

## Comparative Definition of Energy under Public International Organizations

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**ABSTRACT:** Energy's significance is accepted by everyone. However, its definition is different for every academic discipline. For scientists, energy is an indirectly observed quantity which is sustained for physical activity. In social sciences, energy has various definitions. Political science energy can be discussed under political authority and power, from the international relations point of view energy is a serious issue for security and nations. Within a legal framework, energy has different definitions for every legal area and legal document. Definitions of energy in legal documents play key roles in politics and international relations. To illustrate the importance of legal definitions, this paper will attempt to define energy under the fundamental regulations of some main international institutions: the United Nations, the Energy Charter Treaty, the World Trade Organization and the International Energy Agency.

**Keywords:** Definition of Energy; International Organizations related with energy

**JEL Classifications:** Q4; K33

### 1. Introduction

Law and other disciplines strictly bind with each other when their interests of related authorities overlap. Energy is one significant example for these overlap issues. When energy comes into the scenario, not only social sciences' aspects are in debate but also all science and engineering fields can take part in the debate. The reason for this is that while energy has a physical explanation, it also has legal definitions; additionally it has an important meaning and role for fields like international relations and political science. To illustrate, energy is defined in three different ways in the Oxford Dictionary, as "the strength and vitality required for sustained physical or mental activity person's physical and mental powers/ power derived from the utilization of physical or chemical resources, especially to provide light and heat or to work machines/ Physics: the property of matter and radiation which is manifest as a capacity to perform work (such as causing motion or the interaction of molecules)" ("Paperback Oxford English Dictionary ", 2010).

Even in the dictionary energy cannot be defined with one explanation, so every academic field has its own definition or meaning for energy. Although every field describes energy in its own way, legal definition has specific importance which affects other fields (Baker, 2000). In some situations, legal regulations or legal definitions come before related fields' terminology but in some cases legal regulations and definitions are established in other fields' discussions. Therefore, the end relations between the actors in the game draw their frameworks based on legal regulations. This fact is valid for energy, as well (Florini and Dubash, 2011).

Besides the facts that are explained above, like many international law areas, energy definition and international energy regulation have a fragmented nature;<sup>1</sup> In energy, fundamental documents which also affect countries' internal law systems are international treaties and international organizations' documents which have a binding nature for member states.<sup>2</sup> The fragmented nature is

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<sup>1</sup> Fragmented nature of international law is accepted by everyone who works in different international law areas both as a researcher and as a practitioner. For further information please see: <http://untreaty.un.org/cod/avl/ha/fil/fil.html> (accessed date 10/04/2013)

<sup>2</sup> For further information for binding nature of international organizations and international documents please check: Klabbers (2009).

not characteristic of international law, as energy has a fragmented nature, as well. This means, energy may be seen in various form, such as renewables, carbons, oil and gas. These main groups also have their own sub-categories.

Hence it is not easy to define energy under international law. There are many legal documents which are all related with energy and different energy types, so the main question should be to define energy under international law. In order to illustrate, the best way to do this is using the fragmented natures of energy and international. Therefore this paper includes definitions from fundamental legal documents the most effective and well-known international organizations related with the energy. Those are the United Nations (UN), International Energy Agency (IEA), and Energy Charter Treaty Secretariat (ECT), Organization of Petroleum Exporting Countries (OPEC) to understand and illustrate the definition of energy under international law.

## **2. The United Nations**

The United Nations (UN) is the most powerful public international organization in the world. The organizational structure of the UN is divided into various agencies, units and departments. Each of them was established to specialize in different fields and programmes. (Klabbers, 2009) However, in the case of energy, the UN do not have one specialized agency or programme for regulating international energy matters or pursuing energy related programmes. Different agencies work on different types of programme in energy related issues in the UN (Walde, 2004).

This variety under the UN was discussed in the Johannesburg Plan of Implementation (JPOI), 2002. According to decisions which were taken in this plan, the UN- Energy was established in 2004 as a coordination mechanism in order to improve coherence between all UN departments that handle programmes related with energy issues. Hence members of the UN-Energy are different agencies, the UN-Energy structured as a multi-disciplinary mechanism. The UN-Energy aims to ensure coherency and coordination under three main themes. Each theme is led by two UN agencies. Those themes and agencies are;

“-Energy access led by the UN DEAS and the UNDP, and the World Bank as a partner institution,

-Renewable energy led by the FAO and the UNEP, and supported by the UNESCO,

-Energy efficiency led by the UNIDO and the IAEA”<sup>3</sup> ("United Nations Energy ")

Although establishment of the UN-Energy, separation between UN energy related programmes cannot be concluded. In order to illustrate the definition of energy under the UN, explaining the programmes some selected agencies is the best way.

