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**“Transaction Agreements in the LNG
Sector: Legal Aspects”**

Thomas Tsiouplis

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Student Name: Thomas Tsiouplis
SID: 1108150019
Supervisor: Prof. Dr Athanassios Kaissis

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Abstract

This dissertation was written as part of the MSc in Energy Law, Business, Regulation & Policy at the International Hellenic University.

This dissertation is scrutinizing the key legal commercial components of the LNG transactions via the analysis of the possible terms, which may exist in the context in the LNG Sale and Purchase Agreement, the LNG trading agreements with attention on the main model charterparties, the “ShellLNGTime1” and the “GIIGNL charterparty”, and the Model Agreement for the use of the LNG Facility of Revithoussa located in the region of Greece. In parallel, the analysis continued on the non-contractual liabilities that may occur by the environmental behavior of the parties to those agreements. In the end matters concerning the resolution of disputes deriving from the execution of the above contracts have been dully scrutinized.

More particular, this paper investigated the necessity of the analytical drafting of the LNG Sale and Purchase Agreements and their interfacing with the charterparties as those were analyzed in the respective chapter. The chapter concerning the shipping agreements, deepened on the key contractual terms of the above mentioned model charterparties. The next chapter focused on the analysis of the Greek, EU and International legal framework concerning the non-contractual liability deriving from the environmental pollution and downgrading and the last chapter focused mainly on the most appropriate way of solving possible disputes between the parties.

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Thomas

Tsiouplis

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Preface

The future of the LNG sector in the next years will be determined by the increased in its demand as it is an environmental friendly fossil fuel. The increase in the LNG trading contracts, because of the emergence of the spot-market, demands an analysis of those contracts, in order to achieve a critical and efficient acquaintance with their relative issues.

The scope of this dissertation is to analyze the essence of the LNG sales and transportation contracts, which are the core contracts of the LNG transactions, and their key legal commercial components concerning the drafting, negotiating and interpretation of the contracts, via the analysis of the possible contractual terms by taking into account the possible contradictions that may occur due to non-contractual liabilities of the parties to those transactions and by clarifying issues that concern the respective dispute resolution.

The fact that the trading issues in the LNG sector have largely been harmonized because of the increasing in the globalized trade, it is appropriate for this analysis to focus more on the commercial contracts rather than regulatory ones. That is to say, the increase of the regulatory provisions that have been incorporated into commercial agreements has as a result that the commercial contracts are used to implement public, private and hybrid transnational regimes and enhancing the links along supply chains. So for this paper it more important to analyze the commercial contracts as they could incorporate transnational regulatory issues directly or indirectly because in this way there can be achieved a more thorough understanding of the globalized LNG supply and chain.

Last, this dissertation was conducted in a way to point out the need for a common LNG regulated market, where transnational restrictions and obstacles should be eliminated by certain, in every case, domestic compliance.

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1. Introduction

The world's primary energy demand is increasing lately at an enormous rate. This has promoted extensive research on finding and developing new energy sources. Although unconventional energy sources such as renewables will help in changing the world's focus on fossil fuels, it will still take a few decades until they will dominate the energy scene and contribute substantially in the covering of the increased energy demand. Currently, the fossil fuels account for more than 85% of the total energy needs of the world¹.

Of these, natural gas is considered as the most significant energy fuel for the planet's present and future as it allows the gradual transition from a carbon past to a no-carbon future, because it is thought to be the most environmental friendly fossil fuel². Its transportation to the demand sites poses a challenge, because of its gaseous state which requires transportation mainly through pipelines between the limited supply countries and their neighbors. The need to commercialize the long distanced gas deposits has caused the emergence of Liquefied Natural Gas ("LNG"), which allows the carriage of natural gas through the sea. LNG is a result of technological advances and commercial maturity and has become a more attractive and economical energy option lately³.

The increase in LNG-trade can provide the missing link for the energy market integration across regions⁴. It can also contribute to the diversification of the energy supplies since it can be transferred from really far away via tankers etc. and it limits the countries' dependence on oil and coal, and it strengthens the competitiveness of the regions that exploit and make use of it.

¹ R. Khalilpour / I. Karimi, Selection of Liquefied Natural Gas (LNG) Contracts for Minimizing Procurement Cost, 2011, I and EC Research (pp. 10298–10312).

² (2016) <http://naturalgas.org/environment/naturalgas/>

³ M. Tusiani / G. Shearer, LNG a non Technical Guide, 2008, PennWell, Tulsa, Oklahoma, USA (pp.3).

⁴ A. Neumann, Linking Natural Gas Markets — Is LNG Doing Its Job?, 2008, DIW Berlin, Berlin, Germany.

As a result the maturation of LNG market, with the interaction of the long term contracts and the spot market⁵ is pointing out the need for further academic research and deepening in the legal aspects of the LNG sector and more specifically in the existing LNG sales and transportation agreements, which may be found in contracts of several forms. For the interpretation of those agreements, special attention should be given on the International Legislation, on English law, due to the fact that the trading of LNG is an internationalized activity and demands relevant tools of approximation. As Greece is thought to become the gas crossroad of the Mediterranean Sea, also a particular application of the Greek Laws should occur.

The commercial cornerstones of the LNG trading scheme are the sale and purchase agreement ("SPA"), particular transportation agreements and specific agreements concerning the use of LNG facilities. Those agreements may incorporate provisions concerning the pricing, volume commitments, shipping arrangements, payment terms, governing law, scheduling, delivery point, quantity, quality, force majeure provisions etc⁶.

To an LNG trading agreement, there may occur non-contractual liabilities of the parties, which may or may not be dully analyzed in the agreement. Last, as LNG trading is an activity with many projections, dispute resolution is a fact that must be taken into account by the market players.

⁵ (2016) <http://www.forbes.com/sites/judeclemente/2016/05/01/liquefied-natural-gas-needs-both-spot-markets-and-oil-indexation/#109b1c014c82>

⁶ *M. Tusiani / G. Shearer*, LNG a non Technical Guide, 2008, PennWell, Tulsa, Oklahoma, USA (pp. 319).

2. The Sale of LNG

2.1 Contract Forms

As mentioned above, an SPA is a definitive contract between a seller and a buyer for the sale and purchase of a quantity of LNG for delivery during a specified period at a determined price⁷ and it can be found in various forms. The SPA could be, inter alia, a term agreement, which probably will often be mentioned as a mid-term or a long-term representing in each case a specific contract period, where 1-5 years period correspond to the first case and a period up to 50 years to the second, a firm and an option agreement which are also contract forms in which an SPA may be found. In the firm agreement, the seller must supply LNG against the buyer's declared requirements and will be liable for shortfall for its failure to deliver and, in contrast, the option agreement allows some latitude to the seller, who has an optional right to deliver or not LNG⁸.

The contractual terms of an SPA may be agreed individually for a particular quantity of LNG but they can also be entered into a Master Sales Agreement on whereby, the seller and the buyer will enter into an overall agreement, usually without take-or-pay or take-and-pay commitments, setting out the general terms according to which they will transact, and when they wish to do so then they will probably draft an ancillary transaction schedule, often called "Confirmation Notice", which will probably apply the general terms of the MSA and containing further transaction specific items, such as the price, delivery point, etc.. Such contracts are the NBP97 Contract of the UK, the ISDA (International Swaps and Derivatives Association model form for the trading of derivative interests with a specific gas annex attached) and the EFET (European Federation of Energy Traders) master agreements, the updated in 2009 LNG master trading agreement of the AIPN (Association of International Petroleum Negotiations), the GIIGNL (International Group of Liquefied Natural Gas Importers) model LNG trading master agreement

⁷ *Petroleum Economist Limited*, LNG a glossary of terms, 2004, Nestor House, Playhouse Yard, London (pp. 64).

