

## RIGHTS OF STATES REGARDING UNDERWATER CABLES AND PIPELINES

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*This article discusses the legal nature and public law aspects of cross-border land and submarine cables and pipelines, together with the relevant provision of the Energy Charter Treaty and the United Nations Convention for the Law of the Sea (private law aspects, such as contracts, insurance and prices are not discussed). A number of legal issues concerning submarine cables and pipelines are recognised as deficiencies of the current legal framework.*

### 1. INTRODUCTION

The article explores the rights and duties of States regarding the laying and operation of the underwater/submarine cables and pipelines.

The legal framework of submarine cables and pipelines is more developed in international law, although a need for similar regulation for land based cables and pipelines is recognised by the international community. As the territorial sea of each Coastal State falls under the full State's jurisdiction, the submarine cables and pipelines in that zone are governed by the same legal regime applicable for land cables and pipelines. In other maritime zones, the rules of the Law of the Sea Convention regulate the rights of laying and operation of submarine cables and pipelines, and the rights of States to oppose such undertakings. The Energy Charter Treaty defines the nature and principles of the energy materials trade and transit. These two Treaties, in conjunction with national legislation, are sufficient for the successful regulation and operation of cross-border land and submarine cables and pipelines. Usually, participating States and companies sign special international treaties and agreements, defining contractual terms, conditions and the applicable law.

### 2. HISTORICAL BACKGROUND

Submarine cables and pipelines date back to the mid 19th century, when the first telegraphic cables were laid down in rivers and harbours. The first major telegraphic cable instalment was placed between England and France in 1851 (soon to be followed by telegraphic cables connecting other European countries, and the United States, with Canada). In 1858, the first trans-Atlantic telegraphic cable was laid by Great Eastern, connecting Ireland and Newfoundland, but failed shortly after the start of operation, and was replaced in 1866 (first trans-Pacific submarine cable was laid in 1902). In 1884 the first underwater telephone cable service connected San Francisco and Oakland. At this time, the first land oil pipelines began to emerge in the United States, with cross-country crude oil pipelines commencing operations in 1905.<sup>1</sup> The first cross-border oil pipeline from Kirkuk to Banias and Tripoli commenced operations in 1934. Starting from the 1920s, short-wave radio superseded cables, but the true breakthrough for telecommunication came in 1956, with the successful laying of the first trans-Atlantic telephone cable. In 1985, the first fibre-optic cable connected Tenerife and Gran Canaria (soon to be followed by the fibre-optic cable between the United Kingdom and Belgium in 1986), and in 1988, the first trans-Atlantic fibre-optic cables were placed in service.

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<sup>1</sup> One of the earliest legislation in the field, the *Hepburn Act 1906*, defined the pipeline as common carriers, and introduced the requirement of offering pipeline services on equal basis to all shippers.

Today, according to the International Cable Protection Committee, underwater telecommunication cables hold the predominant role of over 95% of international voice and data traffic, with the advantages of high reliability, capacity and security, cost-effectiveness on major telecommunication routes, and avoidance of the delays present in satellite traffic. Additionally, almost 100% of the transoceanic Internet traffic is relayed through submarine cables.

Modern pipelines provide a safe and environmentally friendly method of transporting oil, gas, fluid carbon dioxide, hydrogen, gas liquids, chemicals and other material. Additionally, they are the cheapest method of oil and gas transportation.<sup>2</sup> It is expected that the demand for pipelines will continue to grow, due to the fact that the traditional source fields are being depleted, and the new sources are often landlocked, or require great transit distance (especially in the case of gas materials).

### 3. CABLES AND PIPELINES IN THE TERRITORIAL WATERS

Article 2 of the United Nations Convention on the Law of the Sea<sup>3</sup> (UNCLOS) states that the sovereignty of the Coastal State extends to its territorial and archipelagic waters.<sup>4</sup> A permission and consent of the Coastal State is necessary to lay a submarine cable or a pipeline in that area. The Coastal State has full rights to impose transit charges. There is a possibility for the Coastal State to set conditions regarding the track of the cable and its dimensions.

Therefore, the laying of the submarine cables and the pipelines in the territorial (and archipelagic<sup>5</sup>) waters is completely regulated by the national law of the Coastal State.<sup>6</sup> In connection to this, the right of “innocent passage” may be restricted in order to protect submarine cables (Art 21(1)(c)<sup>7</sup>). Parallel to this, there is in existence international law and practice that regulates such undertakings, and/or instructs national regulation on what type of norms to adopt, and what sort of a legal and political framework to promote.

<sup>2</sup> For a comparison with rail, road and tanker transportation, see G Raballand, and F Esen, “Economics and politics of cross-border oil pipelines – the case of the Caspian basin”, Springer-Verlag 2006, AEJ 5 (2007), 133-146, at 140-141.

<sup>3</sup> United Nations Convention on the Law of the Sea of 10 December 1982 (UNCLOS) (BHBI 1994 II 1799) (UN Doc A/CONF 62/122 with Corr 3 and Corr 8; UNCLOS III, Official Records, Vol XVII (1984) 151-221; ILM Vol 21 (1982) 1261-1354), signed in 1982 and came into force in 1994 after 60 countries ratified it.

<sup>4</sup> In addition, Art 33 of the UNCLOS provides that under the contiguous zone the Coastal State has a right of prevention and punishment of infringement of its customs, fiscal, immigration and sanitary regulations.

<sup>5</sup> Article 51(2) restricts the rights of the Archipelagic State: “Existing agreements, traditional fishing rights and existing submarine cables

2. An archipelagic State shall respect existing submarine cables laid by other States and passing through its waters without making a landfall. An archipelagic State shall permit the maintenance and replacement of such cables upon receiving due notice of their location and the intention to repair or replace them”, UNCLOS Convention, op cit n 3.

<sup>6</sup> A ship used for laying of the submarine cables or pipelines is not enjoying the right of “innocent passage” (“innocent passage” implies continuous and expeditious passage with no activities directed towards actions other than the passage).

<sup>7</sup> Article 21: “Laws and regulations of the coastal State relating to innocent passage

1. The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of all or any of the following:

(c) the protection of cables and pipelines”, UNCLOS Convention 3.

### 3.1 Pipelines

As defined in the Encyclopedia of Public International Law, a (submarine) pipeline is a "... connected series of pipes with pumping and control devices for the conveying of liquids, gases, or finely divided solids".<sup>8</sup> Submarine pipelines in the territorial waters follow same legal norms that apply to the land based pipelines. In addition to the various national laws' regulations, a number of international rules regulate land-based pipelines and the transit of goods through them. Some regulate open trade principles, like the General Agreement on Tariffs and Trade (GATT)<sup>9</sup> replaced by the World Trade Organization (WTO), which was concentrated on reducing the barriers on trade (based on tariffs, quantitative restrictions and subsidies). Some, like the 1921 Barcelona Convention and the 1921 Barcelona Statute on the Freedom of Transit,<sup>10</sup> insist on the freedom of access to the means of transport (in this case, a river way) and the freedom of transit. The Convention on Transit Trade of Land-Locked States 1965<sup>11</sup> and the International Ministerial Conference 2003<sup>12</sup> are further attempts to regulate the transit on an international level. Principles promoted by the mentioned treaties form the basis of the *legal rationale* in the trade regulation, but are not meant to deal with specific issues connected to the transport of energy materials. Several regional treaties deal with the cross-boundary pipelines, but are restricted in the scope of application.<sup>13</sup> For that reason, the international community has devised the Energy Charter Treaty that deals specifically with the cross-boundary pipelines on a global level.

#### 3.1.1 General Points

In order to understand the provisions of the Energy Charter Treaty, it is necessary to mention a number of legal issues<sup>14</sup> that need to be addressed before the construction phase of the pipeline project can commence. Those include the political will of the involved States to support and oversee the project, legal framework of the project based on the national and international law, and legal construction of the operational phase of the project ensuring that the transit will not be unlawfully disrupted.

#### 3.1.2 The "Cross-Border" Nature of the Oil and Gas Pipelines

Due to the fact that the sources of the resources in question, oil and gas, and the prospective buyer markets are usually quite distant, oil and gas pipelines often cross territories of two or more states. Such cross-border pipelines are defined as: "... a pipeline that has its origin in one

<sup>8</sup> R Lagoni, "Pipelines", in R Bernhardt (ed), *Encyclopedia of Public International Law*, Max Planck Institute for Comparative Public Law and International Law, vol III, (1992), 1033-1036, at 1033-1034.

<sup>9</sup> A comprehensive web reference for the GATT documentation is available at the CIESIN Thematic Guide, [www.ciesin.org](http://www.ciesin.org), last visited on 19 May 2010.

<sup>10</sup> The Barcelona Convention and Statute on Freedom of Transit, 20 Apr 1921 (LNTS, Vol 7, at 11).