The UNDP is one of the most active programmes of the UN which pursues important projects about energy issues. The fundamental goals of those projects are to build sustainable energy capacities for local communities for providing energy access around the world (The United Nations Development Programme). Most of the UNDP projects are preceded by energy sector initiatives and funded by the UN/UNDP. Various types of energy projects are funded by UN/UNDP without any discrimination, except the criteria are sustainability and protection of local communities<sup>4</sup>.

Another significant UN programme which is related with energy issues is the UNEP. The UNEP's main target is to develop global environmental consciousness, especially in sustainable development issues. As explicitly referred to in its name, the UNEP's priority is the climate change issue; as a result of this priority the UNEP supports renewable energy projects (The United Nations Environmental Programme). Despite there being no explicit reference to renewable energy types in the fundamental legal documents of the UNEP, these legal documents mentioned international policy issues hazardous wastes, environmental protection and the ozone layer. Therefore, oil and gas based energy types opted out of the programme. However, as Walde emphasized, these documents do not

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<sup>3</sup> UN DESA: The United Nations Department of Economic and Social Affairs

UNDP: The United Nations Development Programme

FAO: The Food and Agriculture Organization of the United Nations

UNEP: The United Nations Environment Programme

UNESCO: The United Nations Educational, Scientific and Cultural Organization

UNIDO: The United Nations Industrial Development Organizations

IAEA: International Atomic Energy Agency

<sup>4</sup> For further discussions about this issue please see: Walde (2004).

have international regulatory features, they can be defined as a “tangential” policy documents. (Walde, 2004)

As seen above, UNDP and UNEP have a relationship with renewable energy projects to maintain their fundamental sustainability targets, but the IAEA is different in this sense. The IAEA is only interested in nuclear issues based on three pillars since 1957. These pillars are: nuclear verification and security, safety and technology transfer (Fischer, 1997). The significance of the agency comes from its establishment and fundamental legal documents. The agency has effective power to control nuclear projects of the member states, and global security. Although the fundamental documents do not give any clear definition of nuclear energy, projects and supportive documents help to understand limits of the IAEA on nuclear energy issues (International Atomic Agency).

### **3. International Energy Agency**

The International Energy Agency (IEA) was established in 1974 as a reaction to the oil crises in 1973 and 1974. Although the main idea was improving cooperation between member states about oil pricing issues, the decision of establishing the IEA does not limit its powers only to oil and oil prices. According to Article 6 of the declaration, the main objectives of the agency are;

- “-to maintain and improve systems for coping with oil supply disruptions;
- to promote rational energy policies in a global context through co-operative relations with non-member countries, industry and international organisations;
- to operate a permanent information system on the international oil market;
- to improve the world’s energy supply and demand structure by developing alternative energy sources and increasing the efficiency of energy use;
- to promote international collaboration on energy technology; and
- to assist in the integration of environmental and energy policies (Decision of the Council establishing an International Energy Agency, 1974).

As the declaration emphasized, the IEA has explicit power over every kind of energy; moreover the agency has the power to develop new energy sources in order to shape supply, demand and efficiency of energy. This board power, about known energy types and future energy sources, gives the IEA the ability to affect the international energy market, but membership of the agency is not as wide as the IAEA or other the UN based programmes/ agencies (Florini and Sovacool, 2009).

Since the International Energy Programme (IEP), which was accepted in 2008, the IEA has four main focus areas. These areas are; energy security, economic development, environmental consciousness, engagement with globalized world (International Energy Agency, 2013).

From the establishment of the IEA, its research and development objectives cannot be practically used, so the agency’s most remarkable role in the international relations and international law may be defined as a strategic cooperation between member states.

This may be the consequence of the lack of clear and explicit definition of energy. In other words, like the UN programmes and agencies, also the IEA and its fundamental establishment statues do not give specific and clear answers to the questions “What is energy?” Because of this reason, all currently known and future energy sources count under the working interests of the IEA. This might be the result of the oil crises, the public international institution IEA has unlimited power to describe the definition of energy, so has its own strong power to draw its own understanding of energy.

### **4. Energy Charter Treaty**

The Energy Charter Treaty (ECT) Secretariat is one of the important organizations of the public international organizations explained in this article. The ECT secretariat was established in 1994 based on the ECT. Although there are doubts about significant importance and effectiveness after the Russian Federation opt out, the ECT still has an important role in international energy related issues, especially international investment in the energy sector (Nappert, 2010). The ECT is a multilateral energy treaty with the largest geographical and country coverage (Konoplyanik and Walde, 2006). Due to this reason even while Russia, as one of the most important actors in global energy, opted out of the ECT, the ECT keeps its importance.

