Challenges for a compliance officer in the liberalized EU energy market: A case study on the Greek gas transmission system operator

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\textbf{A B S T R A C T}

Under the Third Energy Package Directives 2009/72/EC and 2009/73/EC, European energy networks are subject to unbundling requirements which oblige Member States to ensure the separation of vertically integrated energy companies, resulting in division of the various stages of energy supply (generation, distribution, transmission and supply). This paper addresses the challenges that a regulatory compliance officer faces in line with the Third Package provisions. The focus is on the application of the rules on the unbundling independent transmission operator (ITO) model. The present document highlights the Compliance Officer’s practice in dealing with certain aspects of the rules on unbundling of Transmission System Operators (TSOs), as laid down in the Gas Directives, such as developing an Effective Compliance Monitoring Program, and setting out practical rules to be observed by staff in relation to non-discrimination, transparency and the handling of confidential information. As a case study, this experience from the Greek Gas TSO, i.e. the Hellenic Gas Transmission System Operator (DESFA), is presented.

1. Introduction

Over the past two decades, the European Union has introduced competition (also known as liberalisation) in the European energy market (Andersen et al., 2017; Andersen and Sitter, 2009). Golombek et al. (1995) found that the liberalisation could increase economic welfare in Western Europe by 15–20% in the long run. Nevertheless, there are not many studies focusing on the effects of the liberalisation reforms in the European countries, although more than 20 years passed from the start of the liberalisation (Ciarreta et al., 2016). Although the European Union has legislated in the area of energy policy for many years, the concept of introducing a mandatory and comprehensive European Union energy policy was only approved in the last twenty years.

Energy liberalisation has a positive but modest impact on efficiency gains (Pollitt, 2012). Makridou et al. (2016) also concluded that opening up the electricity market to a competitive energy market contributes to energy efficiency improvement.

In Europe, liberalisation of the electricity and natural gas markets has been facing more scepticism in the recent years. According to the European Commission, these reforms aimed to “increase efficiency in the production, transmission and distribution, while reinforcing security of supply and the competitiveness of the European economy and respecting environmental protection” (Gnansounou, 2008). The liberalisation of national electricity markets contributes to the achievement of a single European energy market. In addition, Jamash and Pollitt (2005) analysed the progress towards this integrated market and some of its main characteristics such as market concentration, investments, security of supply, market design and regulation. Liberalisation of several national energy markets and new long-distance transport options has rapidly improved the world wide integration of natural gas markets (Slabá et al., 2013).

Key contributions point to an effort on the part of the EU to build and shape international markets (Damro, 2012); to draw on the size of its single European Market in order to project its own regulatory regime beyond its borders and to make them international standards (Bradford, 2012); and to export its rules to neighboring states on a voluntary basis (Lavenex, 2014). The EU’s grand strategy on the global scene has been described as a global regulator (Young, 2015), a promoter of free trade spreading norms and building institutions (Manners, 2006), and a normative power that exerts global influence through norms and by example (Duchene, 1972; Laidi, 2008; Manners, 2006; Sjursen, 2006; Whitman, 2011).

It is often said that we live in the age of the regulatory state and the EU is in some ways the ultimate regulatory state (Majone, 1994, 1996). The term regulatory state is used to denote a state (or organization) that
governs by regulation rather than direct intervention (Lodge, 2008; Moran, 2002). Its primary policy tools are the imposition of rules on economic agents that are designed to alter market behavior. This is justified in terms of the need to correct market failures (Begg, 1996; Bohne, 2011).

Generally, the development, operation and exploitation of both the electricity and natural gas industries, i.e. production, transport, distribution and storage systems, are complex and risky activities. Because of these circumstances and because of the economy of scale associated with their technical and spatial characteristics, these systems have been considered as natural monopolies (Train, 1991; Waterson, 1988), in which competition was not feasible (Joskow, 2007). Liberalisation is widely expected to result in efficiency gains. However, it is not clear whether increased competition in one market will benefit the end-users of that type of energy or whether it will be transmitted to the energy markets using the first type of energy as a production input (Jacobsen et al., 2006). Three consecutive legislative packages of measures were adopted between 1996 and 2009, addressing market access, transparency and regulation, consumer protection, supporting interconnection and adequate levels of supply.

In adopting the legislative packages on internal energy markets, European Institutes and bodies (i.e. European Parliament, European Commission, Council of the EU, Directorate Generals etc.) have strongly supported transmission ownership unbundling in the electricity and gas sectors, as the most effective tool to promote investments in infrastructure in a nondiscriminatory way, fair access to the grid for new entrants, and transparency in the market. The EU strategy legally includes solidarity in matters of energy supply and changes to the energy policy within the EU (Aalto, 2014). For this purpose, an EU mechanism has been developed. Fig. 1 depicts the current EU structure regarding the energy sector, taking into consideration the third energy package has been developed. Fig. 1 focuses on the EU natural gas sector and it depicts natural gas - DEPA, b) retailers - EPA, and c) upcoming Distribution Companies - EDA. The current paper investigates the challenges of the EU legislative framework at the TSO level, from the compliance officer’s perspective.