<sup>11</sup> United Nations Convention on Transit Trade of Land-Locked States, 8 July 1965, (597 UNTS).

<sup>12</sup> For more information visit the UNESCAP at: [www.unescap.org](http://www.unescap.org), last visited on 19 May 2010.

<sup>13</sup> See for example the Agreement Concerning Transit Pipelines concluded by the United States and Canada, 28 January 1977 (UST, vol 28, at 7451).

<sup>14</sup> The focus of the Article is the legal framework of submarine cables and pipelines, and the rights of States according to that framework. However, most interesting questions connected to the existence of the pipelines are those of political and economical nature. According to the Rabbalund and Esen (op cit n 2), pipeline economics are based on: economics of sale, long-life, Government involvement, and market failures. Political issues (Rabbalund and Esen) include: multiple parties with different interests, no overreaching jurisdiction to regulate the activities, and the problem of profit sharing.

nation and that traverses one or more other nations along its route.”<sup>15</sup> This implies that such pipeline crosses several different legal regimes. At the same time, it is important to take into consideration the existing international regulation and special treaties that are usually signed to accompany the construction and operation of a cross-border pipeline. A blending of domestic and international rules into a uniform legal framework is necessary as to achieve a satisfactory level of legal stability for the investment, security of the construction and operation, and appropriate guarantee and security of the free and uninterrupted transit of the energy material.<sup>16</sup>

### 3.1.3 Jurisdiction

Regarding the jurisdiction,<sup>17</sup> cross-border pipelines usually adopt one of the following two models:

- (a) Single Unified Asset;
- (b) Series of Connected Domestic Pipelines.

A Single Unified Asset Pipeline Project looks into domestic laws of the involved countries and international law to derive common definitions on the ownership, transport terms, contract rights and duties, dispute settlement system and applicable law. Although domestic law is still applicable within its’ own jurisdiction, a harmonized understanding of the crucial legal elements of the project ensures the uniform approach to the legal issues no matter at which part of the pipeline they might arise.

A Series of Connected Domestic Pipelines Project implies that each portion of the pipeline passing through a different country will be treated as a separate asset, ruled entirely by the legal regime of that country. The perceivable disadvantage is the fact that the terms and conditions of the pipeline operation are not necessarily equal in each separate jurisdiction, therefore creating a multiplicity of transport agreements for each separate sector of the pipeline.

### 3.1.4 Ownership

Regarding the ownership, the most common ownership models are the following:

- (a) Incorporated Joint Venture;
- (b) Unincorporated Joint Venture.

The Incorporated Joint Venture Model is an ownership model where the participants in the project create a limited liability company with a separate legal identity, specially formed for the purpose of the project. The participants in the project are the shareholders of the company. The amount of shares held determines the extent of the liability. The company is run by the board of directors, comprised of the representatives of the participants in the project. The revenue of the company is distributed through the dividends that are declared out of profits.

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<sup>15</sup> M Dulaney and R Merrick, “Legal Issues in Cross-Border Oil and Gas Pipelines” (2005) 23 J Energy Nat, Resources L, 247-265 at 247.

<sup>16</sup> For an excellent study on the cross-border oil and gas pipelines, see: “Cross-Border Oil and Gas Pipelines: Problems and Prospects”, Joint UNDP/World Bank Energy Sector Management Assistance Programme (ESMAP), June 2003.

<sup>17</sup> For an excellent analysis of the question of jurisdiction regarding the pipelines in the North Sea, see M Roggenkamp, “Petroleum Pipelines in the North Sea: Questions of Jurisdiction and Practical Solutions” (1998) 16 J Energy Nat Resources L 93. See also Dulaney and Merrick, op cit n 15, for a discussion of the two models, “Single Unified Asset” and “Series of Connected Domestic Pipelines”.

An example of such an undertaking is the Nord Stream Pipeline Project,<sup>18</sup> a gas pipeline linking Russia and the European Union through the Baltic Sea.<sup>19</sup> Four companies are the shareholders. According to the information published by the project participants,<sup>20</sup> all four companies<sup>21</sup> have a “solid financial foundation”, and the capital reserves during the construction period are set to be in the amount of €2.8 billion. Regarding the insurance issues, the information on the website states that the “project will be insured according to a Construction All Risks policy, which will involve a panel of underwriters comprised of major names in the insurance market”.<sup>22</sup> Regarding the taxation issues, it is stated that as “a gas transport company, Nord Stream will generate its revenues from transport fees”, which will be “taxed in various European countries, in accordance with the company’s operational locations”.<sup>23</sup>

The Unincorporated Joint Venture Model is a type of undertaking where a contractual agreement is entered upon by a number of project participants, each of them contributing to the project by various means (investment, construction, property), and each of them having the right to use the capacity of the pipeline for their own needs. The implementation of the project is managed by a management committee, and the operation of the pipeline by the management company.

### 3.1.5 Taxation

In order for a state to take an interest in the pipeline project, especially if the state is a full transit state, there needs to exist a certain number of benefits of the participation. The most important one is the collection of the transit fees (*pipeline taxation*). Dulaney and Merrick<sup>24</sup> refer to the most commonly used types of taxation:

- (a) income tax imposed on the revenue derived by the pipeline owners;
- (b) land taxes for land access granted to the pipeline owners;
- (c) transit fees for the performance of the transport service;
- (d) direct Governmental participation and partaking of the shares.

<sup>18</sup> This pipeline project is part of the Trans-European Energy Network, an European Council Action Plan “Energy Policy for Europe” with an aim of building 10 more pipelines (one of which is the Nord Stream) in order to establish the security of energy supply for the European Union; for more information on the EU Energy Policy, see T V Borre, “European Energy Law”, Nord Stream Pipeline Conference, CAU Kiel, February 2009. On a related issue, the project South Stream is bound to commence into operation in 2015, with the aim of bringing 63 billion m<sup>3</sup> of gas annually to Central and South-East Europe (although the Italian Gazprom partner, ENI, suggested that there might be a possibility of joining the South Stream and Nabucca projects, such venture is unlikely – see: <http://energetika-net.hr/plin/vijesti/8053> - Nabucca is designated to start in 2014, with the aim of bringing additional 31 billion m<sup>3</sup> of gas annually from countries other than Russia).

<sup>19</sup> More on the Project, see: <http://www.nord-stream.com/index.php>, last visited on 19 May 2010. The overall length of the pipeline will be 1200 km, the total cost estimation amounts to €7,4 billion, and the projected capacity is set to 55 billion m<sup>3</sup> of gas annually – see: <http://www.isn.ethz.ch/isn/Current-Affairs/Security-Watch/Detail/?ots591=4888caa0-b3db-1461-98b9-e20e7b9c13d4&lng=en&id=88479> - last visited on 19 May 2010; On the side note, a number of regional and international conventions dealing with environmental, dispute settlement and other issues, had to be taken into consideration prior to the commencing of the construction phase (more on the subject is available below 3.1.7 Environmental Issues).

<sup>20</sup> Available at: [www.nord-stream.com/en/faq/faq-economic.html](http://www.nord-stream.com/en/faq/faq-economic.html), last visited on 19 May 2010.

<sup>21</sup> Companies and their shares in percentage: OAO Gazprom (51%), Wintershall Holding AG (20%), EON Ruhrgas AG (20%), N.V.Nederlandse Gasunie (9%).

<sup>22</sup> Op cit n 20.

<sup>23</sup> Ibid.

<sup>24</sup> Op cit n 15, at 264.



According to Malecek,<sup>25</sup> the main benefits that the transit states enjoy are huge foreign investments (resulting in short-term and long-term creation of jobs, and possible development of domestic energy industry) and the collection of the transit fees. Additional benefit is the strengthened national security due to the fact that other countries take interest in the peaceful political and legal environment of the transit state. Another beneficial factor to be taken into consideration are the energy needs of the transit state that can also be secured by the passing pipeline, and the energy export capabilities through the passing pipeline. However, both import and export factors can have a negative impact on the transit state, because commencing the operation of the pipeline might cause a rise in the energy prices, thus making the import of energy more expensive, or, due to the opening of additional sources of energy products, the transit state that exports its own energy resources might lose some of its export income.

### 3.1.6 Land Acquisition

The State has a complete right to regulate by its national laws the acquisition of the land tenure. Therefore, the prospective project undertakers will need to, in addition to the negotiation with the landowners regarding survey of the pipeline route and obtaining the necessary legal rights of the property, fulfil criteria set by the State regarding the planning, safety and environmental aspects. In the case of cross-border pipelines, this process can prove to be extremely difficult without the cooperation of the transit States in question (see below 3.2.2 Model Agreements, on how this is resolved in the practice).