On one hand, as with many other international legal documents on energy, the ECT does not include any specific definition for energy. ("The Energy Charter Treaty and Related Documents ", 1994) On the other hand, the ECT does not have any limitations on energy sources; however, the discussion about its coverage on different energy sources exists (Walde, 2004).

According to the ECT Secretariat official web-site, the wording of the treaty covers all kinds of energy sources. Therefore, the ECT can be applied to all kind of energy sources issues. ("The Energy Charter Secretariat Official Web-Site ") Although the ECT does not limit the power of the application on different energy sources, disputes to which the ECT was applied during the dispute settlement process were not related to the renewable energy sources. This may be the starting point of discussions about the ECT and its application to all kinds of energy sources.

As Florini and Sovacool (2009) explicitly emphasized, application of the ECT is not useful for renewable energy sources. Another problem of the ECT, which has not been previously mentioned, is the nature of the ECT. The priority is regulating international investment in the energy sector. This idea is strictly rejected by the executive body –the ECT secretariat- but application and provisions of the treaty do not help prove the secretariat's arguments.

Besides the fundamental legal documents of the ECT, other sources of the search for the definition of energy are disputed settlement awards which are solved based on the ECT. In other words, in order to solve the dispute, arbitrators or judges try to describe fundamental issues or draw the scope of the disputes. Hence the ECT based arbitral awards might give an idea or scope of the energy under the ECT provisions. However, in disputed settlement awards based on the ECT, there are no explanations of scope of the treaty or a clear description of energy.

To sum up, the scope of the ECT is a controversial issue because the wording of the treaty and related documents do not give explicit definition of the energy. Furthermore, the ECT and the related documents do not have any strict limitations about the scope of the treaty's power on energy sources. The ECT's role as one of the primary multilateral treaty on energy is about energy security and international investments in energy sector. However, even these primary roles cannot help to develop a definition on energy and determine the scope of the ECT.

## **5. The Organization of Petroleum Exporting Countries & The World Trade Organization**

The Organization of Petroleum Exporting Countries (OPEC) is one of the oldest and most important organizations in the world's energy issues. It was established in 1960 by five members, and it now has twelve members which are petroleum exporting countries. ("The Organization of Petroleum Exporting Countries,")

The OPEC has two key roles in the international energy market. Firstly, due to the members being petroleum producing countries, those countries are interested in the petroleum market and stabilization of the revenues is a prior objective of the organization. The second role is to protect the value and importance of petroleum products in the world energy market. (Walde, 2004) So far, the OPEC does not have any action plans for climate change, environmental or renewable energy sources.

A reason the OPEC does not pursue projects on environmental issues or renewable energy sources is the OPEC's mission scope and understanding of energy. To understand more clearly, the *raison d'être* of the OPEC should be explained. While the *raison d'être* of the OPEC is to maintain the power and importance of the petroleum producing countries and energy market values of the products, the OPEC's power is only limited by the actions on petroleum production and petroleum products market (The Organization of Petroleum Exporting Countries).<sup>5</sup>

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<sup>5</sup> In the official web-site of the OPEC, the mission of the organization defines as "The mission of the Organization of the Petroleum Exporting Countries (OPEC) is to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital for those investing in the petroleum industry." For further information please see: [http://www.opec.org/opec\\_web/en/about\\_us/23.htm](http://www.opec.org/opec_web/en/about_us/23.htm)

While the OPEC has a production quota application of petroleum products of the member states, today most of the OPEC members are also members of the World Trade Organization (WTO). In this situation, the production quota application of the OPEC opens a floor debate under the WTO law.<sup>6</sup>

From the WTO perspective, the discussion's essential point is to determine whether energy is defined as goods or a service under the WTO regulations. (Cottier et al., 2010) Since none of the fundamental energy related organizations or treaties cannot give definition of energy, it is impossible to understand whether energy should be known as goods or service under the WTO law. Moreover, according to the Cottier current the WTO regulations are far from giving an answer to this question, because both goods and services characteristics can be observed in the energy sector (Cottier et al., 2010).

As a result, the OPEC is the only organization that is able to draw the scope of its power but this cannot prevent the conflict of international legal norms under the different international law fields and international organizations.