In the meantime, the overall energy and gas market policy objectives remain framed into the particular EU conception of how a well-functioning market can be created in an industry that at least partially exhibits the characteristics of a natural monopoly (Westphal, 2014). The current paper investigates the profound restructuring of the Greek gas market and its governance, driven and shaped by the EU internal market reforms and their respective implementation in Greece. The aim of this work is to highlight potential improvements, measures and recent developments, regarding compliance monitoring, that have been created by the experience of the compliance officer of the Greek gas TSO, which is certified by the National Regulatory Authorities (NRA) as an Independent Transmission Operator, under the ITO model (see paragraph 2.1). This work may assist other electricity and gas TSOs to gain experience and implement methods in complying with the requirements of the ITO model.

The paper is structured as follows: in the following section the general legal framework of the European Union is analysed. Sections 3 and 4, respectively, present the role of the compliance officer and the compliance programme, while Sections 5 and 6 illustrate the case study of the Greek TSO, called DESFA. Section 7 refers to a set of measures taken to facilitate implementation of the Compliance programme, proposed by the Compliance Officer, while Section 8 concludes.

2. General legal framework

Today, the process of restructuring the energy market is still on-going (Correljé, 2016). The developments in the energy market are a continuous process, on a regular basis, new rules, regulations and interventions are announced by the EU.

The first electricity (European Communities, 1996) and gas (European Communities, 1998) directives were adopted in the late 1990s, with the objective of opening up the electricity and gas markets respectively, by gradually introducing competition, highlighting the importance of open access to energy networks. The second electricity (European Communities, 54/2003) and gas (European Communities,
to achieve this, the Third Energy Package required that all electricity or gas pipelines and electricity networks at transmission level from the business of producing or supplying gas or electricity, respectively. In order to comply with the Directive (European Parliament, Reg. 715/2009), unbundling means the separation of the operation of gas and electricity transportation/transmission networks from network operation by introducing the third energy package. For the purposes of the Third Energy Package (under Article 9 of the Directives), unbundling means the separation of the operation of gas pipelines and electricity networks at transmission level from the business of producing or supplying gas or electricity, respectively. In order to achieve this, the Third Energy Package required that all electricity or gas infrastructure that fell within the definition of a TSO must be certified by their National Regulatory Authority (NRA) under one of the following unbundling models, i.e. Ownership Unbundling (OU), Independent System Operator (ISO), and Independent Transmission Operator (ITO). When implementing the unbundling rules of the third energy package, Member States have to decide whether to implement exclusively the Ownership Unbundling model, or leave to the TSO a choice between the different models.

The ownership unbundling model requires the full separation of the operation of gas and electricity transportation/transmission networks and those activities related to production, generation and supply. The ownership unbundling model also puts in place new restrictions in respect of ownership. The operators of gas and electricity transmission networks are no longer permitted to be part of (or affiliated to) a corporate group which is also active in supply, generation or production. The operator of the network will also be obliged to own and control the entire network (Fig. 2). It is worth mentioning that ownership unbundling is advocated by the European Commission and the European Parliament (Talus, 2014).

Under the ISO model the network must be managed by a certified SO (which must perform all the functions of a network operator) although it is permitted for Vertically Integrated Undertakings (VIUs) to maintain ownership of their network assets (Fig. 2). The ISO model requires the ISO to comply with the same unbundling requirements as other network operators and for it to be a completely separate undertaking from the VIU. On this basis, the ISO cannot have a shareholding in any supply or production entities.

Finally, the ITO model allows for TSOs (network Operator & Owner) to remain part of a VIU and those activities related to production, generation and supply under a set of detailed behavioural and structural criteria (Fig. 2). In other words, this model requires such undertakings to comply with additional regulations to ensure the independence of each such activity. The NRAs have to assess compliance of the TSOs with the additional requirements of the ITO model, according to the following guidelines (European Communities, 72/2009):

- complete human, technical, physical and financial resources to operate and develop the transmission grid;
- ITO has to be organised as legal entity;
- Independent Corporate Identity, neutral name, separate premises;
- prohibition in using the company’s vertically integrated internal services;
- ITO must offer services without discrimination;
- guaranteeing independent investment decisions;
- creating a neutral supervisory body which shall be in charge of taking decisions that may have significant impact on the value of the assets of the shareholders within the TSO;
- increased control and monitoring competences of regulatory authorities;
- establishing and implementing a compliance programme setting out measures that prevent the ITO from discriminating against users of the grid;
- appointing a compliance officer with powers to ensure non-discrimination, and;
- introducing requirements for the independence of the Managing Board.