### 3.1.7 Environmental Issues

Whereas submarine cables pose no serious threat to the environment (although a number of environmental impacts can be observed), it is generally accepted that the submarine pipelines raise more potential dangers for the marine environment. Therefore, every submarine pipeline project should encompass a serious study on the environmental impact, potential hazards, and liability regulations. A good example of such an undertaking can be observed regarding the previously mentioned Nord Stream project, where a comprehensive Environmental Management Program was prepared in order to tackle these issues. A wide range of regional and international documents' requirements needed to be satisfied in order to obtain the so-called "full-scale Environmental Impact Assessment" (EIA). The documents in question included the: Espoo Convention, 1992 Baltic Sea Convention, EIA Directive, EC Habitats and EC Birds Directives, ELD Directive, Aarhus Convention, Convention on the Biological Diversity, Bonn Convention/ASCOBANS, 1996 London Protocol to the 1972 London Convention, 1972 World Heritage Convention, 1958 Geneva Conventions, UNCLOS and the Energy Charter Treaty.<sup>26</sup>

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<sup>25</sup> S J Malecek, "Pipeline transit state: How can the legal regime meet investor objectives and internal development needs? The case of Georgia and Caspian exports", Centre for Energy, Petroleum and Mineral Law & Policy, University of Dundee, Research Paper for International Law of Natural Resources, January 2001, at 2-3.

<sup>26</sup> 1991 ESPOO Convention on Environmental Impact Assessments in a Transboundary Context (obligations of parties to assess the environmental impact; general obligation of states to notify and consult each other on all major projects under consideration with trans-border impact; basis for an environmental impact assessment procedure that enables public involvement; submarine pipelines regulation through the Appendix VIII of the Convention ["Proposed Activity"]) – text available at: <http://www.unece.org/env/eia/eia.htm> - last visited on 19 May, 2010; 1992 Convention on Biological Diversity (obligation to conserv biological diversity; protected areas;) – text available at: <http://www.cbd.int/> - last visited on 19 May, 2010; 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area - The Helsinki Convention - HELCOM (obligation to prevent and eliminate [transboundary] pollution [inter alia, from dumping, exploration and

In addition to this, a broad range of national legislation needed to be adhered to. This, amongst various provisions, included the following norms: sea-bed mining legislation, water legislation, building legislation, regional planning legislation, emission control legislation, natural conservation legislation, and energy legislation.

The environmental impact occurs during the following stages of a pipeline project: “design and exploration work; construction (marine section of pipeline mounting); testing and pre-commissioning work (water discharge after hydrotesting); [project – ed] exploitation; and, decommissioning”.<sup>27</sup> Occurrences of environmental impact may include the following examples:

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exploitation of the seabed]; protection of the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation; recommendations directly transferred into the parties policy and legislation; requirement that planned activities with possible transboundary impact include: notification, consultations, cooperation with EIA, and joint measures to prevent and eliminate pollution; submarine pipelines regulation through the Art 12 and Annex VI of the Convention [“Associated Activity”]) – text available at: <http://www.helcom.fi/> - last visited on 19 May, 2010; 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter – The London Convention (obligation to protect the marine environment from pollution; waste prevention) – text available at: [http://www.eisil.org/index.php?t=link\\_details&id=1256&cat=651](http://www.eisil.org/index.php?t=link_details&id=1256&cat=651) - last visited on 19 May, 2010; 1991 Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS), combined with the 1979 Convention on Migratory Species – The Bonn Convention (habitat conservation, pollution mitigation) – texts available at: <http://www.ascobans.org/index.html> and <http://www.cms.int/> - last visited on 19 May, 2010; 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (duty of protection of the cultural and natural heritage – see also the 2001 Convention on the Protection of the Underwater Cultural Heritage [text available at: [http://en.wikipedia.org/wiki/UNESCO\\_Convention\\_on\\_the\\_Protection\\_of\\_the\\_Underwater\\_Cultural\\_Heritage](http://en.wikipedia.org/wiki/UNESCO_Convention_on_the_Protection_of_the_Underwater_Cultural_Heritage) - last visited on 19 May, 2010;]) – text available at: <http://whc.unesco.org/en/conventiontext> - last visited on 19 May, 2010; 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (human rights in environmental context; environmental information) – text available at: <http://www.unece.org/env/pp/> - last visited on 19 May, 2010; Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora - The Habitats Directive – text available at: [http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index\\_en.htm](http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm) - last visited on 19 May, 2010; Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds – The Birds Directive – text available at: [http://ec.europa.eu/environment/nature/legislation/birdsdirective/index\\_en.htm](http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm) - last visited on 19 May, 2010 (for a detailed analysis of the Habitats and Birds Directives, see D Owen, “EC Habitats Directive and EC Birds Directive”, *The North Stream Pipeline: Legal, Economic and Environmental Issues*, Kiel, 2009); Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment – text available at: <http://ec.europa.eu/environment/eia/eia-legalcontext.htm> - last visited on 19 May, 2010; Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (public law liability regime imposing obligations on the operators; “environmental damage”; fault/no-fault liability; for a detailed analysis of the ELD Directive, see G Betlem, “The Baltic Sea Pipeline and EU Environmental Liability: Scope Matters”, *The North Stream Pipeline: Legal, Economic and Environmental Issues*, Kiel, 2009); – text available at: <http://ec.europa.eu/environment/legal/liability/index.htm> - last visited on 19 May, 2010; For a summarised overview of some of the above named treaties, see C Redgwell, “The Nord Stream Pipeline: International Environmental Law Issues”, *Nord Stream Pipeline Conference*, CAU Kiel, February 2009; K Kim, “Ostseepipeline “Nord Stream” ein meersumweltrechtliches problem”, *Zbornik Radova Pravnog fakulteta u Splitu*, god. 45, 4/2008, at 705-725; and S Vinogradov, “Challenges of the Nord-Stream: Streamlining the International Legal Framework for Submarine Pipelines”, *Nord Stream Pipeline Conference*, CAU Kiel, February 2009);

<sup>27</sup> “Eco-check for submarine pipelines in the Baltic Sea”, WWF Germany (Frankfurt, 2006), at 6.

noise nuisance; seabed habitat, benthic bio-community, birds' and marine mammals' habitats disruption; toxic waste pollution; difficulties for navigation and fishery; air pollution; construction hazards (accidents, collisions, fuel spill); testing-period water discharges (affecting flora-fauna, tourism); pipeline operational-phase accidents.<sup>28</sup>

The North Stream environmental survey program suggested a number of recommendations to the concerned parties: harmonization of formal requirements, approval procedures and environmental standards by all the concerned parties; joint route planning with public participation; harmonized compensation scheme (including the financial remuneration) for environmental impacts (including the EEZ); best available technology usage; formulation of environmental quality objectives; and, risk management plan. These recommendations could be taken into a consideration for a wider, perhaps global implementation.

### 3.2 Energy Charter Treaty

The Energy Charter Treaty is a multinational legally binding instrument that deals with the transit of energy products and materials. The Treaty's purpose is to "promote energy security through the operation of more open and competitive energy markets, while respecting the principles of sustainable development and sovereignty over energy resources".<sup>29</sup>

The Energy Charter Treaty and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects entered into force in 1998, numbering 53 members (two of which are European Community and Euratom), with 48 ratifications (or approvals or accessions), two cases of provisional application of the Treaty (Belarus and Russian federation), and three signatories.<sup>30</sup>

The fundamental principles<sup>31</sup> of the Energy Charter Treaty are the strengthening of the rule of law on energy issues, creation of the set of rules to be respected by all members, and mitigation of the risks associated with energy-related investment and trade. The provisions of the Treaty aim to protect the foreign investment (fair and equitable conditions for investments, protection against expropriation and nationalization), ensure non-discriminatory cross-border energy transit (open and competitive market based on commercial terms, without anti-competitive behavior), establish the resolution of conflicts system, promote energy efficiency and minimise negative impact to the environment.

According to the Treaty, the term "transit" is defined (Art 10/10(a)(i)) as the "transport of goods (energy materials and products – ed) from a country, through at least one other country, to a third country".<sup>32</sup> The transport facilities included under the provision of the Treaty (Art 10/10(b)) are: high-pressure gas transmission pipelines, high-voltage electricity transmission grids and lines, crude oil transmission pipelines, coal slurry pipelines, oil product pipelines and other fixed facilities specifically handling energy materials and products (eg port terminal facilities).

Contracting parties to the Treaty have a duty (Art 7/1) to facilitate the transit, ensure that the freedom of transit is respected ("without distinction as to the origins, destination or ownership...

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<sup>28</sup> For a detailed analysis, see, eg *ibid*, at 8-9.

<sup>29</sup> Available at: [www.encharter.org](http://www.encharter.org), last visited on 19 May 2010.

<sup>30</sup> The Energy Charter Secretariat, "Status of Membership – Energy Charter Treaty", May 2007, available at: [www.encharter.org](http://www.encharter.org), last visited on 19 May 2010.

