and the details of the deals between the TSOs and TSOs and shippers. Furthermore the NRAs require the systems users to report the amounts of gas shipped in different networks¹⁹. This information is in turn analysed by the NRAs and published to the market actors in the scope it is feasible.

5. ANALYSIS OF IMPACTS

In order to analyse the options more in depth it can other systems have been analysed, and in particular the rules on network transparency in the USA are relevant. Annex 5 - Network Transparency in USA provides a short description of the situation on the North-American gas market. Hereunder the different options are analysed with their pros and cons.

5.1. Option 1 - No EU-action

In the first option the systems users continue not to be on a level playing field concerning information transparency. The transmission systems are not utilized up to their maximal capacity and the security of supply in crisis situations continues to be threatened by the lack of information on available capacity and information on network access conditions possibilities. The economic effect is negative on both the market and the problems with security of supply can have detrimental social effects.

As such the option does not have a direct impact on SMEs nor any administrative costs, but at whole new markets actors continue to be discouraged to enter the market and enhance

¹⁹ See Annex 5. Network Transparency in USA

competition. In the case of no action there are no costs for the TSOs, but the cost of the opaqueness of the transmission system continues to be reflected in the prices for the end users. Option 1 No Action requires no timetable and is a simple maintenance of the status quo.

5.2. Option 2 - Voluntary agreement by TSOs, system users and NRAs through regional initiatives

After an extensive consultation in the NW region regarding the need for more transparency, in 2007 the sixteen TSOs of the region presented a project plan for the Transmission Transparency Project that committed them in publishing information on capacity availability and gas flows at cross-border interconnection points in the North West Region. The information that the TSOs agreed to publish is very much in line with the provisions of the minimum transparency requirements list.

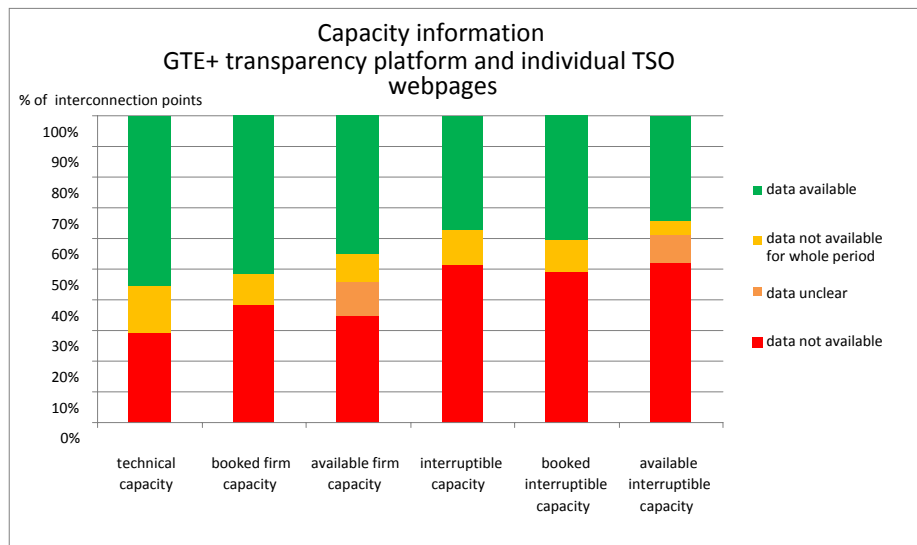
Table 3. Gas Regional Initiatives priorities²⁰

Priority	North-West	South-East	South
Priority I	Balancing Quality	Best-practice standardised bulletin board.	Interconnection capacity
Priority II	Transparency	Summary of planned investments in the region (incl. storage).	Interoperability
Priority III	Interconnections primary capacity markets and secondary capacity markets	Removing remaining obstacles to implementation of interconnection point agreements (IPA)/ operational balancing agreements (OBA).	Transparency
Priority IV	Hubs	Best practice provision of one-stop-shop (OSS) service.	Hubs
Priority V	Investment	Regional entry exit tariff system (REETS).	
Priority VI	Regulatory coordination		

ERGEG has carried out an assessment of the availability of capacity information on the (voluntary) GTE+ Transparency Platform. The information is available for only approximately 30 percent of the European interconnection points. ERGEG controlled whether this information was available on the individual TSO websites as of March 2009, see figure 1. Evaluating the results for the 3 regions does not give an impressive picture that substantial progress would have been taking place in the regions on voluntarily basis. Furthermore it has to be noted that the transparency requirements in both monitoring exercises are legally binding already at the moment as a part of the transparency annex to Regulation 715/2009.

²⁰ http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/GRI

Figure 2 Available capacity information 2009²¹



In the NW region progress has been made in releasing new information for all data types. All TSOs have published daily capacity availability information at cross-border points, but there are two data types, daily flows and interruptions and daily aggregate day-ahead nominations where the implementation has fallen behind schedule. A presentation on the progress achieved was given in the Madrid Forum in May 2009, but it should be noted that the voluntary approach has not resulted in 100% compliance with the transparency requirements identified in phase 1 of the project.²²

The success of phase 2 of the project is also questionable since the vast majority of system operators have so far rejected to commit themselves to publish the transparency requirements. So even though the MinTra list is partially being implemented by the TSOs through the GRI, the progress of the transparency project at its second implementation stage is mixed. It became clear to all the participants at the NW region's workshop on transparency held on 31 March 2009 in Brussels that the actors have difficulties of finding common ground on how to proceed with the work.

Extending the GRI NW action in the EU

The voluntary regional progress has a positive impact on security of supply and on markets. The economic effect on the TSOs can be either neutral or negative depending on whether the new transparency requirements are taken into account in their reward structure. Despite the fact that the NW region has made progress in the first part of the transparency project, the adaptation of the second part is halted by differences of opinion. It seems that immediately when the transparency work enters a more controversial ground, it becomes significantly more difficult to proceed. Therefore it is questionable whether the transparency work be feasible through voluntary progress in the regions and especially what would be the timetable for achieving the minimum transparency requirements in such an option.

²¹ Source ERGEG

²² See more detailed discussion on GRI NW Region in IEA Gas Market Review: 116-118

5.3. Option 3 - Voluntary financial incentives for the TSOs to increase transparency

The UK model of providing the TSO with incentives is based on two separate criteria: An incentive to ensure good website performance and incentive to produce accurate demand forecasts.

Concerning the website performance, the availability target of the website was defined as 99.3 percent of the time and that key data must be published within ten minutes of expected time (90.5 percent target). The key data in question includes linepack data, physical flow data, nominated flow data, forecast demand. The incentives vary from an annual maximum bonus of 100 000 GBP to a fine of 100 000 GBP that the TSO has to pay in case of non compliance with the time limits. For the period 2008/2009 the incentive made up to 46000 GBP extra income for the TSO. This incentive offered gives an indication of the value of increased transparency and indicates that the system users are willing to pay for accurate information.

Similar systems of incentivising transparency and accurate information could be implemented also in other parts of Europe. Security of supply and market functioning are best dealt with through market based solutions and from this point of view the initiatives are an apt solution. The effect on SMEs is indirect as in all the other options and administrative cost are born by the systems users. However problems arise from the difference between the UK model and the continental models in the gas markets. The UK approach could be described as a competitive market with less vertically integrated companies, and due to the Anglo-Saxon tradition more prone to using incentive based tools, whereas the continental regulatory tradition relies more on regulation than on financial incentives. The difference of approach therefore challenges the option of voluntary financial initiatives both from the feasibility/probability and timetable point of view. Also the TSOs more often are connected to the vertically integrated companies and therefore financial incentives may be less effective.

Even if financial incentives were agreed upon to provide more transparency in several Member States, in order to guarantee a level playing across Europe, there would be a need to introduce European wide regulation on the level of minimum transparency requirements to ensure consistency in published data across the EU.

However, it is not excluded that financial incentives can be used as an addition to the binding obligations that apply to all TSOs. If harmonisation of publication of information is ensured and if the comparability of data from different TSOs is ensured, it can be left to NRAs how to ensure that TSOs comply with these obligations. In particular when data requirements are extensive and based on real-time information TSOs (and regulators) need to manage the errors and the accuracy of the data. A system of financial incentives that trigger TSOs to be as accurate as possible could be installed by the NRA. The provision of information can therefore be improved by financial incentives, and the possibility to apply such measures should not be excluded by the proposed measures, but as is argued above, on their own such incentives are not enough.