⁸ *P. Roberts*, Gas and LNG Sales and Transportation Agreements Principles and Practice, 2014, Sweet & Maxwell, London, UK (pp. 105-106).

under the status of FOB (Free-on-Board) and DES (Delivered-ex-Ship) shipping etc.⁹. Of course, the FOB and the DES forms are mainly kinds of contracts that consider the LNG transportation, despite the fact that some of their projections might be applied to the LNG sales.

Also, an SPA might be considered as a Depletion Based or a Supply Based contract. In the first case, the seller dedicates a specific nominated gas field to the buyer all or at least a significant defined percentage of the reserves¹⁰. This contract tool can be very useful in the case that a seller wishes to develop a gas field and also needs to secure its investment. In the Supply-Based contract, the seller agrees to deliver to the buyer quantities of LNG over a specific period, assuming that the seller has access to multiple reserves¹¹. Last, trades of LNG can be made notionally without physical delivery of gas, in the spot market where the trading of LNG takes place with the contracts of sale and purchase of LNG entitlements, which in many cases could be considered, in Stock Exchange terms, future, forward and option contracts etc. (“Trading Agreements”)¹².

2.2 Main Characteristics of the LNG SPA

In drafting the SPA the parties to such kind of agreement will each seek to ensure the best terms that they wish to, securing in the meanwhile that the features of the written agreement will be interpreted in most of the cases *stricto sensu*, in order to avoid the possible future disputes to cause possible difficulties regarding the interpretation of the contract's context. So, elements contained in the SPA could be the following.

2.2.1 Parties

While it is axiomatic that there has to be a seller and buyer in an LNG sale and purchase agreement, the identity of the seller and the buyer, the possible

⁹ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 106).

¹⁰ (2016) <http://www.lexology.com/library/detail.aspx?g=f2ab95b4-397b-4270-a031-003cd16fec5b>

¹¹ E. Azaino, *Natural Gas Contracts: Do Take or Pay Clauses Fall Foul of the Rule against Penalties?*, 2013, *CEPMLP Annual Review - CAR Volume*, Dundee, UK (pp. 1-19).

¹² (2017)<http://dictionary.cambridge.org/dictionary/english/energy-derivatives>

modifications concerning their status and the particulars of the supply sources and destination markets are crucial in determining the individual structure of an SPA and whether is thought commercially viable. So the seller might be a state owned entity, which is entitled to sell produced LNG or it might be a private company holding a concession to do so and generally it might be an upstream gas developer, or an 'aggregator'. The buyer could be a large utility or industrial company, buying LNG primarily for its own uses, a marketing company or natural gas aggregator, buying LNG to on-sell into a given market, or even as the spot market for LNG evolves, it could be a trading company buying LNG to arbitrage the LNG to other buyers based on flexible market conditions¹³. The situation, regarding the persons involved in the SPA becomes more complex where multiple entities directly or indirectly constitute a party in the SPA, which for example is likely in cases where joint-ventures are involved in the development of an LNG project¹⁴.

In every case, the technical competence and the creditworthiness of the seller to bear its performance and financial obligations under an SPA, and the creditworthiness of the buyer to bear the very significant financial obligations associated with performance and payment under a long-term LNG sale and purchase agreement, are of critical importance. The financial institutions providing the project finance will carefully examine the creditworthiness and technical capabilities of the entire chain of participants, from the upstream gas supplier to the terminal developer and finally the LNG buyer. It is clear that if any participant in the chain is an undercapitalised entity, the financial institutions are likely to require security. A guarantor may be required to be an additional party to a long-term LNG SPA, or a separate guarantee agreement might also be required¹⁵.

As mentioned, in an SPA there is a need to examine the situation in which a party might transfer its contractual position to a third party, whether directly or

¹³ *S. Farmer (Fulbright & Jaworski LLP) / H. Sullivan (Conoco Phillips)*, LNG sale and purchase agreements -derived from- Liquefied Natural Gas: The Law and Business of LNG, 2012, Globe Business Publishing, London, UK (pp. 26).

¹⁴ *P. Roberts*, Gas and LNG Sales and Transportation Agreements Principles and Practice, 2014, Sweet & Maxwell, London, UK (pp. 116).

¹⁵ *S. Farmer (Fulbright & Jaworski LLP) / H. Sullivan (Conoco Phillips)*, LNG sale and purchase agreements -derived from- Liquefied Natural Gas: The Law and Business of LNG, 2012, Globe Business Publishing, London, UK (pp. 26-27).

indirectly and temporarily or permanently, which can become really usual if the LNG market continuous to become more mature and the parties may wish to divert cargoes for better settlement of other commercial obligations they may have.

Under the Greek Laws, the transfer of rights and obligations in an SPA, while is still valid, can be accomplished through the assignment of rights which is the contract, where the lender transfers his claim to a third party according to the article 455 of the Greek Civil Code and the novation of the contractual obligation as a whole, which is the agreement where transfer of the status of the contractual subject takes place to a third party¹⁶. In the first case the object of the assignment is the claim itself, which incurs that the other party will retain its opposite claim towards the transferring party¹⁷. According to the wording of the article 455 of the Greek Civil Code, there is no need to notify the debtor for that contract, while in the case of novation of rights, the contract can be thought as a combination of the assignment of rights and the deprivative assumption of debt¹⁸, where there can be either two separate contracts (one for the assignment of rights and one for the assumption of debt) or one containing all the necessary terms and conditions or as a result of the merger or acquisition of a Societe Anonyme, where, according to the articles 68-80 of the Greek Law 2190/1920, the new company is considered as the universal successor of the previous company¹⁹.

Under the English Law, the assignment of rights and any other act of transferring to be legally enforceable needs to be prior notified to the non-transferring party or in the case of equitable assignments²⁰ to be with its consent²¹. Of course in the assignment of rights “the principle of benefit and burden”^{22 23} could result that the assignment of rights, principally, could “drag” the burden which is

¹⁶ A. *Georgiadis*, Contract Law General Part, 1998, Law & Economy - P.N. Sakkoulas Thessaloniki, Greece (pp. 453).

¹⁷ A. *Georgiadis*, Contract Law General Part, 1998, Law & Economy - P.N. Sakkoulas Thessaloniki, Greece (pp. 409).

¹⁸ Of course there could take place and cumulative assumption of debt.

¹⁹ E. *Alexandridou*, Law of Commercial Companies, Capital Companies, 2009, Nomiki Bibliothiki, Athens, Greece.

²⁰ *William Brandt's Sons & Co v Dunlop Rubber Co Ltd* [1905] A.C. 454.

²¹ *Tolhurst v Associated Portland Cement Manufacturers (1900) Ltd.* [1903] A.C. 414 HL.

²² *Tito v Waddell (No 2)* [1977] Ch. 106.

²³ C. *Davis*, The Principle of Benefit and Burden, 1998, The Cambridge Law Journal, 57(3) (pp. 522–553).

closely related to the assignment benefit. In any case under the assignment the transferor will still be liable for non-performance²⁴. So if the persons involved wish a complete transfer of rights and obligations, then they can achieve it by entering into a novation of rights and obligations, where the transferor will be replaced completely by the transferee²⁵.

2.2.2 Term

The SPA typically sets out the duration of the contract, which could be as much as 20 years (long-term), providing investment security²⁶, or as few as three years (short-term), applying flexibility in the market²⁷. The period in respect of an agreement between the date the parties (“execution date”) signed into until the termination date is called “basic term”²⁸.

Of course, before the start date, the parties might want to secure specific conditions precedent to the full effectiveness of the SPA. When such conditions are provided, relative provisions (e.x. generally the provisions concerning the governing law, transfers, dispute resolution, etc. will retain their enforceability) of the SPA will not be legally effective until their fulfillment²⁹. If the obliged party fails to satisfy those provisions, which will be essential for the other party, and the SPA is canceled then, a possible claim for damages might occur.