<sup>31</sup> For more on the Energy Charter Treaty see: "The Energy Charter Treaty – A Reader's Guide", Energy Charter Secretariat, available at: [www.encharter.org](http://www.encharter.org), last visited on 19 May 2010.

<sup>32</sup> *Op cit* n 31, at 29.



or discrimination as to pricing on the basis of such distinctions”), and prevent unreasonable delays, restrictions or charges.<sup>33</sup>

Two features that deserve closer attention are the negotiated Transit Protocol, and the guidelines for non-legally binding Model Agreements.

### 3.2.1 Transit Protocol

The Transit Protocol<sup>34</sup> seeks to elaborate the rules regarding the transit of energy products and materials as stated in the Art 7. Namely, it seeks to ensure that the energy transit is not interrupted,<sup>35</sup> that the access to transit is based on transparent and non-discriminatory basis, that negotiations are conducted in good faith, and that the tariffs are objective, reasonable and non-discriminatory.

### 3.2.2 Model Agreements

The Energy Charter Secretariat has prepared two Model Agreements:

- (a) Model Intergovernmental Agreement;
- (b) Model Host Governmental Treaty Agreement.

The Model Agreements are designed to assist both Members and non-members of the Energy Charter Treaty in negotiation and implementation of the pipeline projects.<sup>36</sup> Both Model Agreements aim to<sup>37</sup> facilitate the project negotiations, ensure transparency regarding the construction, operation and investment, and, reduce the costs of implementation.

(a) The Model Intergovernmental Agreement (IGA) is a model international treaty signed between the States involved in the pipeline project. The IGA model focuses on the infrastructural issues, such as the construction, cooperation and provision of land rights. The agreement can also extend its scope of applicability to the many of the issues contained in the Energy Charter Treaty. The IGA can therefore regulate issues such as: enactment of special legislation necessary for the implementation and operation of the pipeline project; freedom of transit; land rights approvals, question of ownership, governmental approvals and licenses, usage of equipment and personnel, tariff regime and taxation, and dispute settlement procedure.<sup>38</sup>

<sup>33</sup> The Energy Charter Treaty does not oblige its Members to grant third party access rights. However, there are examples where the third party access is the core of the energy policy. The European gas markets are regulated by the European Gas Directive (see also EC Regulation 1775/2005 on access to gas grids and EC antitrust provisions), where the third party access is seen as a key instrument in developing a competitive gas market; for more on this subject see K B Moen, “The Gas Directive: Third party transportation rights – But to what pipeline volumes?” (2002) 21-1 *Journal of Energy and Natural Resources Law* CEPMLP Gateway, University of Dundee.

<sup>34</sup> The Protocol is still in negotiation, for more information and the draft of the Protocol, see: <http://www.encharter.org/index.php?id=37&L=0>, last visited on 19 May 2010.

<sup>35</sup> The recent Russia-Ukraine dispute is exemplary on the serious negative impacts a cut in flow can produce, and how important it is to establish mechanism to prevent that; For more about this dispute, see: <http://www.reuters.com/article/topNews/idUKTRE5062Q520090107?sp=true>, last visited on 19 May 2010.

<sup>36</sup> For a detailed analysis of the negotiation and the provision of these two Model Agreements, see G Goolsby and M Rowley, “Building a Cross-Border Pipeline”, Baker Botts LLP, available at: [www.bakerbotts.com](http://www.bakerbotts.com), last visited on 19 May 2010.

<sup>37</sup> Energy Charter Secretariat, “Model Intergovernmental and Host Governmental Agreements for Cross-Border Pipelines”, 2nd ed, available at: [www.encharter.org](http://www.encharter.org), last visited on 19 May 2010.

<sup>38</sup> For more on the dispute settlement procedure under the Energy Charter Treaty see R Happ, “Dispute Settlement under the Energy Charter Treaty”, Nord Stream Pipeline Conference, CAU Kiel, February 2009.

As an example, following the Memorandum of Understanding between Turkish Petroleum Pipeline Company (BOTAS) and the Greek Petroleum Pipeline Company (DEPA) by which Greece and Turkey committed themselves to the interconnection of their national gas pipeline grids in order to supply gas to the EU,<sup>39</sup> the project Bakü-Tifilis-Ceyhan (BTC) Main Export Crude Oil Pipeline Project was initiated (the first leg of the East-Wing Energy Corridor).

The next step was to sign project agreements. The first one to be prepared was the Intergovernmental Agreement between the Republic of Turkey, the Azerbaijan Republic and Georgia relating to the Transportation of Petroleum via the Territories of The Azerbaijan Republic, Georgia and the Republic of Turkey through the Bakü-Tifilis-Ceyhan Main Export Pipeline. The Agreement served to: define host countries' mutual responsibilities and principles of their support; set common principles regarding the free transit of petroleum;<sup>40</sup> set the standards for securing the facilities and personnel, constructing and operating of the BTC system, as well as other technical, environmental and social concerns; demonstrate the political, legal and commercial support for the project; establish a stable legal and fiscal regime to attract investment for the Project; and, establish the Intergovernmental Commission to facilitate the implementation and the supervision of the Agreement.<sup>41</sup>

(b) The Model Host Governmental Treaty Agreement (HGA) is a model agreement between the host government and the pipeline owner and/or investor. The HGA model deals with rights and obligations of the signatories, standards of safety, questions of liability and other issues relevant to the implementation of the project. Since the project participants (owners, operators, investors) do not participate in the IGA agreements, it is necessary for them to acquire certain rights and guarantees. Therefore certain issues already dealt within the IGA agreement will again be regulated in the HGA agreement.

In the Baku project, the Host Government Agreement signed between the Turkish Government and the Project Representatives aimed to: establish host governments' representation and warranties; ensure free transit of oil; facilitate the implementation of the project; determine the liabilities and compensations scheme for failure to fulfill the obligations; establish taxation module (transit fee to be paid by the investors as corporation tax; transit fee in initial years to be kept low so as to support further exploration of the oil fields); set limits of liabilities; and constitute international arbitration in case of a dispute. In addition to this, the Turkish Government committed itself to provide the security of the pipeline and assist the project participants in the land acquisition and issuance of the necessary permits.<sup>42</sup>

### 3.2.3 Other Agreements

This however does not exhaust the list of possible agreements that can be prepared for individual projects. In the example of the Bakü-Tifilis-Ceyhan Pipeline, two more types of agreements were used.

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<sup>39</sup> Reha Aykul Muratoğlu, "Bakü-Tifilis-Ceyhan Pipeline", *Natural Gas Transit & Storage in Southeastern Europe*, Istanbul, 2002, at 2.

<sup>40</sup> Non-discriminatory treatment; freedom of transit; harmonization of the legal framework; implementation of the appropriate supranational regulatory rules; full protection of the pipeline and the associated installations, their construction and the right of land usage.

<sup>41</sup> For a similar example, the West African Gas Pipeline (WAGP), see M Dulaney and R Merrick, *op cit* n 15, at 252-253.

<sup>42</sup> Republic of Azerbaijan signed a similar agreement with the project participants; for a similar example, the Caspian Pipeline, see M Dulaney and R Merrick, *op cit* n 15, at 254.

The Turnkey Agreement (TA) was signed between the Turkish Petroleum Pipeline Corporation (BOTAŞ) and the MEP Participants. This agreement regulated the construction phase of the pipeline within the Turkish portion of the project (a Lump Sum Fixed Price Contract for realization of the Turkish portion of the Pipeline including the Ceyhan Marine Terminal, three phases (engineering, land acquisition, construction phase), performance requirements of the MEP System, limits of liabilities, and compensations due to the delays). Although the State is not a signatory of such a type of an agreement, in a case of the state-owned companies, this can have direct impact on the role of the State.

Following the TA, the Turkish Government Guaranty (GG) was signed by the Turkish Government and the MEP Participants, by which the Turkish Treasury guaranties the payment of obligations of BOTAŞ under the TA.

In conclusion, the role of the Government<sup>43</sup> in all of the above mentioned agreements is to create a clear and stable investment regime that attracts investment, create regulatory and working framework, define energy policy favorable to gas trade, and facilitate projects through regional co-operation.

### 3.3 Cables

According to the Encyclopedia of Public International Law, a submarine cable is defined as a “means of communication laid on the sea-bed between two terminal points”.<sup>44</sup> Traditionally, the questions of jurisdiction, ownership and applicable law are dependent on the law of the Sending State, no matter whether the Receiving State sends back the communication. Thus, the Sending State law will govern all relevant questions of the transit, fees, and information transferred.

#### 3.3.1 ICPC Recommendations for the Protection of the Submarine Cables

The International Cable Protection Committee (ICPC) is an international organization consisting of governmental administrations and commercial cable companies. The ICPC’S principal purpose is to “promote the safeguarding of submarine telecommunication cables against manmade and natural hazards”.<sup>45</sup> The main activities of the organization are to ensure the adequate supply of the cable warning charts (ensuring that the worldwide navigation charts are kept up-to-date), and to produce to a set of guidelines to assist both the cable owners and public authorities. Among 13 ICPC Recommendations,<sup>46</sup> the following are relevant for the rights and duties of the States:

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<sup>43</sup> According to the Cross-border Gas Trade Conference – IEA, March 2002.