5.4. Option 4 - Amending chapter 3 of the transparency annex of Regulation 715/2009

The proposed changes in the Regulation can be grouped into improved format of publication; sufficient historical information; more detailed information on gas quality; timely publication i.e. real time information; enhanced granularity of information, i.e. smaller publication

periods; detailed information on liabilities and interruptions and rules on establishing a secondary market.

After analysing the stakeholder feedback, it is evident that there is a clear need for the information to be published in both the national language(s) and English and in consistent units. There are, however, some differences between the Commission analysis and stakeholders opinions. For example where the MinTra list refers to daily updates, the Commission sees it more apt to publish the information in real-time and refer to the smallest balancing and settlement period. GTE was of the opinion that receiving information on gas quality is not necessary in many cases, but even if it is not an access condition, the Commission sees that it is important to the large industrial clients and does not seem to harm the TSO in any way. Also keeping track of historical information builds up the institutional memory of the market as a whole and provides a more level playing field for the smaller traders.

Concerning balancing it is evident that both balancing costs and actions and the balancing status of the network users should be published as soon as possible and reflect the level of information that the TSO is holding itself. Furthermore the market actors need to know the interconnection agreements of two or more TSOs, as well as more detailed information on liabilities and interruptions.

After the Commission analysed the comments from GTE on linepack, the balanced option to go about is that where linepack is offered for TPA or where TSOs engage in traded markets, TSOs shall publish daily aggregate forecasts of the available gas and subsequent flexibility in the system, for the end of each relevant gas day and, if applicable, the linepack available to system users. There is also a clear need for information on aggregated amounts of capacities sold per interconnection point, per type of capacity, sale and the size and duration of capacity usage rights. Secondary market trading is a question of its own and has been analysed more extensively in the annex on Secondary markets.

A number of new entrants would welcome the creation of a single transparent and integrated web platform providing information on available capacity for all transmission pipelines. The results of the Sector Inquiry published by the Commission on 10 January 2007 suggest that the benefits of secondary market trading remain merely limited to incumbents and the potential to foreclose markets from the primary to the secondary market. The lack of transparency on secondary markets adds up to significant barrier to competition and therefore it should be defined which information should be made public in detail E.g. capacity offered, period, price offered/contracted at, seller, commercial terms.

For these reasons, the Commission wishes to include an obligation for transmission system operators to publish on a daily basis the aggregated amounts of capacities sold per interconnection point and per type of capacity²³, e.g. transfer or assignment the number of trades/transfers, the size and duration of capacity usage rights which have been transferred and other conditions known to the transmission system operator.

Furthermore, the Commission proposes to require transmission system operators to publish harmonised conditions under which capacity transactions (e.g. transfers and assignments) will be accepted by them. These conditions must at least include a description of standardised

²³ i.e. entry, exit, firm, interruptible, including duration and type of sale

products which can be sold on the secondary market; lead time and execution time for the implementation/acceptation/registration of secondary trade and the notification by the seller about name of seller and buyer and capacity specifications. Also the Commission believes it is necessary that the transmission system operators must keep documentation of all relevant information for at least 36 months and make them available to the regulatory authority upon request.

The economic effect for the users and the market should be positive as amending the Regulation provides with the most certainty to attain a concrete increase in transparency in the short run. Also security of supply will be strengthened by the new provisions. Amending the regulation is feasible through comitology in the scope of one year after the Commission proposal is adopted internally.

The administrative burden and the costs of the publication can be quantified with the help of the EU Standard Cost Model 'SCM' -model. The main aim of the model is to assess the net cost of information obligations imposed by EU legislation (net costs = costs introduced by a proposal if adopted, minus the costs it would eliminate at EU and/or national level). In principle it is sufficient to measure the administrative burden only for the preferred option, but in the case of transparency reporting requirements are at the core of the proposal, the administrative burden will be assessed for both the policy options 4. Amending chapter 3 of the transparency annex of Regulation 715/2009 and the 5. Stricter national reporting requirements from users and TSOs to the NRAs.

The annual costs for increased transparency can be calculated using the number of GTE transmission system members²⁴, an assessment of the hours and an average of a professional's salary in the 10 most expensive EU Member States²⁵ and the IT infrastructure needed for the new information requirements. In the calculations it has been assessed that a full time work input between one to four weeks of two professionals is required for creating an improved format of publication and compiling the historical information. The European wide costs therefore range from 250 000 to one million euros. Here the calculations is made according to two weeks full time work, the cost being around 500 000 euros.²⁶

Providing detailed information on gas quality and liabilities and interruptions is assessed to take two and half hours every week each. The cost of this is therefore around 400 000 euros. To produce more frequent publications is assessed to take an hours work every day during the year and lead to a cost of approximately 280 000 euros.

In the UK the National Grid publishes real time flow data since 2006. This information is published for all system entry points and is updated every twelve minutes for two minute periods, i.e. closer to real time is hard to get. The publication of this information has cost approximately 1,4 million GBP²⁷. Even though it is important to recognise that costs would be very different for each TSO in Europe, a rough estimation of the costs could be calculated just on the basis of consumption. The natural gas consumption in the UK was around 82 tonnes of

²⁴ 34 TSOs

²⁵ According to the EU SCM model the average of a professionals salary in Denmark, Germany, Ireland, France, Italy, Luxemburg, Austria, Netherlands, UK and Sweden is 44,66 euros an hour.

²⁶ See ANNEX 7. Administrative burden for TSOs

²⁷ Email correspondence with Mr. Olaf Islei from Ofgem on National Grid cost estimates 10 July 2007, for more on costs see Annex 3. Results from the bilateral consultation

oil equivalent in 2007 and in the EU 27 a total of 432 tonnes²⁸. If the costs were to follow the UK pattern, according to the amounts consumed the aggregated initial cost for real time information in the EU27 could be up to 7,4 million euros. Therefore it is assessed that the timely publication requires a one time investment of 200 000 euros per TSO in the IT infrastructure and a 60 minute daily monitoring responsibility. In this way the annual aggregated cost of real time information adds up to approx. 7,4 million euros.²⁹

Furthermore the creation of a platform for a functioning secondary market system is assessed to require a two week full time work and an IT cost of 70 000 euros per TSO. Monitoring the running of the automatic secondary market platform is assessed to take daily 30 minutes from a qualified professional and the overall cost of secondary market provisions is therefore approximately 2,8 million. The total cost of the new transparency requirements for the first year is euros per TSO is approximately 330 000 euros and 11,4 million euros European wide. When the initial IT, translation and planning costs are extracted from the table, the future annual running cost should be around 60000-70000 euros per TSO and around 2,2 million on the European level.³⁰

As can be seen in Annex 5, the USA have at the moment rules in place that require publication of detailed information on use of transmission networks, including requirements as proposed here.

5.5. Option 5 - Stricter national reporting requirements from users and TSOs to the NRAs

Introducing reporting requirements to the national regulators would require excessive efforts from the market participants. The costs of compliance with this kind of additional transparency legislation are hard to assess, as they depend very much on the detailed requirements, but it would add costs to those of the TSO as described above because the NRA would have to aggregate, check and publish such information. The additional regulatory costs of more transparency could result from the increased need for resources (human, financial) to monitor compliance of transparency requirements and of the excessive analysis from the NRAs side. Additional costs for the regulator could also be incurred due to the publication (e.g. on internet) of the market information. Such rules exist in the USA but the type of data that has to be reported, as well as the level of detail concerns gas trading, not information on networks. Reporting to NRAs instead of to the public regarding trading is justified since this is commercially sensitive information.

The economic effect to the NRAs and the Member State finances for the policy option of increased reporting requirements to the NRAs is clearly negative due to the increased needs for analysis. The cost of work per hour is assessed to be the same as before and the amount of system users if derived from Eurogas members and affiliates³¹ and NRAs equals the number of ERGEG members. Providing information on the transactions is calculated to take slightly less than one working day for one professional per trader/shipper each month. Here the administrative costs add up to 1, 4 million euros annually.³²

²⁸ EU 27 Gross inland energy consumption of Natural Gas in 2007/1000 tonnes of oil equivalent: http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/main_tables

²⁹ ibid

³⁰ ibid

³¹ http://www.eurogas.org/organisation_members.htm (around 90 for the time being)

³² See ANNEX 8. Administrative burden on systems users

In the calculations it has been assessed that a two week full time work input of a professional is required monthly for issuing the information in an improved format and compiling the historical information. On top of this a 50 000 euro investment per NRA is needed in order for the regulator in general to initiate publishing of applicable gas information on its website. The European level cost of this would be around 4 million euros. Gathering detailed information on gas quality is estimated to cost in the region of 150 000 euros. Enhanced granularity and timely publication are assessed to take daily an hour each and combined with the cost of new IT infrastructure of 70 000 could cost around 2,8 million. Analyzing liabilities and interruptions takes one working day weekly and costs 450 000 euros in total. Finally the secondary market design with IT investments adds up to 2,9 million.³³

In total the costs for introducing these reporting requirements are estimated at over 10 million annually for the NRAs and 1, 4 million for the system users, i.e. more than in case of policy option 4. On top of this amount also the increased costs of the TSOs need to be taken into account. If half of the costs presented in option 4 would be counted in also in option 5, the overall costs, especially in the long run, rise significantly above of the administrative cost burden of option 4.³⁴

The SCM model only provides with a crude assessment of the exact costs as the consultation of the TSOs didn't provide with either direct costs or working hours needed for the implementation. Furthermore it is clear that it would be impossible to produce an exact quantification of all the benefits to the different market actors. For example, quantifying the downward effect on the end user prices per unit would likely give unreliable results and requires such extensive economic modelling that would be out of the scope of this study.