55/2003) directives, which were adopted in June 2003, include unbundling, whereby energy transmission networks have to be run independently from the production and supply side. Following the entry into force of EU directives in 2004 and 2007, consumers are granted with the possibility to freely choose their energy supplier. However, many obstacles remain, with a single European energy market still in progress, trying to reach a satisfactory level of energy liberalisation. It was clear that pan-European markets required pan-European rules (Fig. 2).

The European Commission has made further legislative proposals, including controversial plans to separate supply and production activities from network operation by introducing the third energy package on 19 September 2007. This package consists of two Directives; for electricity (European Communities, 72/2009) and gas (European Communities, 73/2009); and three Regulations, one for electricity network access (European Parliament, Reg. 714/2009), one for gas network access (European Parliament, Reg. 715/2009), and one for the establishment of the Agency for the Cooperation of Energy Regulators - ACERs – and simultaneously the establishment European Network of Systems Operators (ENTSO) (European Parliament, Reg. 713/2009). The first two Directives are organising the unbundling of the TSOs and the contents of the network codes developed by the ENTSO-Electricity and ENTSO-Gas, with the assistance of ACER. Both ENTSOs are in charge of developing a Ten Year Network Development (TYNDP)1 plan, supported by the respective national and regional plans.

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<td>Ownership unbundling</td>
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<td>ITO</td>
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<td>Network Operator</td>
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<td>Network Operator</td>
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Fig. 2. Unbundling in the EU Energy Sector.
One of the most important criteria is the creation of a Compliance programme with nomination of a compliance officer which is subject to approval by the NRA. This paper underlines the role and the challenges of a compliance officer, the importance of the compliance programme and how the compliance officers’ actions are helping a TSO do business more efficiently and profitably.

The role of the Compliance Officer and the Compliance Function more generally is subject to ongoing and significant change, due to the fast-growing regulatory landscape. This paper explores some key areas of change, looking specifically at:

- the role of the Compliance Officer as part of the overall senior management team of the firm and the need to satisfy multiple demands from different stakeholders; and
- how the Compliance Officers can respond to the changing environment and how to develop tools and techniques for compliance issues.

### 2.2. Current status of European TSOs and the prevailing model in the gas sector

Having completed an in-depth investigation, several differences were observed in how Member States have transposed the third energy package Directives. In some EU Member States, only the OU model has been transposed into national law, whereas in other EU Member States several models have been implemented. Based on the electricity and gas TSO certifications looked at by the European Commission (data till 26.01.2015), 109 TSOs in Europe have been certified as compliant with one of the Third Package’s unbundling models (Table 1), indicating that there has been a good level of cooperation between NRAs and the European Commission.

It is obvious that there are differences between the certification of electricity and gas TSOs. For instance, under the OU model, 69% of electricity TSOs have been certified compared to only 40% of gas TSOs. With 45%, the ITO model is the most used model, under which gas TSOs have been certified.

This paper focuses on the ITO model which was raised up by the coalition between two of the largest EU Member States, i.e. France (by the companies EDF and GDF) and Germany (by the companies E.ON and RWE), in order to retain ownership of their gas and electricity grids subjected to external supervision. The ITO model allows integrated companies to retain ownership of their gas and electricity grids. However, companies would have to give up the daily management of the grids to an independent transmission operator, in line with the Third Package provisions, ensuring an independent operation of the transmission network (see paragraph 2.1).

In application of the ITO model review, the European Commission found in its report (European Commission, 2014) that most of the requirements related to the ITO model work in practice, and are sufficient and adequate to ensure effective separation of the transmission business from generation and supply activities in the day-to-day business. Thus, the European Commission did not see so far a need to propose changes to the ITO unbundling model, but mainly to reinforce its monitoring.

The present document highlights the compliance officer’s practice in dealing with certain aspects of the rules on unbundling of TSOs, as laid down in the Gas Directives. The focus is on the application of the rules on the ITO model and its monitoring.

### 2.3. The Greek TSO – DESFA

A Member State can decide to apply the rules for an ITO model, if the transmission system belonged to a VIU when the 3rd Package entered into force. The Hellenic Gas Transmission System Operator S.A. (Greek initials: DESFA S.A.) is an Incorporated Company, 100% subsidiary company of the Public Gas Corporation S.A. (DEPA). The Hellenic Republic Asset Development Fund (HRADF) holds 65% of DEPA, with the remaining percentage held by Hellenic Petroleum S.A. (HELPE).