<sup>44</sup> R Lagoni, “Cables, Submarine”, in: R Bernhardt (ed), *Encyclopedia of Public International Law*, Max Planck Institute for Comparative Public Law and International Law, vol I, (1992), 516-519, at 516.

<sup>45</sup> Available at: [www.iscpc.org/](http://www.iscpc.org/), last visited on 19 May 2010.

<sup>46</sup> Other ICPC Recommendations are: Recommended Co-ordination Procedures For Repair Operations Near In-Service Cable Systems (ICPC Recommendation No 4, Issue: 7A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008), Procedure to be Followed Whilst Offshore Civil Engineering Work is Undertaken in the Vicinity of Active Submarine Cable Systems (ICPC Recommendation No 7, Issue: 5A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008), Procedure to be Followed Whilst Offshore Seismic Survey Work is Undertaken in the Vicinity of Active Submarine Cable Systems (ICPC Recommendation No 8, Issue: 7, Issue Date: April 14 2008, International Cable Protection Committee (ICPC Ltd), 2008), Minimum Technical Requirements for a Desktop Study (also know as Cable Route Study) (ICPC Recommendation No 9, Issue: 3, Issue Date: November 2 2007, International Cable Protection Committee (ICPC Ltd), 2008), Minimum Requirements

- (a) Management of Redundant and Out-Of-Service Cables<sup>47</sup> (OOS Cables);
- (b) Recommended Routing and Reporting Criteria for Cables in Proximity to Others;<sup>48</sup>
- (c) Criteria to be Applied to the Proposed Crossing Between Submarine Telecommunications Cables Pipelines/Power Cables;<sup>49</sup>
- (d) Standardization of Cable Awareness Charts;<sup>50</sup>
- (e) Recommended Actions For Effective Cable Protections (Post Installation).<sup>51</sup>
- (f) Planning and Removal Considerations deal with situations where new submarine cables are laid in the position or in the vicinity of an OOS cable (the same provisions apply for the subsea structures and mining of the seabed materials). A limited recovery of the OOS cables through the cooperation of the seabed users is suggested. There is no requirement provided by the UNCLOS (or customary international law) to remove the OOS cables outside of the territorial waters, as there is no full sovereign jurisdiction beyond the limits of the territorial sea. Therefore, such removal is based on the decision of the cable owners. A number of pre-decision and post-decision factors can influence the cable owners to act in such a manner.<sup>52</sup>
- (g) This Recommendation aims to assist the cable owners in reaching a compromise in the situation of the cable crossing. A set of technical instructions is provided to assist the cable owners in choosing the right approach and methods both in communicating and executing planned crossing.
- (h) The Recommendation is a technical assistance document for both the submarine cables and pipelines owners whose cables and pipelines are about to cross each other. Whereas the crossing of two cables does not necessarily require a special agreement by the parties (a simple exchange of “letters of agreement to cross” should suffice), in the case of the crossing of the cable and a pipeline, the ICPC recommends the executing of the special Crossing Agreement (Model Crossing Agreement is drafted by the ICPC). Such an Agreement should cover the issues of liabilities and rights of parties, consequential losses,

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for Load and Lay Reporting and Charting (ICPC Recommendation No 10, Issue: 2A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008), Standardization of Electronic Formatting of Route Position Lists (ICPC Recommendation No 11, Issue: 2A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008), Mechanical Testing of Submarine Telecommunications Cables (ICPC Recommendation No 12, Issue: 2A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008), Proximity of Wind Farm Developments & Submarine Cables (ICPC Recommendation No 13, Issue: 1A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd.), 2008).

<sup>47</sup> ICPC Recommendation No 1, Issue: 11A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008.

<sup>48</sup> ICPC Recommendation No 2, Issue: 9A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008.

<sup>49</sup> ICPC Recommendation No 3, Issue: 9A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008.

<sup>50</sup> ICPC Recommendation No 5, Issue: 7A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008.

<sup>51</sup> ICPC Recommendation No 6, Issue: 7A, Issue Date: January 26 2007, International Cable Protection Committee (ICPC Ltd), 2008.

<sup>52</sup> Safety of navigation, marine environment issues, socio-economic benefits resulting from the removal, claims for damages and insurance issues, alternative usage of the parts of the cable (eg scientific research) and etc.

construction details, maintenance plans, and mutual recognition of the parties operations and limitations of their authority.

- (i) The purpose of this Recommendation is to suggest that appropriate national Hydrographic Offices should be notified every time a new cable installation has been placed, or the existing one has been moved or removed. Subsequently, these notifications should be duly noted on the “Cable Awareness Charts”, so that all interested parties (fishermen, merchant fleets, oil & gas industry and others) would become aware of the cable presence or removal. The Recommendation provides detailed information on what these charts should consist of, depending on the target group.
- (j) These set of instructions direct Public Authorities on how to inform the Fishing Industry about the existence of the cables and their preservation. Additionally, Military Authorities, various Commercial Entities (Oil & Gas Industry, Cable Maintenance Authorities etc), Port Authorities, Hydrographic Offices, Local Authorities, Environmental Authorities, should all receive update information. An emphasis is placed on the development of national legislation on Cable Protection and the establishment of Cable Protection Areas. Additional measures of monitoring the cable corridors via electronic monitoring equipment (radar, vessel monitoring system), air patrol, sea patrol and terrestrial patrol are suggested.

### 3.3.2 Protection of the Submarine Cables in Practice

It is necessary to protect the cables from shipping,<sup>53</sup> fishing<sup>54</sup> and other activities, including the risk of terrorism.<sup>55</sup>

Before the operation of construction and laying of the submarine can commence, a number of criteria needs to be satisfied in order to achieve the necessary standards of safety. It is necessary to select and conduct survey of the possible route/s, calculate impacts of the design and laying to the environment and safety, give proper notification of the position of the cable, and develop maintaining and repair/replacement plan.

Coastal Cable Routes are marked on the nautical charts, with a possibility of establishing a “protection zone”, defined as a legal entity under which all activities possibly harmful to the cables are banned. For example, Singapore and New Zealand have established such protected corridors, banning all commercial activity in that area, and establishing regular boat radar patrols.<sup>56</sup> Iceland has provided for the Global Positioning Systems equipment aboard the ships operating near cables, warning the vessels of the vicinity of the cables.<sup>57</sup>

<sup>53</sup> For an example of a shipping accident resulting in the damage to the submarine cable, see: “Damage to Submarine Cables Caused by Anchors”, Loss Prevention Bulletin, International Cable Protection Committee, 2009.

<sup>54</sup> An excellent study of fishing-related accidents: S C Drew and A G Hopper, “Fishing and Submarine Cables – Working Together”, International Cable Protection Committee, 2009.

<sup>55</sup> Apart from the man-made hazards, the natural hazards include: submarine earthquakes, fault lines & related landslides, density currents and waves, tsunami, storms and sea level rise, other extreme weathers, icebergs and volcanic activity. According to the ICPC, around 70% of the cable faults are caused from man-made hazards (mainly fishing and anchoring, mainly in the water depths of 200m), and around 12% are caused by the natural hazards, Submarine Cable Improvement Group; For a bizarre example of theft of a submarine cable, and a proposal to assume such activities as acts of piracy, see Beckman, op cit n 71, at 15.

<sup>56</sup> Masakuni Kuwazuru, Ryoji Hoshina, “Regulatory Aspects of the Undersea Cable Protection”, KDD Submarine Cable Systems Inc, at 738, available at: [www.scig.net](http://www.scig.net), last visited on 19 May 2010.

<sup>57</sup> Ibid.



Additional measures of protection include: a cable burial in the seabed trenches (1 to 10 metres, usually in water depths to 2 km); designation of non-anchorage areas (where the submarine cables are placed);<sup>58</sup> the creation of cable protection areas<sup>59</sup> (limitation of all activities (like eg fishing) which could potentially endanger the submarine cables); coast guard and naval patrols (preferably joint-State cooperation); radar systems, Long Range Identification and Tracking (LRIT)<sup>60</sup> and Automatic Identification Systems (AIS);<sup>61</sup> and, laws and regulations introducing strict penalties for infringements (including specialized laws on terrorist acts, ensuring the cooperation of States [eg. following the good example of the SUA Convention,<sup>62</sup> and ensuring that the acts against the safety and normal functioning of submarine pipelines and cables are internationally condemned]). All of the afore mentioned should also be implemented in the EEZ.