Even though security of supply and market functioning can be clearly enhanced by stricter reporting and the process for NRAs to adopt new requirements is as such a feasible exercise on the national level, this options seems doesn't seem probable, due to the increased cost for the NRAs and systems users and the risk of creating differences between different countries. The costs are significantly higher and the fixed costs also stay on a higher level due to the reporting costs of the system users and cost of analysis to the regulators.

In conclusion, the inefficiencies by making the national regulator responsible for data publication instead of the party who is closest to the information (i.e. the TSO) and who is also the service provider to those who need the information, adds significant costs to this option without any clear benefits. Moreover, the NRA will not be able to add additional services to the market on transparency whenever it feels that there is demand for such service, since it does not possess the information itself. Also, the costs of publication by the NRA are socialised since they are taken from the state budget, whereas such costs would be put on gas shippers and eventually gas consumers, i.e. those who benefit from the publication of the information, if these costs would be made by TSOs and included in the network tariffs.

6. COMPARING THE OPTIONS

Table 5 below summarises the benefits and drawbacks of different options. The option 1, 'no EU Action' is obviously feasible in the short term and has no administrative cost, but has negative effects for the market. Voluntary regional initiatives have positive effects for the

³³ See ANNEX 9. Administrative burden on NRAs

³⁴ *ibid*

market, the market actors and security of supply, but are not likely to advance rapidly nor produce a guarantee of compliance. Financial incentives is an interesting option for the market to autonomously arrange the needed information provisions and, furthermore, produces no administrative costs, but the feasibility of a completely new structure of incentives remains a large question. Also, even in the case of establishing incentives for transparency, some level of European wide regulation would be needed to guarantee a certain minimum level of harmonisation.

Option 4, amending the regulation, provides with the benefits in most categories but has a European wide administrative cost burden of estimated €1,4million annually. This however is a relatively low price in comparison to the potential benefits.

Finally, option 5 of stricter reporting to the regulators provides also with most of the benefits and is feasible on relatively short term. However, the reporting requirements cause considerable costs on both the TSO and the market actors and combined with the analysis of the NRAs the administrative burden of this option would be more expensive and less flexible than option 4.

Very few feedbacks contained any specific quantification of benefits or costs, but in sum the consultations and all analysis suggests that there are significant benefits in comparison to costs. The minimum requirement principle implies that no data shall be required whose provision bears no proportion to benefits. Moreover, the efficient costs can be principally charged to the shippers by adjusting the network access fees³⁵. According to a comparison between the prices in the US and EU, an improved information provision that leads to an improvement in market efficiency by 1% would already save the EU industrial users annually 150 million euros³⁶ whereas the costs of increased transparency in the preferred option 4 are under 11,4 million for the year of initiation of new transparency measures and 2 million in the future³⁷.

³⁵ GEODE reply to questions to stakeholders on costs and benefits of transparency, 20 May 2009

³⁶ IFIEC

³⁷ See ANNEX 7, 8 and 9

	Economic effect	Security of Supply	Functioning Markets	Econ/Social/Env. effects	Time table	Probability Feasibility	SME	Administrative costs/€
Option 1. No action	TSO 0 NRA - Market --	--	--	Econ -- Soc 0 Env -0	Short term	Probable Feasible	-	
Option 2. Voluntary Regional Initiatives	TSO - Market +	+	+	Econ + Soc 0 Env 0	Long term	Not likely to succeed voluntarily in the scope required	Indirect +	Non applicable: No legal obligation to provide information
Option 3. Voluntary Financial incentives	TSO ++ NRA 0 Market 0	++	++	Econ + Soc 0 Env 0	Long term	Not feasible and would require European wide regulation	Indirect +	Non applicable: The cost are born by the systems users
Option 4. Revision of 715/2009	TSO 0 NRA+ Market++	++	++	Econ ++ Soc 0 Env 0	Short term	Feasible through comitology	Creates business Opportunities for IT companies	11,4 M first year, around 2 M per consecutive years
Option 5. Reporting to the NRAs	TSO - NRA -- Market -	++	+	Econ + Soc 0 Env 0	Short term	Feasible, not probable	Indirect +	14-18 M first year and around 5 M per consecutive years

Table 4 Policy options assessed in major effect dimensions

In the GTE balancing workshop the ECD Erdgas Consult assessed that the IT costs can be anything between a couple of thousand to 500 000 euros.³⁸ However even though most of the data required is already compiled by the TSOs and exists in one form or another and the benefits for publication are considerably higher than the direct IT costs that might incur, it is worth pointing out the problems with the TSO reward structure that were reflected also in the GTE answer. It is clear that for any new transparency requirements that cause costs for the TSOs, need to be compensated in the tariffs. In other words the NRAs need to comply with the

³⁸ See Marco Wettigs presentation at <http://www.gie.eu/events/gte/workshop/transparency/presented.html>

ERGEG opinion from Madrid Forum 2008 that the costs will be taken into account when setting the appropriate tariffication levels.

The uncertainty factor in all the policy options is related to the implementation and compliance. This applies with both the actions that are merely recommended or encouraged by the Commission and the option of amending the regulation. In the case of amending the existing Regulation the risk is however smaller as the Commission has the infringement tool at its disposal. A question concerning compliance is also the powers and autonomy of the NRAs, but as this issue is addressed in the third Electricity and Gas Directives adopted by the the Council in June 2009 by granting the regulators more room for manoeuvre and independence, it should not constitute a problem. However if the NRAs in turn refuse to amend the reward structure of the TSOs, some of the TSOs can be amount as obstacles for compliance. Concerning the effects outside the EU, all the other apart from the No EU- action alternative should make the EU market more interesting for gas producers and outside the EU.

The impacts are not foreseen to change considerably over time apart form the fact that the increasing transparency is just one step on the long way to construct truly functioning European markets for gas. Concerning societal groups there is not a specific group of consumers that could be identified as the biggest winners of losers in the case of keeping the status quo or increasing transparency according to the alternative recommended by the Commission. The energy intensive industry is likely to be the most affected in the case of failure of the voluntary options. Concerning regions, the NW region is in a better situation than the others as the region has already made some progress concerning transparency.

6.1. The preferred option: Option 4 - Amending chapter 3 of the transparency annex of Regulation 715/2009

The fourth option provides more certainty of compliance as it is given in the form of a regulation. It guarantees a uniform minimum of transparency across the Member States. Benefits in three categories are can be expected:

- Network use – With increased information, market participants would be better able to optimise flows and assess availability of capacity. This will enable improved management of their supply and demand portfolios through optimised use of the network. This will lead to an overall increase in efficiency of the use of the network and therefore lower costs for TSOs and network users.
- Competition – increased information improves understanding and market confidence, which may attract new entrants into the market, increasing competition in the market and improving trading activity and liquidity. Moreover, suppliers and traders will be better informed on market entrance and arbitrage possibilities between different markets due to better information on available capacities. This will decrease price differences, increase trade across borders and therefore trigger market integration.
- Security of supply – Better knowledge of system functioning and more transparency enhances competition and maximises the use of capacity. This leads to a competitive situation where the security of supply is better maintained with the help of multiple suppliers. More up-to-date information increases the ability of network users to respond to supply interruptions in a faster and better-informed way.