DESFA, the owner and operator of the NNGS, consists of the National Natural Gas Transmission System (NNGTS) and the Liquefied Natural Gas (LNG) Station on the island of Revithoussa. Under these terms, DESFA has the sole responsibility and authority for the operation, maintenance, development and exploitation of the NNGS, functioning under the ITO model standards and in conformity with Directive 2009/73 and law 4001/2011, as applicable.

In the context of the restructuring plan for Greece, on 9 December 2013, RAE was officially informed by DESFA of the imminent change in control. In January 2014, DESFA submitted to RAE its application for certification under the ITO model, which was later complemented with additional information, justifying its compliance with the ITO provisions and with the criteria related to Article 65 of the Greek Energy Law 4001/2011.

RAE has analysed whether and to what extent DESFA complies with the unbundling rules of the ITO-model, as well as with the criteria related to the certification of TSOs controlled by a person from a third country, as laid down in the Greek legislation transposing the Gas Directive. In its preliminary decision, RAE concludes that DESFA complies with these requirements and that certification can thus be granted. On this basis, RAE submitted its preliminary decision on 29 May 2014 to the Commission requesting an opinion.

### 3. The role of the compliance officer

The compliance officer position was initially appointed by the European Commission at the third energy package in order to exclude discrimination against competitors. The existence of a compliance officer is a prerequisite under the ITO model requirements, assigned to monitor a specific programme of relevant measures against market abuse. According to third energy package requirements, the Compliance Officer oversees the Corporate Compliance Programme, functioning as an independent and objective body that reviews and evaluates compliance issues/concerns within the organization, and finally reports to NRA.

In general, compliance officers are responsible for the oversight of the firm’s compliance with applicable rules and regulations. To that end, they devise and maintain appropriate systems and controls for the firm as a whole and advise management and employers on compliance issues. Moreover, a Compliance officer is to be appointed by the Supervisory body, subject to approval by the NRA. The Compliance officer is specifically in charge of ensuring observance of the compliance programme and has a general role as regards guaranteeing that the ITO is independent in practice and does not pursue discriminatory conducts. The compliance programme and the compliance officer are subject to the detailed rules of Article 21 of the Electricity and Gas Directives, and to the same independence rules as the management of the ITO. Its tasks include monitoring the implementation of the Compliance programme, reporting annually to the NRA and issuing recommendations regarding its implementation to the Supervisory body. It also reports to the NRA on commercial and financial relations.

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Table 1


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<th></th>
<th>OU</th>
<th>ISO</th>
<th>ITO</th>
<th>Other</th>
<th>Total</th>
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<td>3</td>
<td>6</td>
<td>7</td>
<td>51</td>
</tr>
<tr>
<td>Gas</td>
<td>23</td>
<td>6</td>
<td>26</td>
<td>3</td>
<td>58</td>
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2 The NNGS includes, also, the LNG facility, while the NNGTS does not include the LNG facility. (NNGS: National Natural Gas System, NNGTS: National Natural Gas Transmission System).
between the VIU and the TSO. The Compliance officer can attend all meetings of the management or administrative bodies of the TSO, as well as those of the Supervisory body and the General Assembly and it shall have access to all relevant data. Finally, an annual report is submitted by the Compliance officer as external source of information for NRAs, which is considered as a very important tool that provides a complete insight into the company’s activity, structure, and functioning.

As at most large companies, the greatest compliance challenges come from increased regulations and globalization. Overall, there is no doubt that in many areas, risks are increasing due to a greater number of complex regulations. As a result, compliance officers have been given an increasing number of challenges including how to:

- Develop, initiate, maintain, and revise policies and procedures for the general operation of the Compliance Programme and its related activities to prevent illegal, unethical, or improper conduct.
- Manage day-to-day operation of the Compliance Programme.
- Develop and periodically review and update Standards of Conduct to ensure continuing currency and relevance in providing guidance to management and employees.
- Collaborate with other departments (e.g., Risk Management, Internal Audit, Employee Services, etc.) to direct compliance issues to appropriate existing channels for investigation and resolution. Consults with the Corporate attorney as needed to resolve difficult legal compliance issues.
- Monitor the performance of the Compliance Programme and relates activities on a continuing basis, taking appropriate steps to improve its effectiveness.
- Identify potential areas of compliance vulnerability and risk; develop/implement corrective action plans for resolution of problematic issues, and provide general guidance on how to avoid or deal with similar situations in the future.
- Work with the Human Resources Department and others as appropriate to develop an effective compliance training program, including appropriate introductory training for new employees as well as ongoing training for all employees and managers.