#### 4. CABLES AND PIPELINES OUTSIDE OF THE TERRITORIAL WATERS

Unlike in the Territorial Sea where a land legal regime of the Coastal State fully applies, in other maritime zones defined by the UNCLOS, the Coastal States cannot enforce the full jurisdiction, but are granted certain rights. The UNCLOS provides a number of rules regarding laying and operation of the submarine cables<sup>63</sup> and pipelines.<sup>64</sup> The Convention also defines conditions necessary to be met in order to obtain the right to lay submarine cables and pipelines, and instructs Member States to adopt national legislation that imposes sanctions on those not respecting the rules.

<sup>58</sup> As an example, see: "Safety of Navigation – Information Concerning Anchoring in the Traffic Separation Scheme in the Straits of Malacca and Singapore", International Maritime Organization, SN1/Circ 282 27 November 2009.

<sup>59</sup> As an example, see: "Submarine Cable (Northern Sydney Protection Zone) Declaration 2007 – Explanatory Statement", Australian Communications and Media Authority, 2007.

<sup>60</sup> The US Coast Guard has been very successful in the implementation of the Maritime Domain Awareness (MDA) project. Both AIS and LRIT systems have been employed. For more on this subject, see J M Krajewski, "Out of Sight, Out of Mind? A Case for Long Range Identification and Tracking of Vessels on the High Seas" (2008) 56 *Naval L Rev* 219.

<sup>61</sup> For information on Port Radar Coverage and Automatic Identification System (AIS), with successful UK case law of determining faults and obtaining compensation, see M Green, "Protecting Cables during Operation Best Industry Practice", CIL Workshop on Submarine Cables and the Law of the Sea 2009.

<sup>62</sup> 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention); 1988 Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf; 2005 Protocol to the 1988 Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf; "International Conference on the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, 1899", International Maritime Organization (London, 2006); Beckman proposes a new convention or an additional protocol to the SUA Convention, that would create a new internationally punishable crime: "The wilful and intentional destruction or damage of submarine telecommunications cables or its infrastructure", see R Beckman, "A New International Convention or a Protocol", CIL Workshop on Submarine Cables and the Law of the Sea 2009; Soons, in addition to SUA, also mentions the 1997 International Convention for the suppression of terrorist bombings (ICSTB) as a good example of legislation of interested when considering an international tool for protection of the submarine cables and pipelines, see A Soons, "Criminal jurisdiction over persons damaging submarine cables", CIL Workshop on Submarine Cables and the Law of the Sea 2009.

<sup>63</sup> For an extensive commentary on the international norms related to the submarine cables, see R Lagoni, "Legal Aspects of High Voltage Direct Current (Hvdc) Cables", LIT Verlag Berlin-Hamburg-Münster, 1999.

<sup>64</sup> For a commentary on international norms regarding the right of laying of submarine pipelines on the Continental Shelf, with an extensive elaboration on an example, see J Crowley, "International Law and Coastal State Control over the Laying of Submarine Pipelines on the Continental Shelf – The Ekofisk-Emden Gas Pipeline" (1987) 56 *Nordic J Int'l L* 40.

#### 4.1 International Regulation Prior to the UNCLOS

Prior to the UNCLOS regime, a few international instruments regulated the laying and operation of the submarine cables and pipelines outside of the territorial sea.<sup>65</sup> Although still in force for some countries, these conventions lack the scope and strength to meet modern demands of cable and pipeline industry.

##### 4.1.1 International Convention for the Protection of Submarine Cables

Following the first trans-oceanic laying of the cable, it became apparent that it was necessary to devise a legal instrument of protection of such cables outside of the coastal state's jurisdiction, which was, at the time, everything outside of the territorial waters (12 nautical miles). The Convention for the Protection of Submarine Telegraph Cables was adopted by more than 40 countries in Paris in 1884.<sup>66</sup> The Convention established the freedom to lay, maintain and repair submarine telegraph cables outside of the territorial sea (the "laying of cables and pipelines is a High Seas Freedom" principle). The member states are obliged to adopt criminal and civil legislation that will sanction all willful or negligent breaking or injury of a cable, except if such damage resulted from the effort to save lives and vessels, and all necessary precautions have been made (Art 2). An owner of a new cable that, during the laying or repairing, causes damage to the already existing one is made liable to indemnify the owner of the latter cable for the costs of the repairs (Art 4). Special status is given to the ships engaged in the laying and repairing operations, and all other vessels are to respect the instructions regarding the safety and distance (Art 5). Vessels that sacrifice anchors or fishing gear in order to avoid injury to the cable are provided with the right to seek indemnification from the owner of that cable (Art 7). Jurisdiction is set to the court of the state on board whose ship the infraction had been committed (Art 8). A right of visitation is provided for the war ships or other vessels specially commissioned for that purpose, when there is a doubt that the rules provided by the Convention are not followed (Art 10). This right however does not include the right of search and arrest, but is merely aimed at the inspection of official documents of nationality of the vessel. The Convention is excluded from application in the armed conflicts (Art 15). No ban for the cutting of enemy's cable or a cable connecting the enemy and a neutral state (if so required for the war efforts) is provided, nor is there a provision of indemnification for the damage caused by such cutting after the conflict has ended (not even to the private entity).

The Convention is still in force for those countries not part of any of subsequent international legislation. This is seen as being detrimental, as the Convention's norms, although well conceived, do not (and cannot due to the time span) correspond to the present needs. Notably, the Convention only applies to the telegraphic and power cables. Secondly, the violators are often not prosecuted.<sup>67</sup> Furthermore, the Convention does not provide for any possibility of forbidding the fishermen and others from working close to the cables. Finally, cable owners cannot take legal action until a cable is actually damaged.<sup>68</sup>

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<sup>65</sup> Although not discussed in the text, it is worthy to mention the 1972 Convention on International Regulations for Preventing Collisions at Sea, and its r 3(g)(i) which states that a "Vessel engaged in laying, servicing or picking up submarine cable is a vessel restricted in ability to maneuver and should be avoided by other vessels".

<sup>66</sup> Convention for the Protection of Submarine Telegraph Cables, 14 Mar, 1884, USTS at 30; also available at: Martens NRG2, vol 11, at 281; and: [www.iscpc.org](http://www.iscpc.org), last visited on 19 May 2010.

<sup>67</sup> *Op cit* n 56, at 738.

<sup>68</sup> A good example of this problem can be found in the United States Jurisdiction: "And even if that occurs... shortcomings in US submarine cable law have frustrated cable owners in their cable protection and damage recovery efforts. In typical cases of cable damage by vessels, repairing cables and restoring telecommunications

### 4.1.2 The Geneva Conventions on the Continental Shelf and the High Seas

Due to the efforts of the International Law Commission, the Geneva Convention on the Continental Shelf<sup>69</sup> and the Geneva Convention on the High Seas<sup>70</sup> took over relevant provisions of the Protection of the Submarine Cables Convention.<sup>71</sup> More importantly, the scope of the application was expanded to include the protection of the telephone cables, high-voltage power cables and submarine pipelines.<sup>72</sup> Article 26 of the Convention on the High Seas recognised the right of the Coastal State to exploit its natural resources, and gave the Coastal State a right to prevent the laying of the cables and pipelines which unjustifiably interfere with that right (similarly, the Art 4 of the Convention on the Continental Shelf).

### 4.2 Convention for the Law of the Sea (UNCLOS)

The UNCLOS adopted the provisions of the Geneva Conventions, but extended them significantly.

### 4.3 Continental Shelf and the Exclusive Economic Zone

The UNCLOS Convention recognizes the right of States to lay, repair and maintain submarine cables and pipelines both in the Exclusive Economic Zone (Art 58<sup>73</sup>) and the Continental Shelf (Art 79<sup>74</sup>).

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services can cost cable owners up to \$2 million in both repair costs and lost revenue. However, the US federal statute for submarine cable protection imposes a maximum penalty of only \$5000 for willful injury to cables. This insignificant maximum criminal penalty provides little incentive for enforcement authorities to assign full-time legal and investigative personnel to prosecute vessel owners caught damaging a submarine cable. The cable industry's only recourse is to litigate, since the penalties provided in US legislation "for the breaking or injury of a submarine cable shall not be a bar to a suit for damages on account of such breaking or injury" (Section 28). There is increasing pressure being put on the US Government by the cable industry to strengthen legislation and cable protection measures", S Coffen-Smout and G J Herbert, "Submarine cables: a challenge for ocean management", *Marine Policy*, vol 24, Issue 6, November 2000, 441-448, at 44. Also, "in the 105 years history of the *Submarine Cable Act*, there is not a single record of a criminal charge, much less a trial or conviction under this statute", E Wagner, "Submarine cables and protections provided by the Law of the Sea", *Marine Policy*, vol 19, Issue 2 (1995), 127-136, at 135; see especially: D R Burnett, "Security of International Submarine Cable Infrastructure – Time to Rethink", *Legal Challenges in Maritime Security*, 2008.