In the current framework of the third package transparency is only addressed in the Regulation itself, whereas the detailed design of the respective provisions is left to the annexed guidelines. The Commission should introduce binding guidelines for transparency by modifying the existing gas Regulation (EC) No 715/2009. The amended annex will require TSOs to provide forecasts and more detailed information both on capacities, gas flows, gas quality parameters and conversion capacities on an internet site accessible to the public and in both the national language and English. Furthermore the annex will require publishing historical data on flows, linepack information and providing information on imbalance charges to the shippers. This guarantees that all system users are treated equally and allows for gathering European wide aggregate data on gas pipeline systems.

Better and improved data on available capacities, nominations, flows, and secondary capacity market will enable newcomers to better enter the market and incumbent shippers to better unfold their competitive strategies. All in all, the proposed guidelines will increase efficiency of the use of the network and improve the diversification among its users. More competition will lead to greater choice for consumers and to the establishment of market-based gas prices.

Better, more up to date and accurate data on flows and line pack can contribute to better emergency preparedness and help to achieve better market transparency. Insufficient transparency or reliability of market data contributes to volatile prices. A disruption in gas supply may not necessarily entail a physical shortage of natural gas in Europe and yet may – due to the fairly low price elasticity of the demand of the commodity result into skyrocketing prices that obviously has a general overall effect on the economy.

Increasing transparency by granting the users of the gas transmission networks better and equal access to information on the capacity of the system, the gas quality parameters, expected demand developments and the composition of the transmission tariffs and penalties will greatly help the market functioning and increase the efficiency of the entire supply chain. By providing more transparency on the available transmission capacity and its historic use, suppliers will be able to optimise supply and trading and make use of the infrastructure in a more efficient way. This will contribute to the security of supply and increase efficiency leading to lower costs for both industrial and household users.

The Commission goes beyond the so called MinTra list, in that it proposes additional transparency requirements for secondary trading. The Commission believes that the scope of network related transparency covers not only primary capacity allocation or information directly linked to the use of the network. Rather, in the view of the Commission, all types of TSOs and shippers' action relevant to congestion management are in the scope of the transparency provision. Consequently, this includes secondary market design and behaviour, which is an important element in congestion management.

The fact that the common position expressed in the MinTra list reflects merely some minimum requirements alone illustrates that from the industry's point of view, too, reasonable transparency requirements seem to exist beyond the MinTra list. It is the Commission's task and its goal to design transparency requirements in a way that best balances the interests and positions of all market players. Therefore the Commission can naturally not satisfy itself with adopting a minimum agreed industry compromise.

The rules in the USA regarding network transparency also support the policy choice above, as the provision of information on the networks is an obligation, defined through detailed rules,

on transmission network operators. The policy choice is also confirmed by the statements in the IEA's natural gas market report 2009 quoted above.³⁹

7. MONITORING AND EVALUATION

The core indicators of progress concerning increased transparency are:

- The availability of information on the TSO websites
- Increased use of network capacity
- Improved interoperability between systems, in particular compatibility of capacity offers
- Wider variety of capacity products incl. interruptible capacity available on the market
- Increased secondary trading of capacity
- Number of active shippers and traders on the market

The outline for monitoring and evaluation is arranged through the NRAs and the feedback from the stakeholders biannually in the Madrid Forum for gas.

ABBREVIATIONS

TSO Transmission System Operator

NRA National Regulatory Authority

GRI Gas Regional Initiative

ERGEG European Regulators' Group for Electricity and Gas

GTE Gas Transmission Europe

Eurogas European Gas

GEODE European independent distribution companies of gas and electricity

GIE Gas Infrastructure Europe

IFIEC EUROPE International Federation of Industrial Energy Consumers

EFET European Federation of Energy Traders

³⁹ IEA Natural Gas Market Review 2009: 116 - 119

LIST OF ANNEXES

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ANNEX 1. Minimum Transparency Requirements List (MinTra List)

EFET, OGP, Eurogas, Eurelectric, CEDEC and GEODE presented their list of minimum transparency requirements in the Madrid Forum 2008. The list showed the need to enforce existing transparency requirements, on one side, and the need to further develop the Regulation in this respect, on the other side. IFIEC stated it also agrees with the list of minimum transparency requirements. The Associations asked together with ERGEG that these minimum requirements are made binding.

In the conclusions of the Forum the stakeholders agreed that TSOs can already provide the information asked for in the list of minimum transparency requirements on a voluntary basis. At the time GTE stated that TSOs would work on this in particular issue and committed it self in organising a workshop in early 2009. Simultaneously it was clear to the stakeholders, including ERGEG, that the TSOs would have to be allowed to recover the minor costs incurring from stricter transparency provisions.⁴⁰

The list requires for the TSOs to provide more detailed real-time and historic information on availability and use of capacities, gas flows, balancing and gas quality conversion capacities on an internet site accessible to the public and in both the national language and English. The main requirements of the minimum transparency list can be grouped under six different sections with the motivations of the associations:

Form of publication

On a website accessible to the public, with no cost

In consistent units

In the national language and in English

All data (unless confidential to an individual shipper) should be made available to market participants. Provision of information in a raw data format is crucial for markets participants to undertake their own analysis. However analysed or graphical data could be provided in addition. Publication in national and English language and the use of consistent units will reduce costs for market participants and facilitate market entry and integration.

Transmission capacity

Daily maximum available technical, commercial and booked capacity and the baseline capacity

Maintenance schedule and outage periods

Criteria and rules for Supply Emergency

Web-based secure Booking and Nomination System

Information on daily maximum available technical capacity helps market participants to analyse and understand long term capacity constraints and allow for more effective and efficient commercial decisions e.g. through any open seasons. Market participants must also know whether there is commercial capacity available and the amount of booked capacity. According to the associations this information must be provided in real time in order to ensure that commercial decisions can be taken and the use of capacity maximised. Baseline capacity is defined as the agreed minimum amount of maximum technical capacity TSOs must offer to

⁴⁰ The Madrid Forum Conclusions are available at:
http://ec.europa.eu/energy/gas_electricity/forum_gas_madrid_en.htm

the market consistent with safe and secure operation of the system. If capacity is defined and provided in this way market participants must know how much is available and whether it conforms to the agreed levels.

Maintenance and outages can impact on availability of capacity and therefore market participants must know as soon as they are planned so mitigating steps can be taken if necessary. Market participants need to know what steps will be taken in the event of a supply emergency as they can have significant impacts on the availability of capacity and on what steps TSOs could take to manage supply-demand balance. Secure web based systems are the most effective and efficient of booking and nominating capacity - but as indicated above the only data that is confidential to an individual shipper should be constrained to this part of the TSO website.

Gas quality

Full specification of quality and pressure requirements for all relevant points
Procedures used for dealing with off-spec gas and any conversion costs
Daily actual measured values of quality parameters

Market participants need to know the gas quality parameters applying to each network in order to take effective commercial and operational decisions with regards to sourcing and nominating gas and the need for any conversion/treatment. Furthermore the shippers must be aware of any procedures and costs for dealing with any gas that does not meet the specified parameters. The daily actual measured values the allows market participants to assess actual flows against the specified parameters and validate charges that have been incurred for any conversion/treatment.

Gas Flows

Daily prompt allocation information
Daily flows and interruptions ex post +1D and for a historic 5 year period
Restoration of flows in real time
Daily aggregate day-ahead nominations 30 min after gate closes

The allocation information allows the market participants to assess their costs promptly. Flow and interruption information is crucial for understanding system operation and also for putting efficient valuation on capacity products (e.g. interruptible) offered by TSOs. Historic information allows market participants to build up historic view of flows/interruptions to better understand system performance and therefore costs incurred and to value capacity products. Market participants also need to know immediately when flows are restored in order to manage their costs and risks effectively. The day ahead nominations help the market participants to assess system usage and the potential impact on costs incurred (e.g. balancing costs).

Balancing and related

Calculation method for quantities and charges in real time and volume and cost per shipper
Daily aggregate forecast(D-1) and actual(D+1) linepack and historic (5year) linepack
Daily aggregate demand forecast for each balancing zone D-1 at 8 a.m.

Market participants need to know how imbalance quantities and related charges are calculated in order to fully understand the costs and risks they are exposed to. They also need to know the imbalance charges applying in real time so that efficient rectifying steps can be taken in

the event of any imbalance. The associations see that a less frequent information provision will increase the risks for market participants and therefore deter market entry.

Market participants need to know the balancing costs incurred so that offsetting steps can be taken and risks managed effectively and efficiently. Linepack information is crucial not only where it is offered directly as a flexibility product by the TSO as it also highlights how the system is being operated and gives indications as to how TSOs deal with imbalances and where constraints may exist and investment may be needed. The information allows users to better value and understand any bundled flexibility services/tolerance levels and help them identify ways of improving balancing mechanisms.