4. Compliance Programme

Article 21(1) of the Gas Directive requires the TSO to establish and implement a compliance programme which sets out the measures taken in order to ensure that discriminatory conduct is excluded, and ensure that the compliance with that programme is adequately monitored. The compliance programme shall set out the specific obligations of employees to meet those objectives. It shall be subject to approval by the regulatory authority. Without prejudice to the authority of the national regulator, compliance with the program shall be independently monitored by the compliance officer.

The compliance programme contains rules of conduct which have to be respected by staff in order to exclude discrimination. Such rules relate, for example, to the obligation to preserve the confidentiality of commercially sensitive and commercially advantageous information (Article 16 of the Gas Directive). The compliance programme may lay down in detail the kind of information that is to be considered confidential in this sense and how the information should be treated. It may also refer to the sanctions imposed under national legislation in case of non-respect of confidentiality rules. Another set of rules which, for example, can form part of a compliance programme relates to the behavior of staff vis-à-vis network customers. Employees of a TSO must refrain from any reference to the related supply business in their contacts with customers of the TSO.

If the programme is to be successful, its effectiveness needs to be regularly monitored. This is essential not only as a means of ensuring that the programme is working properly but also to enable the identification of those areas that present the highest risks of non-compliance. The evaluation process must be carried out in a transparent manner, and may indicate to employees that their conduct is being reviewed against the terms of the compliance programme on a continuous basis. The compliance officer must on a yearly basis submit a report to the national regulatory authority, setting out all the measures taken. This report must be published on the TSO’s website.

5. DESFA’s Compliance programme and audit methodology

DESFA, as an Independent Transmission Operator, establishes and implements a Compliance programme, according to law 4001/2011, as applicable. This program sets out measures adopted by the Company to ensure its independence, eliminate discriminatory behavior and enforce appropriate policies to monitor the Company’s managing bodies and employees’ compliance to the current Compliance programme.

More specifically, checkpoints of the Company’s basic principles of operation are described by the Compliance programme, in conformity with the proposed methodology:

- Sampling checks: individual data samplings are taken
- Thorough checks on the total number of cases that are related to each checkpoint
- Meetings and additional interviews with designated personnel, especially in cases of deviation from the demands of the Compliance programme and need for further clarifications

Subsequently, annual scheduled audits for the proper implementation of the Compliance programme commence annually in November and are completed by the end of February each year, in accordance with the principles of international auditing standards. These audits aimed to evaluate the Operator’s compliance level through observation and documentation in a systematic, independent and evident way (e.g. files, statements or other information relevant to the audit criteria). In addition, the above mentioned audits were conducted by the Compliance Officer, taking into consideration standards’ principles (International Standard ISO 19011, 2011) and best practices, as follows:

- Ethical conduct: The foundation of professionalism (trust, integrity, confidentiality, and discretion are essential to auditing)
- Fair presentation: The obligation to report truthfully and accurately (audit findings, audit conclusions and audit reports reflect truthfully and accurately the audit activities)
- Due professional care: The application of diligence and judgement in auditing (Auditors exercise care in accordance with the importance and accurately the audit activities)
- Independence: The basis for the impartiality of the audit and objectivity of the audit conclusions
- Evidence-based approach: The rational method for reaching reliable and reproducible audit conclusions in a systematic audit process

Audits take place in the auditees’ offices and include the following phases: 1. inaugural meeting, 2. on-site audit, 3. interview, 4. sampling, 5. documentation, and 6. final meeting and audit completion.

The four pillars of ensuring basic principles of operation, based on which audits were designed and implemented, according to the acronym IDEA (Amoiralis, 2016), were the following:

- Independence of DESFA from the VIU,
- Data confidentiality,
- Equal user treatment,
- Adoption of transparent procedures.

6. DESFA fundamental principles of operation via third energy package and Compliance Programme

DESFA, as founding member of the European Network of
Transmission System Operators for Gas (ENTSOG) and as ITO of the NNGS, has a decisive role in the gas market, ensuring the operation of the internal gas market in the European Union, based on European and National regulatory requirements. An essential prerequisite is that DESFA shall remain independent from the VIU or any other related undertaking during the decision making process, while ensuring impartiality and transparency in performing its duties, and preserving strict principles to ensure free competition.

These prerequisites are significant regulatory demand for DESFA and their attainment is a primary concern for the company and for the compliance officer. It is therefore crucial every operating unit of the Company to comply with the Gas Directive provisions and the compliance officer's suggestions, achieving the best possible level of compliance. Based on the EU regulatory framework, four basic principles of operation have been promoted, not only by the third energy package, but also by DESFA’s compliance officer, according to the four pillars by the acronym IDEA, as described in the previous section.