<sup>69</sup> Convention on the Continental Shelf, 29 Apr 1958, 499 UNTS (1964) at 312.

<sup>70</sup> Convention on the High Seas, 29 Apr 1958, 450 UNTS (1963) at 82.

<sup>71</sup> According to Beckman, "the provisions in the 1884 Convention that were not incorporated into the 1958 Convention on the Continental Shelf cannot be considered as evidence of customary international law", R Beckman, "Submarine Cables – A Critically Important but Neglected Area of the Law of the Sea", 7th International Conference on Legal Regimes of Sea, Air, Space and Antarctica (ISIL Conference), January 2010, New Delhi, at 3.

<sup>72</sup> For more on the evolution of the international regulation of the protection of the submarine cables and pipelines, see: Dupuy-Vignes (ed), *A Handbook on the New Law of the Sea*, Martinus Nijhoff, Dordrecht, 1991, vol 2, at 977-988.

<sup>73</sup> Article 58: "Rights and duties of other States in the exclusive economic zone

1. In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.
2. Articles 88 to 115 and other pertinent rules of international law apply to the exclusive economic zone in so far as they are not incompatible with this Part.

In the EEZ, the Coastal State has sovereign rights (Art 56) regarding the exploration, exploitation, conservation and management of natural and living resources, and the activities adjunct to that zone (eg, wind-farming). In addition, the Coastal State has a jurisdiction over artificial structures<sup>75</sup> built and marine scientific research conducted in the EEZ, as well as the protection of the marine environment. Other rights of the Coastal State include the right of boarding, inspection and arrest (Art 73), and the right of imposing safety standards. Similarly, in the Continental Shelf, the Coastal State has the right (Art 79) to take “reasonable measures” for the exploration and exploitation of the natural resources of the seabed or subsoil, and prevention, reduction and control of pollution (this third option is, however, only reserved for the case of the pipelines, and it does not apply to the cables). Also, the Coastal State is given a right of jurisdiction over artificial structures (Art 80). If the EEZ is established above the Continental Shelf, the regime of the EEZ applies.

The owner of a cable or pipeline to be laid needs to pay due regard to other submarine cables or pipelines already in position, and in the case of pipelines, needs to obtain the Coastal State’s consent regarding the delineation of the pipeline (Art 79(3)), and the conditions for the removal after its abandonment (no such consent is necessary for the cables). If necessary, prior information and negotiation with the Coastal State over the route of the cable has to be conducted.<sup>76</sup> In case of a conflict, the Coastal State has priority. Article 60 allows the creation of the safety zone up to 500 metres around any installation on the continental shelf to provide for safe navigation (eg around pumping stations).<sup>77</sup>

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3. In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part”, UNCLOS Convention, op cit n 3.

<sup>74</sup> Article 79: “Submarine cables and pipelines on the continental shelf

1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article.
2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal State may not impede the laying or maintenance of such cables or pipelines.
3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal State.
4. Nothing in this Part affects the right of the coastal State to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.
5. When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced”, UNCLOS Convention, op cit n 3.

<sup>75</sup> For more on this topic, see E D Brown, “The significance of a possible EC EEZ for the law relating to artificial islands, installations, and structures, and to cables and pipelines, in the exclusive economic zone”, *Ocean Development & International Law*, vol 23, Issue 2-3, 1992, 115-144.

<sup>76</sup> Beckman argues that the Coastal State has the right to ensure that any survey activity related to the prospective laying of a submarine cable is not aimed at exploration of the natural resources, see: Beckman, op cit n 71, at 10; For a discourse regarding the right of the Coastal State to dictate the course of the submarine cables, see R R Churchill, and A V Lowe, *The Law of the Sea* (Juris Publishing, 3rd ed, 1999), at 156.

<sup>77</sup> For an excellent critical review of the UNCLOS norms related to the submarine cables and pipelines, see S Kaye, “International Measures to Protect Oil Platforms, Pipelines, and Submarine Cables from Attack”, 31 *Tul Mar LJ* 377, 2006-2007, at 398-403.

#### 4.2.2 High Seas

On the High Seas, all States have a right to lay submarine cable and pipelines (Art 87(c),<sup>78</sup> Art 112<sup>79</sup>). This however does not imply the acquiring of the title on the seabed. Additionally, there is no possibility of establishing a safety zone. The owner of the cable or pipeline to be laid has to pay due regard to the interest of other submarine cable or pipeline already in place. Namely, the UNCLOS establishes a duty to inform an owner of the already existing submarine cable or pipeline in the case of crossing, and an obligation of negotiation regarding the point of crossing if necessary. Article 113 determines the obligation of the Member States to adopt in their national legislation the sanctions for the willful or culpable negligent breaking or injury to the submarine cable or pipeline, or activity that is intended to result in such breaking or injury. There is a possibility of an exclusion in a case where damage caused was necessary to preserve lives and vessels. If damage is caused, the owner of the cable that is being laid bears the costs of repair (Art 114). In case of damages beyond repair, the national law shall determine the subsequent proceedings. If a person has sustained loss whilst trying to avoid the damage to the submarine cable, UNCLOS provides the right of indemnity from the owner of that cable (Art 115). Jurisdiction in penal or disciplinary matters is set to the flag state court or the court of the state of which the person concerned is a national (Art 113).<sup>80</sup>

An important addition to international regulation is the extension of the cable provisions to the high-voltage cables and pipelines.

The UNCLOS does not allow the right of visitation on the High Seas.

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<sup>78</sup> Article 87(c): “Freedom of the high seas

1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, *inter alia*, both for coastal and land-locked States:

(c) freedom to lay submarine cables and pipelines, subject to Part VI”, UNCLOS Convention, *op cit* n 3.

<sup>79</sup> Article 112: “Right to lay submarine cables and pipelines

1. All States are entitled to lay submarine cables and pipelines on the bed of the high seas beyond the continental shelf.

2. Article 79, paragraph 5, applies to such cables and pipelines”, UNCLOS Convention, *op cit* n 3.

<sup>80</sup> Article 113: “Breaking or injury of a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done wilfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline or high-voltage power cable, shall be a punishable offence. This provision shall apply also to conduct calculated or likely to result in such breaking or injury. However, it shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury”.

Article 114: “Breaking or injury by owners of a submarine cable or pipeline of another submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that, if persons subject to its jurisdiction who are the owners of a submarine cable or pipeline beneath the high seas, in laying or repairing that cable or pipeline, cause a break in or injury to another cable or pipeline, they shall bear the cost of the repairs”.

Article 115: “Indemnity for loss incurred in avoiding injury to a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to ensure that the owners of ships who can prove that they have sacrificed an anchor, a net or any other fishing gear, in order to avoid injuring a submarine cable or pipeline, shall be indemnified by the owner of the cable or pipeline, provided that the owner of the ship has taken all reasonable precautionary measures beforehand”, UNCLOS Convention, *op cit* n 3.



## 5. UNRESOLVED ISSUES

There are a number of legal issues not covered by the existing international regulation on the cross-border submarine cables and pipelines.<sup>81</sup>

### 5.1 Question of the Applicable Law

The Nord Stream pipeline is crossing several different areas of several Coastal States. Starting in the Russian internal waters, the pipeline continues to pass the Russian territorial sea, exclusive economic zone and the continental shelf, through the Finish, Swedish, Danish and German exclusive economic zones, Danish and German territorial waters, and, finally ending in the German internal waters. Therefore, the choice of law can vary, from the Russian law as the law of the Sending State, German law as the law of the Receiving State, Transit State law (Finish, Swedish or Danish), Swiss law as the law of the State of the Registration, and possibly, English law as the probable applicable law for the Insurance Policy. Such legal diversification could potentially create difficulties, and most current pipelines in operation have set in advance the applicable law through the international treaty or agreements regulating the construction and operation of the project. In the absence of such provisions, the rules of the international and national legislation would be used to determine the closest connection for the choice of law.

### 5.2 Debatable Property Status of Submarine Pipelines

As the sovereignty of the Coastal State outside of the Territorial Sea is restricted, “*lex rei sitae*” principle cannot be applied regarding the law determining the property status of the pipeline in the areas other than the territorial waters. Therefore, it may be difficult to determine the property status of such a pipeline. In such a case, the rule of closest connection should be used. This however also may bring to different results. In the example of the Nord Stream Pipeline Project, two most probable legal systems to be taken into consideration for the determination of the legal status of the pipeline are the Russian and the German. At each end of the submarine pipeline lies a terminal, situated on the coast, and therefore under the complete jurisdiction of the Coastal State. Based on these segments of the pipeline (since the longest part of the pipeline lies in the EEZ areas), the complete length of the pipeline could be considered as a single unit determined by a single legal system. Another possibility is to register the submarine pipeline in the ship registry of the Flag State, by identifying, through the provision of the UNCLOS and the national legislation, the genuine link between the pipeline and one of the Coastal States as the Flag State. The International Treaty or a set of Agreements between the involved States and companies can also determine the legal nature of the pipeline. If this is not done, and a dispute arises where it would be necessary to determine that status, national courts would have the final saying (implementing the provision of the UNCLOS, The Energy Charter Treaty, and other relevant international and national legislation). The clear property status of the pipeline is necessary as to have normal property rights over the pipeline, court jurisdiction and safety standards and norms. Additionally, the clear property status of the pipeline is necessary as to be able to establish security interests like liens and mortgages.<sup>82</sup>

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<sup>81</sup> For a detailed analysis of current problems facing the submarine cable field, with comprehensive recommendations, see R Beckman and T Davenport, “Workshop Report – Workshop on Submarine Cables and Law of the Sea”, Centre for International Law (CIL), 2009.