Under the English jurisprudence³⁰, the right to claim damages is due to whether there was a full analysis in the contract that dealt with conditions and their criticality. Under the articles 197-198 of the Greek Civil Code and the Greek jurisprudence³¹, there is the so-called "liability due to the negotiations" according to

²⁴ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 419).

²⁵ *Rasbora Ltd. V JCT Marine Ltd* [1977] 1 Lloyd’s Rep. 645 QBD.

²⁶ S. Wolter, *Long-Term Sales-and-Purchase Agreements Being Key for LNG Infrastructure Financing*, 2016, Current Sustainable Renewable Energy Reports, (pp. 3:1–4).

²⁷ R. Khalilpour / I. Karimi, *Selection of Liquefied Natural Gas (LNG) Contracts for Minimizing Procurement Cost*, 2011, I and EC Research (pp. 10298–10312).

²⁸ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. xix).

²⁹ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 125).

³⁰ *Total Gas Marketing Ltd v Arco British Ltd* [1998] 2 Lloyd’s Rep. 209 HL.

³¹ *Ef.Thess. 65/1994 Armenopoulos MH`*.

which obligations and liabilities are being imposed due to negotiating, which lasts until the proper establishing of contract or the final cancellation.

Generally, in any case, the right specification of the start date, which typically will recite at a later date than the execution date, will demonstrate the party's liability which fails to its very first obligation.

2.2.3 Delivery Point-Delivery

The determination of the delivery point in the LNG SPA could be accomplished easily by the examination of the two legal "tools" that are derived from the ICC's Incoterms publication. The Incoterms rules are standard sets of trading terms and conditions designed to assist traders when goods are sold and transported. The Incoterms rules are created and published by the International Chamber of Commerce and are being modified from time to time. The most recent revision is Incoterms 2010 and came into force on 1st January 2011³².

The first one of those tools is called Free-On-Board ("FOB") and could assist in locating the delivery point which is the loading port at the seller's LNG loading facilities, at the point where the buyer's LNG vessel and the seller's facilities interconnect. The other "tool"³³ is called Delivered-ex-ship ("DES") and implies that the delivery point is located, at the point of interconnection between the seller's LNG ship and the buyer's LNG unloading facilities. The Incoterms introduced in 2010 have modified the DES formula into two new formulas: the Delivered-at-Terminal and the Delivered-at-Place, which approximates more the DES, with slight differences. So when a contractor uses the Incoterms, it will have to specify whether it uses the Incoterms 2010, or the previous form of those, the Incoterms 2000, in order to distinguish the possible misconceptions in case of using the formula of the DES. Of course in an SPA more alternative delivery points may occur (an alternative loading port in an FOB-formula and an alternative unloading port in a DES-SPA)³⁴.

The delivery point might be crucial for the determination of the transfer of title, custody, and risk of the cargo. According to the English Law, namely s. 17.1 of

³² (2016)<http://www.iccwbo.org>

³³ Derived from Incoterms 2000.

³⁴ *P. Roberts, Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 139-140).

the Sale of Goods Act 1979 "where there is a contract for the sale of specific or ascertained goods the property in them is transferred to the buyer at such time as the parties to the contract intend it to be transferred." Following that provision the transferring of the title might be agreed to take place from the seller to the buyer -in transnational transactions- at a specific notional border point in order to avoid possible negative situations such as taxation by the taxation authority of the host country where the delivery point is located. A problem could come up, in the transfer of the LNG cargo, where the seller would wish to retain some LNG for itself or in case there are multiple LNG cargoes for multiple sellers in the LNG vessel, as according to the s.16 of the Sale of Goods Act 1979, no property in ascertained goods is transferred to the buyer unless and until the goods are ascertained³⁵. Accordingly, the seller possibly will only take responsibility only for the transferring of the cargo. Contrariwise, the Greek Law, according to the article 1034 of the Greek Civil Code, implies that the ownership, regarding the moveable objects, is established only with the physical delivery of the object.

The delivery obligation, according to the English Law, namely s. 28 of the Sale of Goods Act 1979, is concurrent to the obligation of the buyer to buy the cargo unless otherwise agreed. That is to say, if the seller does not wish to condition the decommitment of its delivery obligation by the parallel acceptance and payment of the buyer, then a specific provision in the SPA must be included. According to the article 416 of the Greek Civil Code, the delivery obligation is thought to be fulfilled with the appropriate delivery of the LNG.

2.2.4 Quantity & Quality Terms

The SPA quantity negotiations typically start with an analysis of how much LNG the buyer will request on a per year basis³⁶. The Annual Contract Quantity (ACQ) is the buyer's annual entitlement to LNG, or the maximum quantity of LNG that the Buyer has a right to take during a year or even the maximum quantity of LNG which

³⁵ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 142).

³⁶ S. Adegun, *Take or Pay Contracts as Investment Drivers for Gas Development Projects in Developing Countries: Are There Co Pilots?*, 2007, The Centre for Energy, Petroleum and Mineral Law and Policy.

the seller is obliged to deliver in any contract year. The ACQ is customarily expressed as a firm annual number in standard cubic feet (“mmscf”) or British Thermal Units (BTUs). During the execution of the SPA, the seller may agree to deliver more quantities than those derived from the ACQ, but it has no contractual obligation to do so. An SPA might have one ACQ that refers to every year of the contract, or it may apply different ACQs in different years³⁷. Though, the ACQ is a possible method for analyzing the contractual obligations of the parties but in the case of LNG the particularity of the naval transportation of LNG implies that the most accurate way of stipulating the obligation to deliver the ACQ is to phrase that the seller will deliver a series of LNG cargoes against the scheduled requirements of the SPA, where the overall amount of LNG to be delivered with those cargoes, cumulatively should give the ACQ. Accordingly, the seller’s failure to deliver LNG would be analyzed on a cargo-by-cargo basis³⁸.

The quantities clause in the SPA could give some specific benefits to the buyers, who will often seek to obtain smaller contract quantities of LNG. Additional contracts may then be pursued in the future, with the same or different seller, when demand increases or becomes more stable (i.e., ‘tranche-by-tranche’ procurement). Buyers will also seek for additional flexibility in their obligations under the LNG SPA, like the “ramp-up” which is an agreed mechanism to increase annual quantities over some contract years until a “plateau ACQ” is reached³⁹.

Some of the consequences of the seller’s failure to deliver a quantity could be a reduction in the buyer’s obligation to take gas or even to be liable for liquidated damages which is usually mentioned as a percentage of the LNG price⁴⁰.

The SPA may also contain provisions concerning the quality of the LNG to be sold at the delivery point. Where the LNG is sold on a FOB basis, the quality provision will usually refer to the LNG that will be loaded on the buyer's LNG ship at the seller's loading port. Where the sale is taking place on DES basis, the quality specification

³⁷ *S. Gaille*, The Use of Quantity Terms to Improve Efficiency and Stability in International Gas Sales & Purchase Agreements, 2008, *Energy Law Journal* (pp. 645-666).

³⁸ *P. Roberts*, Gas and LNG Sales and Transportation Agreements Principles and Practice, 2014, Sweet & Maxwell, London, UK (pp. 116).

³⁹ (2016) <http://www.gastechnews.com/lng/what-new-lng-buyers-want/>

⁴⁰ *S. Gaille*, The Use of Quantity Terms to Improve Efficiency and Stability in International Gas Sales & Purchase Agreements, 2008, *Energy Law Journal* (pp. 645-666).

will apply to the LNG that will be unloaded by the seller's LNG ship to the buyer's LNG loading port.

The composition of natural gas is possible to vary from one gas field to another. As a result gas with different qualities may be used in an integrated natural gas system (like the EU's). So, quality standards are considered necessary for the safe and secure delivery and use of gas. Suppliers in an integrated free market could risk having their gas rejected by natural gas system because it is not the right quality, as different gas compositions may have adverse consequences for the operation of the system and the industry⁴¹.