6.1. Independence of the company

To begin with, DESFA S.A. was certified under RAE's decision (Government Gazette Β 2572/26.9.2014) as a natural gas ITO company. Under these conditions, DESFA has been certified on the adequacy of its resources (infrastructure, human capital and financial resources), performing its duties on transmission of natural gas, as well as its independence from the VIU and its affiliated undertakings.

Regarding the independence of Management and Administrative Bodies, the Company is managed by a Board of Directors, assigned and revoked by decision of the Supervisory Board, and approved by RAE, in conformity with provisions of Law 4001/2011, as applicable, and notwithstanding the provisions of Law 2190/1920. Furthermore, in accordance with Law 4001/2011, as applicable, and notwithstanding provisions of Law 2190/1920, a Supervisory Board is formed under RAE's approval, whose responsibilities are further described in the Company's Articles of Association (corporate charter). Moreover, in conformity with relevant provisions of Law 4001/2011, the Compliance Officer is appointed under the decision of the Supervisory Board and RAE's approval as an independent institutional body referring directly to RAE. The Members of the Board of Directors, the members of the Supervisory Board, as well as the Compliance Officer of the Company have all been appointed under the requirements, as set by the Law and the Company’s Articles of Association.

Concerning financial independence, the Compliance programme provides terms and conditions for the financial independence of the following: preparation and approval of the company’s Business Plan, preparation and adoption of the Action Plan and Annual Budget, appointment of Chartered Accountants and Auditors to issue the tax compliance report, approval of the company's annual financial statements, the amount of dividends distributed to shareholders, remuneration of the Members of the Board of Directors and the Supervisory Board and the management report of the Company's Board of Directors, approval for the loans conducted by the company and further proposals for increasing share capital.

Apart from financial independence, operational independence refers, on one hand, to human, technical or any other kind of resources that are essential for the company to effectively perform its duties and, on the other hand, to a series of actions prohibiting the use and/or provision of services to the VIU, ensuring thus confidentiality on commercially sensitive and classified information.

At the same time, it was ascertained that DESFA does not share common hardware and software systems with any part of the VIU or its affiliated undertakings and does not cooperate with the same advisors or external contractors for hardware, software and security systems. Furthermore, within the framework of Non-Regulatory Services, DESFA is able to sign relevant contracts with the VIU and its affiliated undertakings based on the strict requirements of the law. Last but not least, independence of the corporate identity is crucial. DESFA receives and implements appropriate measures to ensure its independence from the VIU or its affiliated undertakings.

6.2. Data confidentiality

To ensure that the standards and procedures of the Compliance Programme are effectively communicated, the TSO provides Company Personnel, as applicable, and, where feasible and appropriate, in-house instructors with the following educational information and training:

1. Compliance Programme presentation to all TSO Personnel and to appropriate agents who may furnish services on the Company’s behalf that are directly related to the policies that are covered by the Compliance Programme.

2. General annual compliance training summarizing the Company's Compliance Programme, regulatory obligations and legal operational framework of DESFA.

Documents and adequate records of such training are kept by the Compliance Officer. It is worth mentioning that the competent organizational unit carries out distance learning programmes and educational actions for awareness, information and comprehension of the company's entire personnel. The competent organizational unit prepares a relevant annual report, including performance indexes of the cooperated manpower on relevant issues.

Moreover, DESFA ensures security for its IT systems to safeguard confidentiality, integrity and availability of the business information, using the best available technology and through international best practices, with the aid of specialized devices, while protecting the Company's IT systems and corporate intranet from Internet threats. The audit's results reports that the competent organizational unit applies advanced methods, for identification and treatment of IT systems vulnerabilities, so as to ensure their effective protection and security. For optimal monitoring of the IT systems, the Operator uses a specialized software platform for continuous monitoring and assessment of the IT security. In this regard, the Compliance Officer proposes the creation of a reporting database, which will include incidents and document the security situation of existing IT systems by external rating agencies, and enable adequate information, on a regular basis, to be used by other auditors.

6.3. Equal User Treatment

Equal User Treatment means that DESFA has developed all the appropriate policies and procedures for access conditions to the National Natural Gas Transmission System.

In particular, for Information Technology (IT) Systems, DESFA has undertaken a series of measures concerning transparency issues and equal treatment of network users regarding the amount of information demanded to be published and in conformity with the regulatory and legislative framework. The Operator has taken all necessary measures for the proper application and publication of certain information on its official corporate website. Emphasis is given on how to better promote and manage information, as well as to comply with the strict security measures concerning the company's information systems.

Guidelines and ideas for the best possible implementation of the regulatory framework and Compliance issues on the new corporate
website have been proposed by the Compliance Officer, in collaboration with the Company. In addition, the Company has developed information technology systems and electronic means of communication to provide sufficient data to network users and simplify transactions, such as gas capacity contracts and gas capacity transmission rights.