Seasonal outlook report

Report outlining supply-demand balance and security of supply prospects + impact of infrastructure projects on level and pattern of gas flows.

The Seasonal outlook report provides important information on the longer term of development and integration of networks (e.g. availability of capacity) which is crucial factor impacting on commercial strategy of market participants.

ANNEX 2. Stakeholder Consultation questions



EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT

DIRECTORATE C - Security of supply and energy markets

C.2 - Electricity & Gas

Annex

Questions for stakeholders concerning the revision of the annex of chapter 3 on transparency of the regulation 1775/2005

General Note

The Commission is interested in your expert's views on the costs and benefits of increased transparency and therefore we would appreciate if you try to be as specific as you can in answering the questions. The quantification of the cost of a particular measure can be done by defining the personnel resources needed (i.e. the amount of work in hours/days of a data analyst or an IT-expert etc). The quantification of the eventual benefits is equally important and therefore providing examples of the effects on your business is highly welcome.

The first questions in each chapter are mainly addressed to the systems operators whereas the last one is to the network users and consumers. Furthermore, if there is an alternative piece of information that you believe would be more useful for the system users and enhance transparency more than the ones specified in the in the questions or the original minimum transparency requirements list, please elaborate. Also, if there are any other costs and/or benefits that you envisage related to the topics listed below please state them.

1. Form of the publication

- 1.1. Could you give an estimate of the IT-costs of publishing the information referred to in this questionnaire under chapters 2 to 5 on a website accessible to the public and in consistent units?
- 1.2. Can you divide these costs into capital expenditures and operational expenditures?
- 1.3. Could you give an estimate of the translation costs (i.e. in hours of translator work) for publishing the information in both the national language and English? Is this cost a one-time expenditure or repeated frequently?
- 1.4. Could you motivate and quantify the benefit for the systems users on publishing the information on a public website, and publishing it in English?

2. Gas quality

- 2.1 What is the cost of providing information on the capacity regarding blending, ballasting and other possible gas quality conversion services?
- 2.2 Can you specify and give an estimate of the economic benefit for shippers, consumers and the market as a whole of having access to information on gas quality and gas quality conversion services?

3. Transmission capacity:

- 3.1 What is the cost of keeping the information regarding capacity availability and use up to date in "real time"?
- 3.2 What is the cost of providing daily aggregate linepack forecasts?
- 3.3 How does receiving information on linepack forecasts affect your business?

4. Gas Flows:

- 4.1 Could you provide an estimate of the cost of publishing information concerning:
Daily updated historic gas flows for the past five years?
Daily updated information on the allocation of flows to individual capacity users?
- 4.2 Could you elaborate how the data on the flows help the systems users and quantify the economic benefit that can be derived from publication of flow information?

5. Balancing:

- 5.1 What is the cost of providing information to each capacity user regarding their preliminary imbalance data one month after the end of the balancing period and final imbalance data two months after the end of the balancing period?
- 5.2 Can you quantify the benefit for the systems users for obtaining preliminary imbalance data within one month and final imbalance data within two months?

ANNEX 3. Bilateral stakeholder consultation

For the bilateral consultation answers were provided by EFET, IFIEC, Geode, Eurogas, GTE, PGNiG, and ERGEG. The motivations of the associations are very much in line with the arguments they made

Publishing data on the Internet is seen to be the practical way to make “near on-line” data available for all stakeholders at the same time. Information in English is seen as motivated choice by all the respondents, especially as adopting English alongside their national language the TSOs will also improve consistency of terminology as well as coherence in access regime understanding, as noted by Eurogas.⁴¹

Generally concerning the form of publication, the system users consider the publication in consistent units and in raw data format to be important in order to reduce costs for market participants from translating information and using separate IT solutions to extract and manipulate data and to reduce the risks and costs of misinterpretation of data. EFET argues that although larger market participants may have the resources to better manage these issues in more developed markets, costs increase for developing markets where barriers to entry are already high. “*For smaller market participants, these issues represent significant barriers to entry regardless of the level of market development.*”⁴². PGNiG states that data concerning individual shippers nomination and execution should not be revealed to third parties.

GTE argues for conversion factors instead of uniform units and sees that formal publication of units must be compliant with the national legal and regulatory requirements. GTE sees TSOs providing conversion factors that can be used to convert the applicable units into kWh as defined in EASEEgas CBP on Harmonisation of Units 2003-001/01 as an alternative solution to uniform units: “*The conversion factor may be defined as one per the whole system or per individual points. These conversion factors may also be found on the GTE+ Transparency Platform for the participating TSOs.*”⁴³

Gas quality is also seen as indispensable information by the users, but no estimate of cost or benefits implicitly regarding blending, ballasting and other possible gas quality conversion services was provided by the associations.

EFET, Eurogas and GEODE stand is that market participants must be able to assess actual flows against the specified parameters and validate charges that have been incurred for any conversion/treatment. This will help them make more effective and informed decisions (in the interest of consumers) with regards to the sourcing of gas to help ensure it is “in-spec” and therefore lower gas conversion/ballasting costs. Furthermore they need to know the procedures and costs for dealing with any gas that does not meet the specified parameters. Any uncertainty could create barriers to the efficient flow of gas which may cause security of supply issues or inhibit an efficient market response to any supply emergencies.⁴⁴

IFIECs input states that in chemical applications, natural gas is used as a methane feedstock. Therefore chemical composition is a key input to operating processes as safely and efficiently

⁴¹ Eurogas response to DG TREN, 20 May 2009

⁴² EFET Consultation, 20 May 2009

⁴³ GTE position on the Minimum Transparency Requirements List

⁴⁴ EFET and Eurogas

as possible. The lack of information on gas composition brings inefficiency in the short-term, and can even jeopardize the sustainability of some businesses in the mid and long-term. *“To give an order of magnitude, an annual 10% variation in methane content (observed in some areas in western Europe) represents a loss of almost €500 million for the European chemical industry every year.”*⁴⁵

According to GTE quality information is not relevant in systems where the TSO takes the risk associated with the off-spec gas. Furthermore GTE considers that in case of the delivery of on-spec gas, the only Gas Quality parameter that is relevant as access condition on daily basis is the Gross Calorific Value (GCV). In systems where capacity is marketed in energy units and allocation at Interconnection Points (IPs) follows the OBA rule (what-is-nominated-is allocated), the GCV becomes irrelevant information for the network users as it is not an access condition.⁴⁶

Concerning transmission capacity the systems users argue that in addition to information on their individual balancing positions, shippers need forecast and actual information on the balancing needs of the overall system to enable them to take efficient balancing decisions.

The most controversial parts of the list seem to be the provisions on linepack⁴⁷. Linepack information is seen crucial by EFET as it highlights how the system is operated and gives indications as to how TSOs deal with imbalances. *“Greater transparency on linepack will therefore directly benefit market participants by allowing them to take more effective and efficient commercial decisions. It will also have wider benefits in terms of improved monitoring of potential security of supply issues; better targeted investment; and improved market design.”*⁴⁸

Only GEODE answered the actual question of linepack forecasts. Geode perceives the forecasts to crucial as they are of help fro the TSO in taking operational and commercial decisions, especially with regard to external balancing energy trade and efficient capacity management. From the shipper’s perspective, the forecast of linepack provides for knowledge on how the system functions and how it should be managed. Linepack forecast determine the costs of active network management through acquiring of balancing energy. The available linepack constitutes an indicator of balancing energy costs and allows for launching own, short term balancing measures. The linepack forecast for the next day allows the shippers to react flexibly. This is especially the case in the light of the ongoing discussion on CAM & CMP and the possibility taken into consideration, aiming at limiting short-term re-nomination rights. With regard to linepack forecast it is important to emphasize that the aggregated data should refer to the next gas day and not to the actual gas day.⁴⁹

Different TSO systems may have different ways of facilitating assessment of system balancing needs, and use different terms to describe these. Eurogas defines “Linepack” as something used as a key indicator of the balancing needs of the system in the UK and acknowledge that other terms and/or other measures may be used in different balancing

⁴⁵ A contribution of IFIEC Europe, 20 May 2009

⁴⁶ GTE

⁴⁷ Linepack is the term for gas storage within the pipeline. Enabling shippers to buy linepack will allow them to manage supply and demand flow variations across the shorter balancing periods

⁴⁸ EFET

⁴⁹ GEODE Questions concerning the revision of the annex of chapter 3 on transparency of the regulation 1775/2005, 20 May 2009

systems. Eurogas proposes that alternative to linepack would be to know the actual system pressure, alongside information on the minimum and maximum operating pressures.⁵⁰

GTE considers that linepack information should not be provided in systems where such information could commercially harm the TSO or possibly lead to abuse of the balancing regime by some of the Network Users, or where the information as such does not constitute the basis for commercial decisions relating to operational balancing. As far as the abuse of the balancing regime by the Network User is concerned, GTE is of the opinion that room should not be unnecessarily created for such opportunity even if ex-post action by relevant regulatory and competition authorities is always possible as the costs may be high and incurred by Network Users that may not benefit from any ex-post applied penalties: “*The provision of the linepack information to all may in fact prove discriminatory as some Network Users may be flexibility providers to the TSOs on the basis of bilateral contracts.*”⁵¹ Furthermore GTE argues that maintenance schedules and planned outage periods can be published only when they have gone through intra-TSO approval procedures.