## **7. Conclusion**

Energy-related issues have significant importance within most academic disciplines. From a legal point of view, the definition of energy is remarkably unclear. While energy is the main term, energy services, materials, economic activities in energy sector, investments, transit and transportation were defined with similar words in different treaties or agreements. However, the definition of energy in legal aspects is important to improve the legal regime, and help to understand and solve the disputes arising from or related to energy. To define in terms of law, the first step is checking fundamental agreements, treaties, regulations and other related legal documents. Secondly, arbitral awards, judicial decisions such as international courts or national courts judgments are used to understand application of legal instruments. In an energy context the Energy Charter Treaty (ECT) is known as the most important international legal instrument. In the ECT, energy was not defined separately; however, it does define energy materials and products, economic activity in energy sector and investment. Other international documents, such as The United Nations'(UN) documents, European Union's(EU) regulations and treaties also energy related term. In this context, the World Trade Organization's position on energy and energy services are controversial. According to this definition, energy is everywhere and in everything. The most remarkable definition of energy related issues was expressed as all the discussions were rounded between whether energy should be described as goods or services.<sup>7</sup> Although the WTO does not have specific legal documents or references in its agreements, on-going negotiations are known as "energy services". When we consider the ECT context energy-related issues are economic activities, investments, products and materials, transits, transportation, trade and competition. When we check the sources of the UN and the EU, we come to similarly regulated issues. The difference from the ECT and the WTO are, while the ECT and the WTO mostly interested in trade and investments parts of the energy, their priority issues are environmental and energy security aspects.

As a result of all these findings, two options have occurred; the first one is we cannot define energy within a legal context. Secondly, energy is the total of these all definitions or discussions. That means energy cannot be defined in any one way. It cannot be considered either as goods or as a service.

When importance of the definitions in law and policy issues is considered, 'energy' is needed to define. A lot of reasons may be showed for that unclear position for the definition of 'energy'. One and key reason for this may be binding nature of legal definitions. As mentioned above the definition of 'energy' is hidden behind all discussion in this article. Therefore, as science says everything is made up from energy and everything is an energy source.

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<sup>6</sup> For short and clear details of the discussion please see: Walde, Thomas W. (2004). International Energy Law and Policy *Encyclopedia of Energy* (Vol. 3): Elsevier Inc.

<sup>7</sup> T. Cottier, G. Malumfashi, S. Matteotti-Berkutova, O. Nartova, J. De Sepibus, Z. Bigdeli (2010) Energy in WTO Law and Policy Available: [http://www.wto.org/english/res\\_e/publications\\_e/wtr10\\_forum\\_e/wtr10\\_7may10\\_e.pdf](http://www.wto.org/english/res_e/publications_e/wtr10_forum_e/wtr10_7may10_e.pdf) 17.10.2012

## **References**

- Baker, J.C. (2000). *International Law and International Relations* (1st ed.). London: Continuum
- Cottier, T., Malumfashi, G., Mateotti-Berkutova, S., Nartova, O., De Sepibus, J., Bigdeli, S.Z. (2010). *Energy in WTO Law The World Trade Organization*.
- Decision of the Council establishing an International Energy Agency (1974 15th November 1974). The Energy Charter Secretariat Official Web-Site). Retrieved 20/10/2012, 2012, from <http://www.encharter.org/index.php?id=1&L=0>
- The Energy Charter Treaty and Related Documents (1994).
- Fischer, D. (1997). *History of the International Atomic Agency: The First Forthy Years* Retrieved from [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1032\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1032_web.pdf)
- Florini, A., Dubash, N.K. (2011). Introduction to the Special Issue: Governing Energy in a Fragmented World *Global Policy* 2 (Special Issue).
- Florini, A., Sovacool, B.K. (2009). Who governs energy? The challenges facing global energy governance. *Energy Policy*, 37(12), 5239-5248.
- International Atomic Agency ). Retrieved 08/04/2013, 2013, from <http://www.iaea.org/About/>
- International Energy Agency (2013 ). Retrieved 08/04/2013, 2013, from <http://www.iea.org/aboutus/>
- Klabbers, J. (2009). *An Introduction to International Institutional Law* (2 ed.). Cambridge, UK: Cambridge University Press.
- Konoplyanik, A., Walde, T. (2006). Energy Charter Treaty and its Role in International Energy. *Journal of Energy and Natural Resources Law*, 24(1), 523-558.
- Nappert, S. (2010). EU-Russia Relations in the Energy Field: The Continuing Role of International Law. *International Association for Energy Economics Forum* (Third Quarter 2010), 10-14. Retrieved from International Association for Energy Economics website: <https://iaee.org/fr/publications/newsletterdl.aspx?id=110>
- The Organization of Petroleum Exporting Countries.). Retrieved 15/03/2013, 2013, from [http://www.opec.org/opec\\_web/en/17.htm](http://www.opec.org/opec_web/en/17.htm)
- Paperback Oxford English Dictionary (2010). Oxford University Press.
- The United Nations Development Programme). Retrieved 08/04/2013, 2013, from <http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/overview.html>
- United Nations Energy. Retrieved 09/03/2013, 2013, from <http://www.un-energy.org/about>
- The United Nations Environmental Programme. Retrieved 08/04/2013, 2013, from <http://www.unep.org/>
- Walde, T.W. (2004). *International Energy Law and Policy Encyclopedia of Energy* (Vol. 3): Elsevier Inc. .