The Company's Compliance programme provides checkpoints on equal treatment of NNUGS Users and NNGS Development regarding a. the Ten Year Network Development Plan, b. list of Small Scale LNG Projects, and c. Third-Party Access to the NNUGS. In particular, according to the provisions of article 92 of the Network Code DESFA establishes and set in public consultation Ten Year Network Development Plan, taking into consideration the outcomes of the NNGS Development Study as well as a variety of different parameters such as a) elements of the current and the estimated supply and demand of natural gas, b) the fulfillment of public service obligations and the assurance of natural gas supply in a credible and cost-effective way, c) the improvement of the NNGS efficiency and the ensuring of its orderly operation aiming at the prevention of congestions, emergencies and refusal of access, d) the supply of new areas with natural gas and the ensuring of new Users' potential access, e) the protection of the environment, f) the Ten Years Development Plan in a European level in accordance with the provisions of element (b) of paragraph 3 of Article 8 and of paragraph 1 of Article 12 of Regulation 715/2009, g) the sustainability of the works included in the Plan and their potential financing outside the framework of the Development Plan. Furthermore, according to article 95 of NNUGS Administration Code, as valid, DESFA publishes a List of Small Projects which includes a) small Projects which have been included in the Ten Year Network Development Plan, and b) small Projects which have not been included in the Ten Year Network Development Plan and comply with the requirements of art. 94 par. 5 of NNUGS Administration Code.

The Compliance programme and the Network Code provide terms and conditions for gas Transmission Services, in line with the IDEA principles. In particular, detailed and consistent procedures for the Provision of Gas Transmission Services as well as the LNG Facility Services are included in the NNGS Network Code.

The framework of Non-Regulatory Services grants DESFA with the ability to conduct non-regulatory services' contacts with clients that wish to benefit from such services. A detailed list of these services is available on the Operator's official webpage. All services are provided under the same terms and conditions, with no discrimination, to all Network Users through standardized contract agreements. The standardized contract agreements, the methodology for calculating the tariff for the service contract agreement, as well as the specific non-regulatory services provided, are all available on the Operator's official website. Attention is required for the agreements with the VIU and its affiliated undertakings (article 63B par. 1 case c of Law 4001/2011).

6.4. Adoption of transparent procedures

Regarding financial transparency, the Compliance programme provides terms and conditions for distinct budget allocation of the following: (i) Regulated Asset Base and depreciation of fixed assets for every Basic Activity, (ii) operational cost of non-regulatory services, and (iii) DESFA's regulatory operational expenses. The aforementioned checkpoints were ascertained so that the Company has taken all necessary measures for the financial transparency and discrete distribution of invoice per requested service.

Terms and procedures related to purchasing gas by DESFA have been defined through the Annual Planning for Load Balancing each year, as well as the Operator's proposal regarding NNGS capacity, in accordance with Network Code and Compliance programme requirements, followed by publication of the approved annual planning on load balancing on the Operators' corporate webpage.

The procedure for conducting annual contracts regarding balancing gas supply and operational gas supply, as well as the Annual Operational Gas Compensation Study, are described by the compliance programme, in line with the Network Code provisions.

7. Compliance Officer's Proposals, adopted for the proper implementation of the Compliance programme

The present section refers to a set of measures taken to facilitate implementation of the Compliance programme, proposed by the Compliance Officer. The aim is to develop and implement a series of actions, in order to raise the sense of corporate culture regarding compliance issues.

7.1. DESFA Compliance Guide

A Compliance Guide was developed under the title “Guide to I.D.E.A. for DESFA S.A.” (Amoiralis, 2016), which was distributed to the Company's employees in February 2015. At present, the first revised edition was completed, including updated material based on the regulatory framework and the accumulated experience.

The aim for the acronym IDEA is to present a modern and updated corporate Compliance Guide aiming to define principles that ought to be followed by all administrative bodies and the Company's personnel during the performance of their duties, ensuring DESFA's compliance with its obligations under the ITO model.

7.2. Channels of communications

A communication channel among the Compliance Officer and the Company's employees, as well as any User of the natural gas transmission system, was introduced. The objective is to provide the ability to submit to the Compliance Officer incidents of non-compliance issues that are related to unethical or illegal activities (such as conflict of interest, leak of commercially sensitive information, non-equal treatment to Network Users, non-compliance with the Compliance programme / Corporate Policies) and at the same time to protect the anonymity of the person disclosing this information. The existing channels of communication are achieved through four different ways:

- electronic form of submission via the corporate website (www.desfa.gr), tailor-made to compliance issues
- mail
- e-mail to the address: complianceofficer@desfa.gr
- fax

Furthermore, a special section, named “Compliance Officer”, was introduced to the corporate information journal called “Pipeline Communications”, aiming to inform Management bodies, DESFA employees and any third party in the natural gas market on Compliance issues. The role of the compliance officer consists, inter alia, of providing assistance and guidance, in addition to the monitoring procedures, and to help the authorized provider's staff apply the rules of conduct.