EFET considers that gas flow information (including historical information) is crucial to allow market participants to better understand system performance, better value capacity products (e.g. interruptible capacity) and to take more effective and efficient commercial decisions. The market participants must know the flows that have been allocated to them so that they can assess their costs promptly and take any corrective action in the event they are imbalanced.⁵²

IFIEC argues that data on gas flows and available capacities would allow end consumers to assess if capacities are well allocated. Lack of competition due to poor access to existing capacities may cost several €/MWh to large industrial users (such differences can be observed for smaller sites where competition is more significant). The quantification was provided on a general level, referring to the difference of 1€/MWh being equivalent to a saving of €1.5 billion across Europe.⁵³

According GTE allocations specific to individual Network Users are confidential and are provided to the respective Network Users only through agreed means of communication. In some systems, allocations for the final settlement are only available up to 12 months later due to the fact that readings of meters of non-continuously metered customers are done on yearly basis only.

GTE argues that the flows that seem to be relevant for the Network Users are in fact allocations at the IPs as they reflect how Network Users are utilising their contracted capacity. Depending on the flow allocation mechanism applied⁵⁴ aggregate allocations may reflect actual flows (SBA, Pro-rata) or the aggregate confirmed quantities (OBA). The difference between the actual flow and the aggregate confirmed quantities in the OBA regime is usually relatively tiny compared to the overall flow and reflect 1) the impossibility to steer the flow with absolute precision, 2) the balancing of the Operational Balancing Account through which the differences between the actual flows and the confirmed quantities are operationally settled and 3) possibly also any short-term inter-TSO assistance.

⁵⁰ Eurogas
⁵¹ GTE
⁵² EFET
⁵³ IFIEC
⁵⁴ OBA, SBA, Pro-rata

The only exception to the above are IPs where there is metering for only one (the prevailing physical) flow direction but there are also commercial flows in the opposite direction which are netted. In such cases, the TSOs should also publish the net flow to provide clear information on the capacity utilisation. The Transmission-Distribution interface may be very complex in some systems possibly consisting of thousands of points. In such case, information on Flows should only be provided through efficient aggregation which should be agreed at the national level.⁵⁵

No direct quantification on the direct benefit for the systems users for obtaining preliminary imbalance data within one month and final imbalance data within two months was provided. EFET argued that market participants need to know the balancing costs incurred so that offsetting steps can be taken and risks managed effectively and efficiently. Imbalance charges can represent a significant cost for users and allowances will be made to cover potential future liabilities. The longer the period of time before the final imbalance position is known the greater the cost of managing the exposure.⁵⁶

Balancing costs have been identified by IFIEC members as one of the most important barrier for new entrants, as a large customer portfolio is necessary to optimize balancing costs. Therefore the industrial users see it as completely unacceptable to impose daily, and in some cases even hourly balancing requirements when this data is not available for one month. Imbalance data must be made available on a real-time basis, at least for large consumers. IFIEC also emphasized the need to have market-based balancing mechanisms. Arbitrary penalties which are used in many Member States currently cost an additional €150 millions to industrial consumers and more transparency would help building fair and non-discriminatory balancing regimes.⁵⁷

Finally GTE points out that the differences between the balancing systems make it very difficult to set one common list of information items that should be made available by all TSOs to all and would comply with the transparency framework as defined in REG-1775. According to GTE a common definition for the Daily Aggregate Demand Forecast is currently only possible on the basis of Nominations. The TSOs that have and use enhanced tools to prepare own demand forecasts are encouraged to make such forecasts available to the Network Users.⁵⁸

Cost of transparency

Very few feedbacks contained any specific quantification of benefits or costs, but in sum the consultations and all analysis suggests that there are significant benefits in comparison to costs associated with increasing transparency, particularly in relation to enhancing the economic and efficient operation of the market.

For example GEODE wasn't capable of providing exact figures on the cost of publication, but noted that as the TSOs regularly possess the required data, the arising costs will not concern the data-generating, but "solely" data-exchange: *"In any case, the costs of complying with new transparency obligations constitute issue of secondary importance, since all in all the cost-benefit ratio connected with the introduction of transparency requirements turns out positively*

⁵⁵ GTE
⁵⁶ EFET
⁵⁷ IFIEC
⁵⁸ GTE

for the overall economy structure.”. The organization reminds that minimum requirement principle implies that no data shall be required whose provision bears no proportion to benefits. Moreover, the efficient costs can be principally charged to the shippers by adjusting the network access fees.⁵⁹

EFET argued that as the size of the EU gas market is more than €100 billion per annum, and a short disruption to EU gas supplies (as occurred in January 2009) can have an impact of several billion euros on EU citizens. For example, improved information provision that results in even a 1% improvement in market efficiency, or allows an improved response in the event of supply disruptions would have benefits of at least several millions of euros per day. According to a comparison between the prices in the US and EU, already a 1% efficiency increase would save the EU industrial users annually 150 M euros.⁶⁰

The UK Regulator Ofgem prepared 2006 an Impact Assessment on the costs of transparency. The study provides information from the UK TSO National Grid NTS that show that the majority of expenditure is predicted to be apportioned almost equally between hardware and software costs. The transparency requirements are stricter in the UK than the ones proposed in the minimum transparency list and therefore this information can be used only to give a rough idea the costs of certain provisions. National Grid NTS didn't routinely use the required two-minute flow data from the sub-terminal meters and therefore additional extraction of the data was required from the Integrated Gas Management System (iGMS).

As this system was not designed to supply real time data to non operational systems, the cost of the iGMS modifications contributed the majority of the 495 000 GBP estimated system development and testing costs. Furthermore analysis had identified that existing web servers used by National Grid NTS were either unsuitable or lacking in available capacity to process and publish the vastly increased volume of data. The National Grid therefore made a provision for an entirely new web hardware platform which made up the majority of the 632 500 GBP estimated hardware costs. The NG Project Resource was estimated at 153 000 GBP for lifetime of the project including project initiation costs and support after at 100 000.⁶¹

In the GTE balancing workshop the ECD Erdgas Consult assessed that the IT costs can be anything between a couple of thousand to 500 000 euros.⁶² However even though most of the data required is already compiled by the TSOs and exists in one form or another and the benefits for publication are considerably higher than the direct IT costs that might incur, it is worth pointing out the problems with the TSO reward structure that were reflected in the GTE answer: *“the principle that TSOs should be rewarded, incl. the full cost coverage, for the provision of transparency was cast in doubt by the BNetzA which stated that in Germany, the coverage of costs of any additional voluntary transparency will be assessed on case-by-case basis.”*⁶³

⁵⁹ GEODE

⁶⁰ IFIEC

⁶¹ 3rd Party Proposal: Publication of Near Real Time Data at UKsub-terminals. Ofgem, United Kingdom

⁶² See Marco Wettigs presentation at <http://www.gie.eu/events/gte/workshop/transparency/presented.html>

⁶³ GTE

ANNEX 4. Feedback and analysis on secondary markets

CEER published 18 October 2007 a consultation paper on secondary markets where the main content is a quantitative analysis in NW-Europe showing that there are no liquid secondary markets for transmission capacity at NW European cross-border interconnection points. The paper proposes an improvement of the secondary market design (e.g. examples as the day-ahead auction pilot on Bunde und Ellund) and secondly improvement of existing and development of new positive (improve the current interruptible UIOLI mechanism; study alternative congestion management procedures) and negative incentives for the primary market.⁶⁴

Market monitoring shows that 2ndary market trading remains a closed shop and very opaque to outsiders. The Sector Inquiry monitored as follows:

When capacity is allocated on the secondary market, roughly half of it is bought by affiliates of the primary capacity owners. An important part of the secondary allocation also goes to other incumbents (typically a historic player from a neighbouring country) and to gas producers. Only approximately 5% of longer term capacity allocation goes to new entrants.⁶⁵

Access to secondary transit capacity, which should be in theory open to new entrants, has in reality not been obtained by them, with the majority being secured by incumbent suppliers from other Member States or large gas producers.⁶⁶

Several respondents complained about the lack of liquidity and transparency on the secondary market.⁶⁷ New entrants explained that the identification of capacity holders would facilitate secondary trading in capacity. The majority of users found that information on the identity of primary capacity holders was important (about 32%), useful (about 28%) or indispensable (15%). Information on the identity of secondary capacity holders is also considered useful by about 36% of the users, important by about 24% and indispensable by about 13% of them.⁶⁸ The practical organisation of secondary trading of capacity is of course of major importance and its rules should be made public⁶⁹.