The quality specification typically will refer to specific features of LNG, such as the chemical composition, the calorific value, the temperature, which generally cannot be higher from -158 °C, the Wobbe index expressed in Btu, which is an indicator of the interchangeability of natural gas, the relative density, the molecular weight, the concentration of methane, butane, pentane, nitrogen, hydrogen sulphide and of total sulfur⁴². Likewise, the European Commission has issued a mandate to the European Committee for Standardisation to draw up harmonized standards for gas quality in the EU⁴³.

So what it needs to be ensured during the drafting of the SPA is that the quality standards of LNG will match with those of the LNG terminal and generally of the natural gas system in which the LNG is about to be injected. Because if they are not matched or simply be adjusted to the least of the requirements set by the operators of the natural gas system and the LNG terminal, then usually the buyer will not be able to justify a leap away from its contractual obligations.

2.2.5 Shortfall

Any quantity of LNG that the seller fails to deliver in order to satisfy the buyer's requirements according to the schedule, with some exemptions, will be

⁴¹ (2016) <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-quality-harmonisation>

⁴² (2016) <https://www.desfa.gr>

⁴³ (2016) <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-quality-harmonisation>

called shortfall⁴⁴. This shortfall could be considered as a breach of contract according to the English Law. Every breach of contract gives rise to a right to claim damages in respect of the loss occasioned by the breach, but not every breach of contract gives to the innocent party the right to terminate the contract⁴⁵. This generally will be scrutinized by the fact on whether the agreed term that was breached constitutes a condition, warranty or an intermediate term. A right to terminate will arise where the term was broken is a condition, but not where the term was a warranty, and when the term broken is intermediate the right to terminate will depend upon the consequences of the breach (if they are serious then a right to terminate will arise)⁴⁶⁴⁷. Of course certain provisions in the SPA could exclude liability for the seller which will typically cover some events (not acceptance of the cargo by the buyer, actions of the buyer, force majeure, etc.). The seller's liability for shortfall could cause to the buyer damages that must be covered or even they could give a right to terminate the contract. The covering of damages could be covered with compensation equitable to the buyer's actual losses, or with a predetermined lump sum amount of money which will correspond approximately to the pre-calculated actual losses, etc..

According to the Greek Law, the cover of damages and the termination of the contract due to the seller's liability for shortfall will take place accordingly when the breach of the contract is considered as due exposure or failure to provide. When the breach of the contract takes place because the seller could not deliver the cargo in the specific schedule then incurs a right for the buyer to set for the seller a reasonable deadline to perform, stating yet that after the expiration of that period it will reject the deliver. If the deadline comes due then, the buyer has a right to claim for compensation for non-fulfillment or to withdraw from the contract, but not to require the delivery (article 383 of the Greek Civil Code). When the breach is considered as failure to perform then, the buyer can have the right to select

⁴⁴ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 175).

⁴⁵ E. McKendrick, *Contract Law, Text, Cases, and Materials*, 2012, Oxford University Press, Oxford, UK (pp. 753).

⁴⁶ E. McKendrick, *Contract Law, Text, Cases, and Materials*, 2012, Oxford University Press, Oxford, UK (pp. 758).

⁴⁷ *Hong Kong Fir Shipping Co Ltd v. Kawasaki Kisen Kaisha Ltd* [1962] 2 QB 26, Court of Appeal.

disjunctively of the rights cited in the article 382 subpar. a' of the Greek Civil Code (seek money for the cargo, under the provisions of unjust enrichment, common exemption compensation, withdrawal).

2.2.6 *Take-and-Pay & Take-or-Pay*

The Take-and-Pay provision typically cited in some natural gas contracts provides an inelastic obligation of the buyer to pay for usually the amount of money equal to the value of the LNG cargo, on condition that cargo is delivered⁴⁸.

On the other hand, the Take-or-Pay clause (otherwise known as “minimum bill”) is typically a cited obligation in long-term natural gas contracts between a buyer and the seller that determines that the buyer will have to pay for a predefined amount of gas, either it takes delivery of that or not. If a contract, for instance, prescribes a take-or-pay formulation of 40%, the buyer has to take delivery of 40% of the contract amount. If the buyer is not able to fulfill this requirement, and it will pay obligingly for that 40% of LNG, then the buyer will have the option to take the gas at some time later⁴⁹. A properly constructed Take-or-Pay contractual clause provides the seller with an assured revenue stream that ensures an adequate return on significant project capital investments and risks to which it is exposed⁵⁰. A fundamental typical outcome of the take-or-pay contract formulation is that if a buyer fails to take any or all of the scheduled cargoes during a contract year – or on a cargo-by-cargo basis (under a cargo-by-cargo regime, the buyer’s failure to take is determined on an individual cargo-by-cargo basis, as opposed to an annual basis) - the buyer is not in breach of contract, provided that the buyer timely pays the resulting percentage of the Take-or-Pay payment.

In fact, unless the SPA otherwise provides, the buyer can elect not to schedule any cargoes at all during a contract year and accrue a Take-or-Pay Payment to be settled at year-end, and there would be no other contractual remedy for the seller in respect of such failure to take. Furthermore, upon settlement of the Take-

⁴⁸ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 207).

⁴⁹ M. Polo / C. Scarpa, *Liberalizing the gas industry: Take-or-Pay contracts, retail competition, and wholesale trade*, 2013, *International Journal of Industrial Organization* (pp. 64-82).

⁵⁰ (2016)<http://www.kslaw.com/library/newsletters/EnergyNewsletter/2013/April/article1.html>

or-pay Payment, the seller, in the ordinary course, would be obliged to provide make-up quantities for the buyer, if it asks so, during the future contract years or on the next cargoes⁵¹.

Notwithstanding, the enforceability of such clauses is a matter of serious controversies. So, the legality of the Take-or-Pay clauses could fall within the scope of EU regulation of the gas sector, which currently is prescribed in the No. 2009/73/EC Directive, or otherwise known as the Third Gas Directive. Application of general provisions of EU competition laws is also common to the gas industry. One of the key principles of the Third Gas Directive is the third party access to gas transportation systems. This principle provides⁵², in essence, that the owner of the grid must allow any nondiscriminatory access to the suppliers to the gas transmission and distribution system. In this scope, the Take-or-Pay clauses could be considered as one of the possible reasons for leeway from the Third Party Access. For that reason, the Directive⁵³ also provides that a party to a gas undertaking may request for an opportunity to abrogate from third party access, only when, possibly, it comes up with serious economic and financial constraints as an outcome of its Take-or-Pay obligations. So, according to all mentioned above, the Take-or-Pay obligations are in principle legitimate, concerning the EU law, under certain circumstances.

The EU competition law is another obstacle, for the blocking of Take-or-Pay clauses, which is enforceable in the legal orders of the EU Member States. To be more specific, articles 101 and 102 TFEU prohibit agreements or other concerted practices, which restrict or distort competition and any other abuse of a dominant position by undertakings within the Common Market. The main rule applied by the Commission for the examination of gas supply contracts, implies that the long-term gas supply contracts are not per se prohibited, but their impact must be appreciated on an individual ad hoc basis, in order to determine whether they restrict competition to an unacceptable extent^{54 55}.

⁵¹ (2017) <https://kslawemail.com/77/429/pages/article8.asp>

⁵² Article 32.

⁵³ Article 48 and 32.

⁵⁴ *Commission Decision "Distrigas", memo/07/407*, issued on 11.10.2007

According to the Greek Law, namely articles 349 and 381 of the Greek Civil Code, the Take-or-Pay clauses are considered predetermined compensation clauses, where the buyer will typically compensate on a predetermined basis the seller, in case it fails to take delivery of the cargo and in any case not to fulfill the entire agreed counter performance, but part of it. In expansion, due to the notion of this clause and its impact on the internal market taking into account the monopolistic or oligopolistic dynamic of the market players, it is proper to apply specific arrangements of mandatory law to avoid distortions of competition. The Greek Law No. 3175/2003 provides that gas supply contracts, with enterprises of power generation cannot contain terms more onerous than those laid down in the respective contracts of DEPA (Greek Public Company for the Supply of Natural Gas) or third parties with their own suppliers, in particular with respect to take-or-pay clauses, which when added up as to the Customers of each party, exceed the sum of its obligations towards its own suppliers, in order to avoid transposing the costs delivered from these clauses to the consumers, when those costs are not undertaken by their suppliers⁵⁶.