7.3. Platform e-idea

DESFA's Compliance Officer, in cooperation with the Department of Safety, Management Systems, and Compliance programme, developed and put into operation the new tailor-made electronic application of the Compliance programme. This application, called e-idea (electronic idea), was developed within a Microsoft Sharepoint environment. It is emphasized that the pursuant monitoring system provides a safe information storage and organization domain for all information deriving from the Compliance programme and it is exclusively used by authorized personnel, according to the Program provisions. In a nutshell, the platform e-idea enables users to manage, track, and report on any policies, procedures, and other business critical documents or information.
related to the compliance programme of the company and regulatory issues.

7.4. Upgrade of the corporate website of DESFA

Following the European and National legislation and taking into consideration the strict regulating framework, under which the Operator functions, it was deemed appropriate to establish a separate section on the official corporate website, under the title “Regulatory framework/Compliance”, aiming to inform DESFA’s employees and third parties on the subject of natural gas. This restructured section has an informative character and includes significant documentation on Compliance issues, as for example, the Compliance programme, European Directives, National Legislation, Codes and Annual Compliance Reports. Through this section, anyone can submit an anonymous, or not, notification via the electronic form on compliance issues.

7.5. Revision of Compliance programme

The third energy package provisions do not clearly argue on the compliance programmes’ regular review and updating procedure. Based on the authors’ experience, compliance requires an ongoing attention, and the compliance programme needs to take into consideration a sequence of different parameters such as revised edition of the NNGS Network Code, updated Company’s Organizational Chart, previous experience, new requirements of the fast growing legal framework, etc. Overall, revising the Compliance Programme is vital, as necessary, to reflect changes in the Company’s policies and procedures or applicable laws and regulations.

The compliance officer’s duties should include the revision and expansion of the Compliance Programme after the initial years of implementation in collaboration with either the NRA or the gas TSO. In both cases, the compliance programme shall be subject to approval by the regulatory authority.

The revised compliance programme must be actively implemented and promoted through specific policies and procedures. Such policies may consist, among other things, of the following elements:

- active, regular and visible support of the management for the programme, for example through a personal message to the staff stating its commitment to the programme
- clear statements that disciplinary action will be taken against staff violating the compliance rules
- written commitment of staff to the programme by signing up to the compliance programme
- training on compliance on a regular basis and notably as part of the induction programme for new staff

8. Conclusions

Today, the process of restructuring the energy markets at European and National levels is still going on. The third energy package of the European Union was analysed focusing on the gas energy sector. Today, the process of restructuring the energy market is still ongoing, however, the developments in the energy markets are a continuous process, as on a regular basis, new rules, regulations and interventions are announced by the EU.

In this paper, the Independent Transmission Operator (ITO) model, selected by the majority of the EU gas TSOs was investigated in more detail. DESFA, as the Greek gas TSO operating under the ITO model, functions successfully in adopting and implementing the ongoing legal energy framework. In particular, the requirements of the ITO model were examined.

The position of the Regulatory Compliance Officers faces a number of significant challenges related to the jurisdictions in which a TSO operates, according to the third energy package directives. These include challenges around developing, operating and monitoring the Compliance Programme, as well as helping to develop the policies and procedures that are covered by the Compliance Programme. Focusing on DESFA as a case study, it was proved that the ongoing engagement of the Company’s Compliance Officer, which entails receiving information on Energy Trends, preventing, detecting and responding to activities that potentially violate the operation of the Company’s institutional framework, has improved the personnel’s corporate culture towards compliance, in line with the ITO model.

Compliance officer has designed and updated internal policies to mitigate the risk of the company breaking laws and regulations, and lead internal audits of procedures. Compliance tools have been developed setting out the practical rules to be observed by staff in relation to non-discrimination, transparency and the handling of confidential information. Key elements for reaching better level of compliance were firstly the development of the e-idea platform which is a significant monitoring tool of the compliance programme and requirements, ensuring that an activity meets its objectives, and secondly the creation of the Compliance Guide which does not only simplify the complicated legal framework, but also gives examples through a FAQ section, assisting the personnel to raise their compliance awareness. A compliance report is established annually and the results are published on the official website of the TSO.

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Appendix A. Supplementary material

Supplementary data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.enpol.2017.08.011.

References