<sup>82</sup> More on the issues of the property status of submarine pipelines (and cables) see A R Börner, “Private Law Aspects of the Nord Stream Pipeline”, Nord Stream Pipeline Conference, CAU Kiel, February 2009.

### 5.3 Third-Party Access to Submarine Cables

The standard facility doctrine of the submarine cables dictates that the underwater cables are considered as ancillary installations to the sending station, therefore being subject to the same domestic installation of that station, and usually recognized as a chattel.<sup>83</sup> Even if the Receiving State sends back the electric signals, the status of that submarine cable will not change. However, the facility doctrine can be problematic when considering third-party access and the contents provided through the cable. The question of jurisdiction arises when it becomes necessary to determine which law, that of the Sending State, Receiving State or the Third-Party State will govern the intellectual property issues. Having in mind the fact that the submarine cables carry most of the international voice and data communication, it is of relevance to establish in advance which law will govern that transfer.<sup>84</sup>

### 5.4 Unnecessary Delay of the Project – Abuse of Right by a Coastal State

The Coastal State has, in the EEZ and the Continental Shelf, a right of prevention of the laying of the submarine pipelines and cables, should they prevent the Coastal States from exercising the rights of exploration and exploitation of the natural resources in those areas. Should the Flag State (survey of laying ship) wish to challenge such regulations, this is to be done through the provisions set in the Art 297 of UNCLOS. What exactly such a challenge would comprise of is not defined by the UNCLOS, and is left to the dispute settlement system to determine in a case of a dispute. The question is on what basis can the Coastal State claim that the laying of the submarine pipeline or a cable prevents the exploration and exploitation of the resources. Beckman suggests that:

“it would seem reasonable for a coastal State to impose restrictions on the laying of submarine cables in its richest fishing grounds or coral reef areas in its EEZ and to put restrictions on the laying of cables in areas designated for off-shore exploration for oil and gas”.<sup>85</sup>

He however warns that:

“Disputes on the application and interpretation of article 79(2) could arise if a company laying a submarine cable is of the view that the laws and regulations of the coastal State restricting their right to lay submarine cables are not reasonable measures”.<sup>86</sup>

It would be of a common benefit to reach a unilateral understanding of what these measures can consist of.

Additionally, before the commencing of the construction of the submarine pipeline, consent of the Coastal State is necessary. This is usually preceded by environmental and safety studies, and the study of the best possible route of the pipeline. There is however, no limitation as to the length of these consultations and studies, nor is the Coastal State required to approve the laying in a certain time period. The Art 300 of the UNCLOS promotes good faith in fulfilling the obligations set under the UNCLOS and prohibits the abuse of the rights determined by the UNCLOS. Accordingly, every false claim regarding the “reasonable measures” for exploration

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<sup>83</sup> The example would be the old German law on the encumbrance of deep sea cables of March 31, 1925, RGBI 1925 I 37.

<sup>84</sup> And through this, cover issues of the freedom of speech, sharing of information, protection of national interests and etc.

<sup>85</sup> Beckman, *op cit* n 71, at 6.

<sup>86</sup> *Ibid.*

and exploitation of the resources, and every unnecessary delay of the project should be sanctioned due to the abuse or rights it constitutes. The ICJ, ITLOS or any other arbitration (or special arbitration) should adjudicate such sanction (the same legal principle should be present in other dispute settlement forums). However, the broad variety of choice regarding the place of adjudication could potentially lead to the “forum-shopping” attempts, depending on the choice of law more favourable to the parties.

### 5.5 Enforcement of the UNCLOS Provisions

The ICPC endorses the ratification of the UNCLOS, and adoption of the national legislation aimed at implementing the UNCLOS provisions. However, as ICPC states, many countries still did not ratify the Convention, or did not establish adequate domestic laws providing for effective penalties against such violations.<sup>87</sup> Another interesting point is a suggestion that due to the possible heavy penalties for breaking or injury of the submarine cable, the level of compensation paid by the cable owners to the marines who work the sea bed in the vicinity of the cable is increased. If there is no such compensation, punitive measure can result in a refusal by fishermen to approve cable laying in their territory.<sup>88</sup>

In conjunction with the previously said, a number of UNCLOS provisions lack clarification on the specific terminology used. As Vinogradov points out,<sup>89</sup> it is still unclear what exactly the term “Reasonable measure” in Art 79 comprises of, and to what extent can this right distract the laying of the submarine pipeline. The Nord Stream Project is a good example of long and, in some cases, unsuccessful negotiations with prospective trans-border nations (even if only having the EEZ in mind).

Another problematic term in the UNCLOS is “Marine research” in the EEZ. Can the seabed survey necessary for laying submarine cables and pipelines collide with the seabed mineral research, and in what conditions is the Coastal State allowed to stop or modify such an endeavor?

However, no matter how general some specific UNCLOS provisions may be, when contrasted with numerous different and conflicting provisions under national and regional legislation, a *harmonised-standard* approach is more likely to achieve much needed improvements in the submarine cable and pipeline field.

### 5.6 Questions of Liability of the Pipeline Operators

Directive 2004/35 on Environmental Liability (ELD)<sup>90</sup> creates a public law liability regime imposing obligations on operators with the uncapped liability for costs of preventive measures and remediation caused by the spill of oil transported by a pipeline (the same applies for the gas pipelines). As there is no international regime regulating the liability for the pollution from the pipelines, the liability of the operators of the pipelines will depend on the norms of the national

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<sup>87</sup> A support of this argument can be found in E Wagner, op cit n 68, at 134-136. Additionally, see the Speech of the President of the International Tribunal for the Law of the Sea at the CIMA/COLP Regional Workshop on Submarine Cables, Beijing, PR China, 7-8 May 2009, available at: [www.itlos.org](http://www.itlos.org), last visited on 19 May 2010.

<sup>88</sup> E Wagner, op cit n 67, at 134-136.

<sup>89</sup> Op cit n 19, at 9.

<sup>90</sup> Directive 2004/35 of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143, 30/04/2004 P 0056 – 0075.

law, regional legislation,<sup>91</sup> and the international treaties and agreements signed for the purposes of the project. No matter what the legal source is, it is crucial to establish clear rules of liability. In this sense, it would be of benefit to have international legislation, like the Energy Charter Treaty, setting the clear legal standards of the liability of the land and submarine pipeline (and cable) owners and operators.

## 6. CONCLUSION

States enjoy the rights of laying and operating submarine cables and pipelines. Whereas in the territorial sea the Coastal State can determine the conditions for such laying and operation, and, impose taxes as transit fees, in the Continental Shelf and the EEZ zones, the Coastal State can only object to such undertakings if they seriously obstruct the rights of exploration and exploitation of the natural resources of those areas. Stability of the operation and legal certainty are necessary to promote huge investments necessary for the construction and commencing of such projects. The Law of the Sea Convention and the Energy Charter Treaty aim to ensure, both on the land and in the sea, full legal protection and undisrupted non-discriminatory flow of the energy products. Although not all possible legal questions have been resolved by the mentioned Treaties, they provide solid and clear legal framework for the successful construction and operation of land/submarine cables and pipelines, having in mind the interests of both State and private business. It is necessary that all Member States ensure that their national legislation provides for all obligations that the named Treaties legislate.

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<sup>91</sup> Another example was the Waste Directive 75/442 understanding of the ECJ in the *Re Erika* Case, where it was held that where damage exceeds the CLC and IOPC Fund limits, a seller of oil (and a charterer of ship) would be a producer of waste (in this case, oil mixed up with water and sand) and therefore, liable (despite the “channeling of liability” provisions of the CLC Regime). When connected to the *Van de Walle* case, where oil spilled on land was seen as waste, there existed a possibility of the pipeline operator to be held liable for producing waste during the oil spill from the pipeline. New edition of the Waste Directive no more defines waste as the contaminated soil. For detail analysis of the problem, see G Beltem, “The Baltic Sea Pipeline and EU Environmental Liability: Scope Matters”, Nord Stream Pipeline Conference, CAU Kiel, February 2009.