The English Law does not allow the enforcement of the Take-or-Pay clauses that could be considered as a non compensatory penalty against a party to agreement, in default. The rule against penalties is considered an abnormality within the English Contract Law, which generally allows parties to agree on whatsoever contractual clauses freely. Of course, the enforceability of such clauses is possible when they truly have a compensatory notion and as such could not be considered as penalties⁵⁷.

2.2.7 Price & Price Review

There is no generally recognized international trading price for LNG (and natural gas) in contrast for example to crude oil. Mainly, natural gas prices are a function of the market conditions, supply and demand. Though, due to the limited

⁵⁵(2017)http://www.metaxaslaw.gr/images/CLIENTS_ALERT_Take_or_pay_Conditions_in_Gas_Supply_Agreements.pdf

⁵⁶(2016) <http://www.moussaspartners.gr/take-or-pay-clauses-in-gas-supply-agreements/>

⁵⁷ *B. Hollan*, Enforceability of take-or-pay provisions in English law contracts – resolved, 2015, *Journal of Energy & Natural Resources Law* (pp. 1-11).

alternatives for the supply of natural gas in the short term, even small changes in supply or demand curves over a short period can result in large price fluctuations⁵⁸.

That is why the pricing formulas tend to be tied to specific markets. Those formulas also tend to be determined by reference to the prices of other fuels. The first generally represent given market conditions in the three main regions of the LNG market: Asia and the Pacific, Europe, and the United States. The influence of those regions could also affect the pricing mechanisms in LNG SPAs. Those regions are thought to be liquid gas markets, and the LNG pricing mechanisms are determined with relation to price indices in those markets. In such cases, the prices, for example in North America, are set by reference to Henry Hub or Houston Ship Channel pricing, both of which are considered as liquid and transparent reference price points. In Europe LNG markets (except the UK) generally, LNG prices are set with correlation to oil and its products⁵⁹.

Despite, the LNG sales destinations, many LNG SPAs contain provisions with pricing mechanisms for price review in light of prevailing market circumstances. One apparent reason why the parties might wish to provide for the price possible, future modifications is to account for extra costs due to inflation, the cost of labor and materials to operate, and maintain⁶⁰.

These review provisions can be widely expressed, or they may even include specific collimators that regulate the range of new prices that could be established in the future⁶¹. Such kind of provisions are less likely to appear where LNG markets are liquid and there is little complication over how to designate the value of competing fuels, which are inevitably other gas supplies (e.g., in the United States and the United Kingdom)⁶².

⁵⁸ (2016)http://www.eia.gov/energyexplained/index.cfm?page=natural_gas_factors_affecting_prices

⁵⁹ M. Tusiani / G. Shearer, *LNG a non Technical Guide*, 2008, PennWell, Tulsa, Oklahoma, USA (p.326-330).

⁶⁰ (2016) <https://www.andrewskurth.com/insights-1085.html>

⁶¹ (2017) <http://globalarbitrationreview.com/chapter/1036074/gas-price-review-arbitrations-certain-distinctive-characteristics>

⁶² M. Tusiani / G. Shearer, *LNG a non Technical Guide*, 2008, PennWell, Tulsa, Oklahoma, USA (pp. 330).

2.2.8 Force Majeure Exemptions

The SPA will typically indicate a list of events or circumstances upon which the respective party could afford relief from its liability to perform. Especially, according to the English Laws, the events that will constitute force majeure will have to be defined carefully in the agreement. Moreover, the SPA will typically provide, legitimately a list of events that, since they would be previously mentioned, they should require extra attention, and as such, they could be excluded from the status of force majeure. In any case, it is considered that the agreement remains in effect, but the respective party must perform as soon as possible or to risk penalties for breach of contract⁶³. The Greek Law, on the other hand, does not require an analytic list of events as those will be examined respectively in each case.

2.2.9 Other matters etc.

The SPA should also mention which country's courts will have jurisdiction over that agreement and if that jurisdiction is exclusive or non-exclusive. Moreover there might be a reference to possible insurance concerning the covering of damages of the respective party which may occur because of failure regarding the contractual obligations of the insured person. Also, the SPA should typically mention which law will be applicable for the interpretation of its content. English or New York Law are popular choices as they are highly flexible and allows the parties to have extensive freedom to contract⁶⁴ and as main representatives of common law are not subject to the will of their domestic government or of the most popular political party.

⁶³ (2017)<http://www.internationallawoffice.com/Newsletters/Shipping-Transport/United-Kingdom/Wikborg-Rein/Force-majeure-clauses-under-English-law>

⁶⁴ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 459).

3. The Transportation of LNG

The transportation of LNG in this section will be discussed only concerning its naval form and its respective agreements, as it happens to be the only pure form of transportation in which the liquefied form of gas is maintained and requires a different approach from that of the land transportation. Many contractual provisions and conditions mentioned in the previous chapter apply to the contractual pursuits of the parties, as regards the transportation of LNG and in this case, it could be said that it is not appropriate to repeat them to this chapter. Such similar contractual provisions could be: (a) the provision concerning which the contractual parties could be, (b) the term, (c) the delivery point and the delivery itself (in this chapter there will be a thorough analysis regarding that fact) (d) force majeure exemptions, (e) applicable law, (f) jurisdiction, (g) insurance etc.

What will also be discussed is the contractual procedure of unloading LNG, with respect to the Greek Region and more specifically covering the only, for now, Greece's unloading port of LNG, which, is the LNG terminal of Revithoussa. The fact that Greece nowadays is about to become a natural gas crossroad of the Southeastern Europe requires a more comprehensive analysis on the legal and commercial features concerning the unloading of LNG, which shortly might overwhelm the European LNG industry. Of course, the analysis will focus only on matters of unloading of the LNG and not of storage, regasification and injection to the natural gas system⁶⁵.

3.1 The LNG Transportation Agreements

So as it was mentioned previously, the LNG shipping can be made either on a Free-On-Board or Delivered-ex-Ship basis. According to these two contractual legal methods of LNG shipping, the transporting party can be either the buyer or the seller.

Mainly, there are two types of agreements for the carriage of goods by sea: the bill of lading and the charterparty. The bill of lading has to do with the sale and

⁶⁵ (2016) <http://www.desfa.gr/>

ownership of the cargo being shipped and it is a contract of title to the goods and is considered as a receipt for the cargo, stating the quantity and condition and actually an evidence of the contract of carriage. Meanwhile, the charterparty stipulates the transportation service, and it is a contract signed between one party, the charterer, and the vessel's owner by which they agree to the particular terms and conditions under which the charterer has the right to use the owner's tanker. In the LNG chain, the type used most is the charterparty, and the Bill of Lading is used as a sub-provision in the charterparties.

Historically, suppliers looked to control the LNG tankers by owning them, but this trend is changing since many buyers also are keen on purchasing LNG ships of their own. Since the construction of LNG vessels is of high capital cost projects (for now in the world exist not more than 410 LNG carriers)⁶⁶ an alternative to direct ownership of vessels is the chartering of LNG ships from third-parties during the lifetime of an SPA. In that case, typically the owner is liable for the construction of the ship, management, technical operations and maintenance and insurance.

Generally, if the ship is provided for a specific purpose (delivery of a specific amount of LNG) it is called voyage-charter, when the ship is provided for a specific period is called time-charter⁶⁷.

The main standard form charters that are available to the LNG shipping market are the following: the "ShellLNGTime1" which was introduced by Shell in November 2005 and the "BIMCO & GIIGNL voyage charter" adopted by the BIMCO and GIIGNL in may 6 April 2016.