A number of new entrants would welcome the creation of a single transparent and integrated web platform providing information on available capacity for all transit pipelines. The results suggest that the benefits of secondary market trading remain merely limited to incumbents and the potential to foreclose markets from the primary to the secondary market.

The lack of transparency on secondary markets adds up to significant barrier to competition and therefore it should be defined which information should be made public in detail E.g. capacity offered, period, price offered/contracted at, seller, commercial terms.

The publication of up to date and detailed information will allow shippers in need of capacity to assess the liquidity of the capacity market on the one hand, and the types and prices of products typically sold on the other. The publication of the type of sale is another piece of

⁶⁴ [http://www.ergeg.org/portal/page/portal/ERGEG_HOME/ERGEG_PC/Secondary%20Markets\]](http://www.ergeg.org/portal/page/portal/ERGEG_HOME/ERGEG_PC/Secondary%20Markets)

⁶⁵ DG Competition Energy Sector Inquiry (215), DG COMP 2007

⁶⁶ ibid conclusions on page 86

⁶⁷ Sector Inquiry (169)

⁶⁸ ibid (276)

⁶⁹ ibid(278)

relevant information to those shippers, because it will help them assess with respect to their future action whether they are likely to become the full owner of the purchased capacity or whether they will rather be limited to exercising certain usage rights and what the respective costs of either alternative will be. In combination, the information to be published by the TSO under this proposal will improve the odds for such shippers short on capacity to enter the market or to complete their capacity portfolio. Moreover, it will allow those shippers long on capacity to make a realistic assessment of current market trends, facilitating their offers on the secondary capacity market. Finally, the requirement for this data to be published in aggregated format ensures protection of confidentiality of individual shippers' behaviour on the secondary capacity markets, which would otherwise allow conclusions with respect to their commercial positions.

The standardisation of products will help increase liquidity, because it improves tradability of capacity products. Generally, a higher degree of standardisation should lead to higher liquidity because it reduces shippers' efforts necessary when engaging in the secondary market. It makes participation in trades easier and allows for better capacity portfolio optimisation, because standardised products can usually be combined more easily, improving the value of capacity available on the secondary market. Moreover, re-selling capacity purchased on the secondary market should become possible. Finally, shippers selling capacity will more easily be able to find buyers for standardised products.

Requiring documentation of information facilitates the effective enforcement of the use-it-or-lose-it principle. National regulators are put in a position where they can analyse secondary market data beyond the publicly available aggregated information. The NRAs will be given them access to data on individual shippers' actions on the secondary market. In combination with specific data on nominations, this will enable national regulators to assess whether unused has been made available to the market. Where this is found not to be the case, national regulators may conclude that capacity was hoarded. This possible scenario alone should help deter shippers from hoarding, thus again helping increase liquidity on the secondary market.

ANNEX 5. Network transparency in the USA

The American regulator has defined that the market needs several different types of information, both for decision-making and monitoring purposes: information on capacity transactions, such as rates, contract duration, and contract terms; information on the structure of the market; and information on capacity availability. The current regulations in the US already require the publication and/or reporting of relevant information regarding gas markets, that address both use of infrastructure and gas buy and sell transactions. For instance, pipelines are required to post detailed information to the public on capacity release transactions, including the releasing and replacement shipper names, the rate paid, and points covered by the release, when the transactions occur.

In the United States transparency on the supply market is achieved partially through stricter reporting to the NRA. In addition of the pipelines⁷⁰ providing information to the market participants, the market participants are required to report to the NRA. FERC requires for all market participants that sell or buy natural gas on the wholesale market annually more than *de minimis*⁷¹ amount to report the following information:

- (a) the total volume of transactions for the previous calendar year;
- (b) the volume of transactions that were priced at fixed prices for next-day delivery and were reportable to price index publishers;
- (c) the volume of transactions priced by reference to next-day gas price indices;
- (d) the volume of transactions that were priced at fixed prices for next-month delivery and were reportable to price index publishers; and,
- (e) the volume of transactions priced by reference to next-month gas price indices.

According to FERCs existing regulations, interstate pipeline is required to post information on its Internet web site, and provide the information in downloadable file formats. The information concerns the amount of operationally available capacity at receipt and delivery points, on the mainline, in storage fields, and whether the capacity is available directly from the pipeline or through capacity release. Furthermore it is required that pipelines add the following information on capacity availability to the information that is already collected: the total design capacity of the point or segment; the amount of capacity scheduled at each point on a daily basis; and information on planned and actual service outages that would reduce the amount of capacity available. The Regulator expects that the pipelines will provide advance notice of planned outages or service disruptions so that shippers can plan for these events.⁷²

The pipelines were required to post already in 2000 following information on their Internet site and in downloadable formats:

⁷⁰ Requirements apply to interstate pipelines and extension to main high pressure pipelines within States were considered in 2008. Basically from a European perspective this covers any capacity to transport gas between different market zones.

⁷¹ 2 200 000 MMBTUS equals approximately 650 GWh

⁷² FERC 637(2000): 202

Table 5 Transparency requirements for interstate pipelines in the US⁷³

Firm and Interruptible service⁷⁴	Index of customers	Available capacity	Storage report
Firm timely, interruptible daily	1 st business day of each calendar quarter	Timely, Peak capacity by an annual filing by March 1 of each year	Within 30 days of the end of each complete injection and withdrawal season
The full legal name of the shipper	The full legal name of the shipper	Availability of capacity at receipt points, on the mainline, at delivery points, and in storage fields	The identity of each customer injecting gas into storage and/or withdrawing gas from storage
The contract number for the shipper receiving service under the contract	The contract number	The total design capacity of each point or segment on the system	The rate schedule under which the storage injection or withdrawal service was performed;
The rate charged under each contract	The applicable rate schedule number under which the service is being provided;	The amount scheduled at each point or segment on a daily basis	The max. storage quantity and max. daily withdrawal quantity applicable to each storage customer
The maximum rate. Capacity release transactions not subject to a max. rate, the max. rate that would be applicable to a comparable sale of pipeline services		Estimated peak day capacity of the pipeline's system, and the estimated storage capacity and maximum daily delivery capability of storage facilities	For each storage customer, the volume of gas (in dekatherms) injected into and/or withdrawn from storage
The duration of the contract	The effective and expiration dates of the contract	All planned and actual service outages or reductions in service capacity.	The unit charge and total revenues received from each storage customer
The receipt and delivery points and zones or segments covered by the contract	The receipt and delivery points and the zones or segments covered by the contract		
The contract quantity or the volumetric quantity under a volumetric release	For transportation service, the maximum daily contract quantity and for storage service, the maximum storage		

⁷³ FERC 637(2000): 252-257

⁷⁴ Contract number or duration not applicable for interruptible service

	quantity		
Special terms and conditions applicable to a capacity release and details pertaining to a pipeline transportation contract	An indication as to whether the contract includes negotiated rates;		Extent of any discounts permitted
Whether there is an affiliate relationship between the pipeline and the shipper or between the releasing and replacement shipper	Any affiliate relationship between the pipeline and a shipper or a shipper's asset manager or agent.		Any affiliation with the interstate pipeline

In all, the US requirements are significantly more favourable to the systems users than the EU requirements at present, given that very limited information is generally available in the EU.⁷⁵ Concerning the minimum transparency list, the situation is mixed:

The US already publishes already since year 2000 more information than the MinTra list requires for booked pipeline or storage capacity. As yet the US does not require published information for actual flows – either relating to storage or pipelines – unlike the requirements set out in the MinTra list. But in general provision of data on US high pressure gas pipelines is well ahead of the EU and is being extended further with new proposals for daily updates of actual flows. The US system focuses on getting the information published in the first place and relies on the market to make sense of the data. This has meant that in the US private sector companies take on the role of cleaning the data and selling it in a uniform format.