Most LNG shipping arrangements are fixed on time charters reflecting a market based on long-term sale and purchase arrangements. The "ShellLNGTime1" is well placed to this environment of time charters. However, since the LNG spot trade has involved the "ShellLNGTime1" form is also used for voyage charters, which have increased lately. So the "ShellLNGTime1" charterparty contain clauses some of the most important are as follows: At first, there is a Description and Condition of the Vessel clause where ship's age, engines, hull and tanks' condition, cargo's quality

⁶⁶ IGU World LNG Report (2016) - LNG 18 Conference & Exhibition Edition.

⁶⁷ P. Roberts, Gas and LNG Sales and Transportation Agreements Principles and Practice, 2014, Sweet & Maxwell, London, UK (pp. 305).

and seaworthiness matters are analyzed dully. Second, the clause about safety management mentions that it is the shipowner's obligation to adjust with the International Safety Management Code and provide the ship with all the necessary documents. Afterwards, issues about the Shipboard's Personnel are examined. Furthermore, the "safe places" clause declares that the shippers have the obligation to pass between and at places which are safe and are being dully clarified in the charterparty. Also, in the same clause there is a clear statement that the risk and responsibility of the ship's compatibility with the loading and unloading port lies with the ship-owner. In parallel, there is particular clause that demands that the tanks upon the delivery and redelivery of the ship must contain a least certain amount of LNG. The fact that the vessel might contain less than the predetermined quantity basically cannot give the charterers the right to deny the delivery⁶⁸. Also the LNG Retention clause mentions the liabilities of the charterers and shipowners regarding the provision and payment of LNG which needs to be retained on board after the discharge of the cargo. The standard "off-hire" clause states the interruption of the compensation for the lease of the ship due to delays caused by operational, equipment, stores, hull or engines difficulties, and maintenance problems, accidental or not damages for which the owner is held liable. Last, any dispute arising will be solved according to the laws of England and any dispute arising will be referred to Arbitration in London according to the Arbitration Act of 1996⁶⁹.

Given the fact that the number of "flexible cargoes," spot or short-term trades or long-term contract with cargoes deviated from their first destination has increased the need for a more specific voyage charterparty contract has come up.

So the International Group of LNG Importers (GIIGNL) decided to introduce its own form for a voyage charter party for the shipping of LNG, which is not keen on adapting provisions of a time charterparty, which could be irrelative to a shorter trade. The GIIGNL charterparty is drafted in two contracts where the key commercial terms are negotiated in the primary first document (freight rate, voyage length, lay time, demurrage, specific ports, etc.), while the second document containing the

⁶⁸ Though in the case of *Pantanassa* the owners were liable for breach of contract for this reason (*Efploia Shipping Corp. v. Canadian Transport* [1958]).

⁶⁹ *M. Kyriaki / Maurokefalos Ioannis*, LNG Chartering Policy and Charter - Party Analysis, 2016, Repository of Cardiff University, Cardiff, UK.

mechanical issues. This allows the parties to be very quick in negotiating a spot transaction.

GIIGNL voyage charter provisions have some conceptual differences with time charter terms. The risk of delay provision is of high importance in this charterparty. Where goods are shipped based on time-charter context, the risk of delay during the voyage remains primarily with the charterer. In contrast, on voyage charter terms, the owner has the risk of delay. Of course, the charterer is nevertheless liable to compensate the ship owner for delay during the loading and discharging process. Thus, in the voyage charterparty, there is no provision entitling the charterer to compensation for additional boil-off⁷⁰ during a period of delay for which the owner is responsible. Therefore, the challenge in drafting an LNG voyage charter is how sufficiently to compensate the charterer for lost boil-off during a period of delay for which the owner is responsible. Of course and other provisions are contained in that charterparty, which highlight the differences with the time-charters⁷¹. Last, there is a need to mention that the GIIGNL charterparty provides examples of the provision that cite the applicable laws for the interpretation of its context. So applicable law can be either the English Law and any dispute arising will be solved according to the Arbitration Act of 1996 by the LMAA⁷², or by the US Maritime Law and any dispute arising under those laws will be solved according to the SMA rules for Shortened Arbitration Procedure. Also, the Singapore/English Law can be applicable, and any possible dispute will be solved by the Singapore of Maritime Arbitration, or applicable law can be a mutually agreed by the parties with three arbitrators solving their difference.

In conclusion, what it needs to be clarified are the matters where the charterparty interacts with the provisions of the SPA. In any case in the provisions of the charterparty must be taken into account its duration, which typically must be at least combined with the SPA. The LNG vessel movements in the open seas must be regulated in advance, for the needs of the transfer of title, risk, etc.

⁷⁰ The boil-off as regards the LNG shipping means that the cargo will inevitably be lost, in the context of delay, as it will be used as fuel.

⁷¹ (2017) <http://www.giignl.org/>

⁷² London Maritime Arbitrators Association

3.2 The Unloading of LNG in the Terminal of Revithoussa in Greece.

The LNG terminal on the island Revithoussa is one of the fourteen stations for unloading and gasification of liquefied natural gas currently operating in Europe and the Mediterranean basin.

According to the Greek Code for the operation of the National Natural Gas System only a User of the LNG terminal, or one of its authorized persons, has the right to make use of the Revithoussa LNG terminal, by signing a respective Model Agreement for the LNG Facility Usage with the Transmission System Operator of the National Natural Gas System (in Greek known as DESFA S.A.), which is the manager of the LNG facility of Revithoussa. This model agreement contains inter alia, provisions concerning:

- The Contractual Period: Moreover, except the reference for the contractual duration of the contract, there is also a sub-provision stating that the contract period shall be automatically extended for (1) extra year if at least one of the contracting parties will not proceed to termination of the agreement at least three (3) months prior to the expiration date.
- Pricing and Payments: It is stated that the LNG User is obliged to pay monthly to the Operator compensation in exchange for providing the services mentioned in the model agreement, which is calculated and billed as specified in the form "Invoices and Charges for the Access in the National Natural Gas System."
- Measurement and Testing: The process and the quantity measuring method and quality of the LNG delivered by the LNG ship in the LNG installation and other similar matters are defined in the manual "Regulation of Natural Gas Metering" and in its supporting documents.
- Ownership of the Transported LNG: Ownership of each LNG load, which the User delivers LNG from the LNG ship LNG facility remains with the LNG User. The ownership of each quantity of LNG which is gasified and injected into the ESFA by the Operator, is transferred compulsorily and automatically with the delivery of the cargo to the Operator, but not with the purpose of redemption, but only for the needs to execute the future transportation via the system.

- Liability of the Contracting Parties: Inter alia, the provision for the settlement of the liabilities mentions that the limitation of liability shall not apply in the case of serious negligence, fraudulence, intentional mismanagement, so each party shall be liable to the contractor in agreement with the law. The liability of the parties is solely limited only as regard the direct damages.
- Force Majeure: Any unforeseeable exceptional situation or event which is outside the sphere of influence and control of the contracting parties and could not even been avoided even if the parties had demonstrated the due diligence expected of a reasonable and prudent person, and that could lead in preventing any of the Parties to fulfill its contractual obligations, such as those arising from the model agreement.
- Letter of Credit: No later than sixty (60) days from the signing of the contract and in any case before the start date of the agreement, the LNG User shall deliver to the Operator irrevocable Letter of Credit for the payment and Good Performance for the LNG User, issued by a bank, which will ensure the fulfillment of its obligations under the Agreement.
- Substitution: None of the parties can be substituted in the rights and obligations, except the cases that the substitution is required by the Law.
- Applicable Law – Dispute Resolution – Jurisdiction: The model agreement is governed by Greek laws. If any dispute arises, the respective party sends to the other an invitation for amicable settlement of the dispute. If this procedure fails then, the parties may resort to arbitration conducted by the Regulatory Authority of Greece. Particularly in measurement issues and if the dispute is not resolved through amicable dispute settlement procedure, the dispute can be solved by a commonly agreed by the parties expert. If the dispute is not settled according to all the above, then the dispute can be brought before the competent Courts of Athens.

Entitled to sign this particular agreement with the Operator are the registered Users of the National Natural Gas System if proven to comply, with at least one of the following conditions:

- A. They have committed themselves transmission capacity in the Transmission System Point at the point where the LNG is injected to the Gas System as Transmission Users.
- B. They serve other Transmission Users who have booked Transmission Capacity where the LNG is injected to the Gas System.

In order someone to have the entitlement to sign the model contract for the LNG Facility Usage then as it will have to be included in the Register of the Users of the National Natural Gas System by submitting a registration form to the Regulatory Authority for Energy of Greece, according to the article 4 of the Regulation for the Registration of Users of the National Natural Gas System. Right to submit registration forms have the persons mentioned in the article 5 par. 1 of the Regulation for the Registration of Users of the National Natural Gas System. Subsequently, only those persons can have the right to enter into the previously mentioned model agreement and be considered as LNG Users.

The Operator can offer, to the User of LNG (or one of its affiliated persons), who can be the same person with the User of the Natural Gas System and has registered prior entering the port of Revithoussa, the, so called, Basic LNG Service, which is the object of the model agreements and includes the following:

- A. The unloading of LNG, which can take place with the connection of the port to the vessel, the LNG injection and afterwards the disconnection of the LNG vessel.
- B. The temporary LNG Storage of the User.
- C. The gasification of the loaded LNG and subsequently its injection to the Transmission System through an entry point, which is located physically, and last.
- D. The implementation of the necessary measurements and any action required to the effective, safe and cost-efficient operation of the LNG Facility, taking into account the provision of services referred to from point (A) to point (C).

Of course the Operator to provide to the person concerned the Basic LNG Service, as previously mentioned, it has to sign a model contract for the LNG Facility Usage, as it is being provided due to the article 71 of the Code for the operation of the National Natural Gas System. What it needs to be clarified is that the LNG

balancing cargo cannot benefit from the basic LNG service, which may exist in the load for technical reasons (movement of ship or creation of the appropriate pressure for the injection of LNG). In every case, we have to state that the model agreement should be applied and interpreted cumulatively with the Code.

So, when the LNG User exceeds the designated time for the unloading of LNG, which according to the article 67 par. 1 of the Code is two (2) days, then the Transmission System Operator impose to the User a fee for the override, if, according to the Code, cumulatively

- A. this overrun resulted the Transmission System Operator to postpone the mooring or unloading of an LNG from an another LNG ship of another User which was scheduled in accordance with the Final Monthly LNG Plan (the plan on the ships which will moor or unload LNG in the terminal) and this arrival of the new LNG ship to be confirmed by submitting the corresponding Notice of Arrival in Anchorage, at the time at which the LNG ship of the User is found in the predetermined by the Transmission System Operator point in the sea area of the LNG Facility, the "Pilot Station" and if the LNG User has settled every relevant concerning the competent port authorities, according to the article 67 par. 4 of the Code, within the period during which the first User has exceeded the LNG unloading schedule of the two days,
- B. any force is not applicable majeure reason for the User that exceeded the LNG unloading schedule.

Of course, the above procedure may cause some significant problems to the LNG facility. In times that the demand for LNG is not high enough to gather LNG ships in the Revithoussa port, this procedure could result the continuous accommodation of LNG ships and of their cargoes which in fact may use cooling capacity by the terminal for the needs something that in turn could result in unmeasured damages for the Transmission System Operator. That is to say, because the LNG User is not obliged according to the Code or even the model agreement to depart from the port of Revithoussa, then there is a serious possibility to have the ship anchored in the Revithoussa port for a significant period especially when no other LNG ship approaches the port for unloading.

The Code also refers that, with the exemption of force majeure events, when the Transmission System Operator does not allow a User LNG ship to moor or unload LNG in the corresponding LNG unloading schedule, according to the Final Monthly LNG Plan, the Operator is obliged to pay for lay-days to the User. In case that the LNG ship transfers loads of two or more LNG Users, then the lay-days are allocated proportionally according to the quantities each User placed in the LNG vessel.

Of course, the force majeure events according to the Greek Laws is not an entirely comprehensive matter that has been solved in the domestic courts, especially in cases such as the LNG shipping, and this could lead to possible contradictions. The Code also mentions that in the event that the Operator does not allow the User's ship to moor or unload then it is obliged to pay lay-days. Though the Code does not make a clearance whether the lay-days could be given and to the affiliated person of the User who possibly is and the ship owner, only makes a reference to the User's ship, something that it could be considered very extraordinary, but remains a fact.

In the case of emergency, the Code states that the Transmission System Operator or the User may require terminating the LNG unloading process of the LNG ship of the User that has anchored to the port and proceeded directly to its departure. Both the User and the Operator must comply directly with proportionate requirements of the other party.

In this case, the proportionate requirements is a matter of fact that may cause a clash of interests as regards the measurement of what the relevant party should ask for the breach of the agreement and at what percentage. The legislator probably kept the provision with that wording knowing in advance the dynamic nature of the LNG business and the fact that perhaps the damages in different periods of time to be measured quite differently, meaning that a generalized way of wording could allow the appropriate interpretation in each case.

Last, in any case, the vessels that approach to Revithoussa terminal to unload LNG will have to be certified, as noted above, according to the Regulation for the Certification of Ships "Technical and Operational Compatibility with Revithoussa LNG Terminal" and be subject to the technical specifications set out in this Regulation.

4. Non-contractual Liability for Environmental Pollution in the Context of Transportation and Unloading of LNG

What must be ensured during the contracting procedure of the SPA is that none of the contracting parties will assume any financial or any other liability which is not explicitly mentioned in the SPA. The possibility to undertake such obligations is particularly noticeable especially during the transportation of LNG, when exactly it is likely to have LNG (or any of its products) released into the environment, causing adverse effects. Any contesting of environmental rights requires a subsequent recovery which could take place either by material or compensated way. This recovery in many cases could result in unmeasured costs for the respective contracting party, something the parties would wish to anticipate it in advance in the context of the agreement.

According to the Greek legislation, environmental protection is considered as an obligation of the State and every citizen's right, which is being enunciated in the article 24 of the Greek Constitution. Moreover, particular domestic laws are setting the scene of environmental protection and are establishing non-contractual liability for compensation provisions, also concerning the naval activity of LNG ships. One of these laws is the Law No. 1650/1986 and more specific the article 23 which establishes civil liability for the pollution and any other downgrading of the environment. The article 15 of the Law No. 4042/2012, which incorporated in Greek legislation the EU Directive No. 2008/1998, also introduces civil liability for the environmental pollution with wastes. Also the article 12 of the Law No. 743/1977, which mentions that the restoration of the damages caused due to pollution by oil, wastewater, solid waste and ship waste or installation and the article 4 of the Law No. 1147/1981 concerning the cause of damage due to the pollution of the sea because of dumping of wastes and other materials, establish the civil liability likewise.

Moreover in the Greek legal order (and in other EU jurisdictions as the UK), was incorporated, the EU Directive No. 2004/35, which introduced the environmental liability, which is contrasted to the civil liability, concerning the protection of individual civil rights. The civil liability is more concentrating on the

protection of individual civil rights and, on the other hand the environmental liability aims at the protection of the environment itself as a separate legal interest. In this case, the liable person for the environmental protection and the environmental restoration is obliged to comply with the means of public law and with actions of public persons that are about to enforce any necessary action to the liable person⁷³.

That Directive also determines the liable person to pay for environmental damage, who is the polluter. This is the so-called "polluter pays principle," which implies that individuals who are liable for an environmental damage and were required to prevent it are obliged to pay remedy for the damage.