The information required on individual shippers is extensive and the shippers enjoy very little discretion. FERC has argued that by obtaining the volume of transactions conducted for each significant market participant, itself, the market participants and others will be able to determine the overall level of activity of market participants in the physical natural gas market. In particular, the information will provide regularly an estimate of the size of the physical U.S. domestic natural gas market, the use of index pricing in that market, the size of the fixed-price trading market that produces price indices, and the relative sizes of major traders.⁷⁶

⁷⁵ IEA Natural Gas Market Review 2009: 115

⁷⁶ FERC Order No. 704, 2007: 35-39

ANNEX 6. Increased transparency for gas markets - general effects

Economic impacts		Stakeholders views
Public sector cost of regulation (lower cost = positive)		Apart from the design of regulation and the costs of implementation, the cost of regulation will be limited to adding some pages to existing website.
Private sector (compliance) costs (lower cost = positive)		- Assuming that the information requirements will be limited to communicating information that already is available, the costs of compliance needed can be (very) limited
Private sector investments (arithmetic indicator)		The amended regulation does not affect private sector investments.
Public sector spending (lower spending = positive)		The amended regulation does not affect public sector spending.
Energy markets contestability (contestability = positive)		Implementing the transparency package is expected to have a strong positive effect of the contestability of the energy markets and development of competition which will have a positive effect on economic growth.
Economic growth (growth = positive)		
Energy prices (lower prices = positive)		As a result of better functioning energy markets energy prices will be closer to the cost of energy sources.
Environmental impacts		Stakeholders views
Modal shift (sustainable = positive)		Improved market efficiency probably will not have a significant effect on the use of

		renewable energy sources.
Emissions (lower emission = positive)		Lower prices resulting from more efficient energy markets may lead to somewhat lower pressure to reduce energy consumption.
Social impacts		Stakeholders views
Employment (arithmetic indicator)		The improved efficiency of energy markets resulting from the policy package may have a negative effect on employment in the sector. This negative effect is however expected to be more than compensated by employment effects of economic growth in general.
Consumer protection (public aid = positive)		The amended regulation does not affect consumer protection.
Security of supply (secure supply = positive)		Better market information will foster better planning of allocation of capacities and thus may have a significant positive effect on security of supply.

ANNEX 7. Administrative burden on TSOs / Option 4

Impact Assessment on Annex 3. Regulation 1775/2005						Tariff (€ per hour)	Time (minutes)	Price (per action)	Freq (per year)	Nbr of entities	Total number of actions	Equipment costs (per entity & per year)	Outsourcing costs (per entity & per year)	Total Administrative Costs	Business As Usual Costs (% of AC)	Total Administrative Burdens (AC - BAU)	Regulatory origin (%)				
Policy Option 4. Amending the the Annex 3 / Administrative burden on TSOs																	Int	EU	Nat	Reg	
No.	Art.	Orig. Art.	Type of obligation	Description of required action(s)	Detailed action																
1			Information labelling for third		improved format of publication	45	9.600,00	7.146	1	34	34			242.950	0%	242.950					
2		Application for individual authorisation or exemption	sufficient historical information		45	9.600,00	7.146	1	34	34					242.950	0%	34				
3		Information labelling for third	detailed information on gas quality		45	150,00	112	52	34	1.768					197.397	0%	1.768				
4		Submission of (recurring) reports	timely publication i.e. real time information		45	30,00	22	365	34	12.410					277.115	0%	12.410				
5		Submission of (recurring) reports	Adjusting existing data	enhanced granularity of information, i.e. smaller publication periods	45	60,00	45	365	34	12.410	200.000			7.354.231	0%	12.410					
6		Information labelling for third		detailed information on liabilities and interruptions	45	150,00	112	52	34	1.768				197.397	0%	1.768					
7		Other	Submitting the information (sending it to the designated recipient)	establishing a secondary market design and a web platform	45	7.200,00	5.359	1	34	34	70.000			2.562.213	0%	34					
8				running the secondary market	45	30,00	22	365	34	12.410				277.115	0%	12.410					
9							0			0				0	0%	0					
10							0			0				0	0%	0					
11							0			0				0	0%	0					
12							0			0				0	0%	0					
13							0			0				0	0%	0					
14							0			0				0	0%	0					
15							0			0				0	0%	0					
16							0			0				0	0%	0					
17							0			0				0	0%	0					
18							0			0				0	0%	0					
19							0			0				0	0%	0					
20							0			0				0	0%	0					

ANNEX 8. Administrative burden on system users/Option5.

Annex 3. Regulation 1775/2005						Tariff (€ per hour)	Time (minutes)	Price (per action)	Freq (per year)	Nbr of entities	Total number of actions	Equipment costs (per entity & per year)	Outsourcing costs (per entity & per year)	Total Administrative Costs	Business As Usual Costs (% of AC)	Total Administrative Burdens (AC - BAU)	Regulatory origin (%)			
Policy option 5. Stricter reporting to the NRAs /Administrative burden on shippers																	Int	EU	Nat	Reg
No.	Art.	Orig. Art.	Type of obligation	Description of required action(s)	Target group															
1				the total volume of transactions for the pre		45	420.00	313	12	90	1.080			337.630	0%	337.630				
2				the volume of transactions that were price		45		0			0			0	0%	0				
3				delivery and were reportable to price index publishers		420.00		0	12	90	1.080			0	0%	1.080				
4				the volume of transactions priced by refere		45	420.00	313	12	90	1.080			337.630	0%	1.080				
5				indices;				0			0			0	0%	0				
6				the volume of transactions that were price		45	420.00	313	12	90	1.080			337.630	0%	1.080				
7				delivery and were reportable to price index publishers				0			0			0	0%	0				
8				the volume of transactions priced by refere		45	420.00	313	12	90	1.080			337.630	0%	1.080				
9				indices				0			0			0	0%	0				
10								0			0			0	0%	0				
11								0			0			0	0%	0				
12								0			0			0	0%	0				
13								0			0			0	0%	0				
14								0			0			0	0%	0				
15								0			0			0	0%	0				
16								0			0			0	0%	0				
17								0			0			0	0%	0				
18								0			0			0	0%	0				
19								0			0			0	0%	0				
20								0			0			0	0%	0				

ANNEX 9. Administrative burden on NRAs / Option 5.

Impact Assessment on Annex 3. Regulation 1775/2005						Tariff (€ per hour)	Time (minutes)	Price (per action)	Freq (per year)	Nbr of entities	Total number of actions	Equipment costs (per entity & per year)	Outsourcing costs (per entity & per year)	Total Administrative Costs	Business As Usual Costs (% of AC)	Total Administrative Burdens (AC - BAU)	Regulatory origin (%)			
Policy Option 5. Stricter reporting to the NRAs /costs for NRAs																	Int	EU	Nat	Reg
No.	Art.	Orig. Art.	Type of obligation	Description of required action(s)	Detailed action															
1			Registration		improved format of publication	45	4.800,00	3.573	12	27	408	50.000		2.807.702	0%	2.807.702				
2			Application for individual authorisation or exemption		sufficient historical information	45	4.800,00	3.573	12	27	324			1.157.587	0%	324				
3			Information labelling for third		detailed information on gas quality	45	150,00	112	52	27	1.404			156.757	0%	1.404				
4			Submission of (recurring) reports		timely publication i.e. real time information	45	60,00	45	365	27	9.855			440.124	0%	9.855				
5			Submission of (recurring) reports	Adjusting existing data	enhanced granularity of information, i.e. smaller publication periods	45	60,00	45	365	27	9.855	70.000		2.330.124	0%	9.855				
6			Information labelling for third		analysis of detailed information on liabilities and interruptions	45	420,00	313	52	27	1.404			438.918	0%	1.404				
7			Other	Filing forms and tables	establishing a secondary market design and a web platform	45	7.200,00	5.359	1	27	34	70.000		2.072.213	0%	34				
8					analysis of the secondary market	45	120,00	89	365	27	9.855			880.249	0%	9.855				
9								0			0			0	0%	0				
10								0			0			0	0%	0				
11								0			0			0	0%	0				
12								0			0			0	0%	0				
13								0			0			0	0%	0				
14								0			0			0	0%	0				
15								0			0			0	0%	0				
16								0			0			0	0%	0				
17								0			0			0	0%	0				
18								0			0			0	0%	0				
19								0			0			0	0%	0				
20								0			0			0	0%	0				