Last, into the Greek legislation there have also been introduced provisions of International treaties such as the Convention for Protection of the Mediterranean Sea against Pollution (Barcelona Convention) with law No. 855/1978, which concerns only a limited number of states.

In any case, all the above-mentioned provisions, either of Greek domestic legislation, or EU laws, or International Treaties, incorporated in the Greek legal order, establish liabilities that point out the need for environmental restoration or compensation to individuals or states. Those provisions may themselves provide the appropriate, and efficient way to claim the respective environmental rights, or even as provisions, which define the legitimate manner of environmental behavior may hold such persons liable, according to general and tort provisions of the Greek Civil Code (articles 57, 59, 299, 914, 919 of the Greek Civil Code), in a way that may probably lead to pecuniary compensation of the damaged persons.

During, the drafting of an LNG agreement, particular focus has to be given to the fact that according to some provisions of international treaties or any other domestic laws the financial or physical rehabilitation debtor could be an another person than the one specified in the LNG agreement. It is likely that that the individual hold as liable in the LNG agreement for the payment of any monetary obligation arising from the pollution of the environment will be for example the carrier who has leased the ship, but according to some provisions, for example in the

⁷³ T. *Cosmidis / C. Chasapis*, Non-contractual Liability for Compensation because of Environmental Pollution on the Frame of Maritime Activity, Energy, Shipping and Naval Transportation, 2013, Nomiki Bibliothiki, Athens, Greece (pp. 37-93).

Greek Laws, namely the Law No. 743 / 1977, the liable person for the environmental damage will be jointly (with other individuals) and severally the owner of the LNG ship. That is to say the wording of the LNG agreement should be very analytic and precise in a manner that it would predetermine such events in a way that it will not allow the disruption of the parties' commercial relationship.

5. Dispute Resolution

During the period that the LNG SPA or the LNG transportation agreement is in force, there will be some matters between the contracting parties, which will result in disputes. In any case when a dispute arises the agreement should allow the parties to perform their respective obligations and covenants to the greatest possible extent, even and to other existing contracts, in parallel to their dispute, to avoid having the LNG industry entering into a higher unnecessary collision of interests.

Of course, the relevant agreement typically will provide the way according to which those disputes will be addressed. So, conflicts may arise for the performance of the parties obligations (for example for the fulfillment of a condition precedent), or a dispute could arise when a party fails to perform, due to a force majeure event, something that could give cause a dispute on whether the occurred event is considered as a force majeure event or not. A dispute could arise whether an alleged breach of warranty or condition has emerged or more possibly price reviews⁷⁴.

One of the most expensive disputes in the LNG activities was the Nigeria LNG's 1996 breach of contract arbitration against ENEL of Italy for \$13 billion⁷⁵. But, the most common trend in the LNG disputes is the price reviewing which occurred during the last decades.

The price disputes have usually put forward, as buyers of LNG often arguing that the downstream market is being reformed and this could fairly enable the buyer to decrease the contract price it is liable. More commonly, many LNG SPAs provide provision according to which a party may request a price review where certain conditions have been established. As liquid traded gas markets have developed, many buyers have requested price revisions trying to introduce gas hub pricing into their LNG contractual price⁷⁶.

Generally the cause for dispute vary and the so the parties for the determination of their disputes might prefer to resort to arbitration or litigation. A

⁷⁴ P. Roberts, *Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 445-446).

⁷⁵ (2016) <https://www.law360.com/articles/823081/a-look-inside-the-recent-rise-in-lng-disputes>

⁷⁶ (2017) <http://globalarbitrationreview.com/chapter/1036075/destination-restrictions-and-diversion-provisions-in-lng-sale-and-purchase-agreements>.

provision between the parties to the relevant contract to deal with their disputes by choosing arbitration will typically mention and the nature of the disputes to be referred to arbitration. So the agreement to arbitrate must be accurate on its wording or if the terms are not clear then a simple reference but clear should allow the validity of the arbitration term to be in force for all kinds of disputes which could result in the future.

Arbitration could be agreed between the parties for the settlement of their disputes, and specific arbitrational procedures of clearly so-called domestic jurisdictions could be applied such as the arbitrational procedure mentioned in the articles 867-903 of the Greek Code of Civil Procedure, but what is most common is the use of the rules international arbitrational tribunals such as those of the London Court of International Arbitration (LCIA) Rules, the International Court of Arbitration (ICC), the American Arbitration Association (AAA), the Stockholm Chamber of Commerce (SCC), the UNICTRAL rules etc.

The use of arbitration for the resolution of the disputes in such cases is the most common trend, but the parties could choose to find resort and to the classical domestic litigation. Of course the nature of the LNG disputes, the need for high speed of the resolution and flexibility, which can be ensured by an arbitrational procedure, the neutrality, which could be thought that cannot be guaranteed through the domestic litigations, which may favor the party of their jurisdiction, the reduced cost of arbitration, the expertise, and the confidentiality are some of the reasons that make arbitration a more attractive option than the litigation. Taking into account the fact that most of the major developed and developing countries have incorporated into their jurisdictions the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, makes and the enforceability of the arbitrational awards enough sure, arbitration is considered in many cases the only certain way to the fair and clean settlement of the LNG disputes⁷⁷.

⁷⁷ *P. Roberts, Gas and LNG Sales and Transportation Agreements Principles and Practice*, 2014, Sweet & Maxwell, London, UK (pp. 452).

6. Conclusion

6.1 Summary of Main Findings

This paper has explained the key legal commercial component of the LNG trading at first through the analysis of the package of terms, which may be contained in the LNG SPA, the LNG trading agreements with a special focus on the charterparty and the Model Agreement for the use of an LNG Facility in the region of Greece. Afterwards, the analysis expanded on the non-contractual liabilities that may occur by the environmental behavior of the parties to those agreements. Last issues concerning the resolution of disputes deriving from the execution of the above contracts have been dully scrutinized.

More specifically this paper investigated the necessity of the analytical drafting of the LNG SPAs and their interfacing with the charterparties as those were analyzed in the respective chapter. Particularly in the chapter concerning the shipping agreements, there was a thorough analysis on the main model charterparties existing nowadays in the LNG supply and chain market, by taking as examples a time charterparty and a voyage charterparty. The next chapter had as the key issue of analysis the Greek, EU and International legal framework concerning the non-contractual liability deriving from the environmental pollution and downgrading and the last chapter focused mainly on the most appropriate way of solving possible disputes between the parties.

6.2 Limitations and Recommendations for Further Research

This research generally achieved the objectives that it attempted to cover. Nevertheless, there were some restrictions in it, and future deepening in these areas could reach a better understanding of the related issues.

First of all, it should be noticed that the lately involved LNG market is relatively something new in comparison to other forms of energy and therefore has not been dully scrutinized. Despite the fact that the LNG trading is an internationalized activity, the lack of an international regulatory framework can cause ambiguities as regards the interpretation of the relevant LNG agreements and

the LNG trading activities, but it sometimes makes it difficult to find academic respective interpretative solutions. For example, because in some cases academic approach is difficult, when a person is contracted with an another it is advisable first to make a research on who is the person it is about to come to an agreement, more specifically, if probably its assets are placed, for example, in countries that are not subject to international regulations and agreements that compel that party to commit to what was agreed, then it would be better to consider again the viability of the transaction.

Furthermore, although some of the greatest disputes in the history of trading are attributable to LNG sector, the fact that those disputes are mainly conducted by arbitration and arbitrational courts with high level of confidentiality, which essentially allows only press releases, result on the fact that no significant analysis can take place as regards the casuistry of those disputes in order to be able to scrutinize the particular disputed events.

6.3 Importance of this Research

The future of the LNG sector for the next years will be formed by increased gas demand and supply. As the LNG trading contracts will increase in the upcoming with the emergence of the spot market, an analysis of these contracts, as the one attempted here, will be crucial for the straightforward and thorough understanding of the relative compound issues.

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