ATS MUN CONFERENCE

Committee: Economic and Social Council

Issue: Energy efficiency as a means to financial growth

Student Officer: Dionysis Menagias

Position: President

INTRODUCTION

Introduction to the Committee

The Economic and Social Council (hereinafter ECOSOC) of the United Nations was established in 1945 and as one of the six main bodies of the Organization. Its mandate (functions and powers) is described in Chapter X of the UN Charter[1]. Amongst others, it may carry out or initiate studies and reports, recommendations, resolutions and prepare draft conventions always according to the matters falling within its competence, which are everything related to international economic, social, cultural, educational and health issues. ECOSOC is linked with the purposes of Article 1 par. 3 of the UN Charter and, thus, is considered as the principle body towards the achievement of them. In order for these endeavors to be achieved, ECOSOC is in continuous interaction with the civil society.

The Members of ECOSOC shall be fifty-four (54), with the possibility of reelection and with only one representative per member state. Each member state has the right to one vote and the decisions in the Economic and Social Council are made based on the majority of the members present and voting (Article 67). ECOSOC is responsible for coordinating 15 UN specialized agencies, their functional commissions and five regional commissions. Some of these functional commissions that have to be mentioned are the Commissions on Narcotic Drugs, on the Status of Women, on Science and Technology for Development, and on Population and Development[2].

[1]UN Charter, Chapter X

[2]Un.org. (2018). About Us | UNITED NATIONS ECONOMIC and SOCIAL COUNCIL. [online]. Available at: https://www.un.org/ecosoc/en/about-us

Introduction to the Topic

Energy is a major factor of production and because of this plays a key role in the economy of every country. Sustainable development in energy is at the top of the international community's agenda. ECOSOC leads discussions related to the economics of Sustainable Development Goal 7 (SDG 7)[3]– "Ensure access to affordable, reliable, sustainable and modern energy for all". Using its mandate to influence relevant functional commissions like 'Commission on Science and Technology for Development' and various regional commissions like 'Economic Commission for Europe', ECOSOC can act as a powerful forum for discussion and recommendation[4].

Pressures on the international community to encourage sustainable development in energy are the result of various reasons. The two most important ones include the threat of climate change, which human kind already faces, and threat of exhausting non-renewable resources. While both are important, the magnitude of emergency varies by the country and region. In certain coastal countries, climate change poses an immediate problem – for instance, the annual displacement of over 200,000 people in Bangladesh due to riverside erosion[5]. As far as major oil-exporting economies are concerned, like Angola, the crashing oil prices have resulted in volatile economic growth[6].

Moreover, energy efficiency has recently been promoted as an industrial policy in order to boost economic growth and competitiveness between states. For example, the European Union's 2030 Energy Strategy underlines that energy efficiency is fundamental in the transition towards a more competitive, secure, and sustainable energy system[7]. And the U.S. government has acknowledged energy efficiency as a key component of its strategy to support trade competitiveness[8].

Taking into account the complexity and the importance of the issue in hand it is of the outmost importance to understand all aspects of the matter. If any inquires arise please feel free to contact me for further information and explanations at my e-mail address (denismen_97@hotmail.com).

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[3]Goal 7.:. Sustainable Development Knowledge Platform". 2017. Sustainabledevelopment.Un.Org. https://sustainabledevelopment.un.org/sdg7.

[4]"UN Economic and Social Council". 2017. Un.Org. http://www.un.org/en/ecosoc/about/subsidiary.shtml.

[5]Glennon, Robert. 2017. "The Unfolding Tragedy Of Climate Change In Bangladesh". Blog. Scientific American. https://blogs.scientificamerican.com/guest-blog/the-unfolding-tragedy-of-climate-change-in-bangladesh/.

[6]Mises. 2017. "Are Oil Prices To Blame For The Venezuelan Crisis?". Valuewalk. http://www.valuewalk.com/2017/04/oil-prices-blame-venezuelan-crisis/.

[7]European Commission. "Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy"

[8]http://trade.gov/press/publications/newsletters/ita 1009/energy 1009.asp

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Important note from the chairs' team

In order for the chairs to fully understand the dynamics of the committee, discovering any misunderstanding prior to the debate and for the better preparation of the delegates you are asked to proceed as indicated below;

1) Conduct your chairs via email and informing them about your mun experience so that they can know what exactly to expect of you.

2) Prepare and send your chairs by 11:59 of the 6th of November one position papers for each of the topics you are going to discuss during the conference. You can conduct the expert chair, of each topic for further information concerning your country's policy if needed, and for general guidance when it comes to your position papers (word limit structure etc). You are going to receive general comments during the lobbying for your position papers as well as personal feedback and grades for your papers. The points you will receive will add up to your general score which is one of the factors that determine the best delegate award. If you for any reason fail to send your papers before the final deadline you will not be eligible for any award.

DEFINITION OF KEY TERMS

Energy Efficiency

The ratio of output of performance, service, goods or energy, to input of energy[9].

The way of managing and restraining the growth in energy consumption. Something is more energy efficient if it delivers more services for the same energy input, or the same services for less energy input[10].

Economic growth

Economic growth is an increase in the production of goods and services over a specific period. To be most accurate, the measurement must remove the effects of inflation[11].

Gross Domestic Product (GDP)

Gross domestic product (GDP) is the most commonly used measure for the size of an economy. GDP can be compiled for a country, a region or for several countries combined, as in the case of the European Union (EU). The GDP is the total of all value added created in an economy. The value added means the value of goods and services that have been produced minus the value of the goods and services needed to produce them, the so called intermediate consumption.[12]

Renewable energy resources

Renewable energy is energy from sources that are naturally replenishing but flow-limited; renewable resources are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time.[13]

[9] European Parliament, 2015. Available at: http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/568361/EPRS_BRI(2015)568361_EN.pdf

[10] https://www.iea.org/topics/energyefficiency/

[11] https://www.thebalance.com/what-is-economic-growth-3306014

[12] Eurostat, Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Beginners:GDP_-_What_is_gross_domestic_product_(GDP)%3F

[13] U.S Energy Information Administration, Available at: https://www.eia.gov/energyexplained/renewable-sources/

BACKGROUND INFORMATION

Historical Background

The issue of energy efficiency has its roots back in the 19th century and the First Industrial Revolution. Huge population centres, like London, became reality due to the extensive use of coal in railroads. By the start of the 20th century, the Second Industrial Revolution occurred, resulting in electricity, fertilizers, and advances in public health. A few years later, World War I broke out and forced the international community to control industrial societies and manage to mobilize resources in large scale. During World War II, involved states were trying to ensure cheap access to oil fields. Over the decades thereafter, discoveries were made in the climate change science that revealed how human actions were increasing the level of greenhouse gases in the atmosphere.[14]

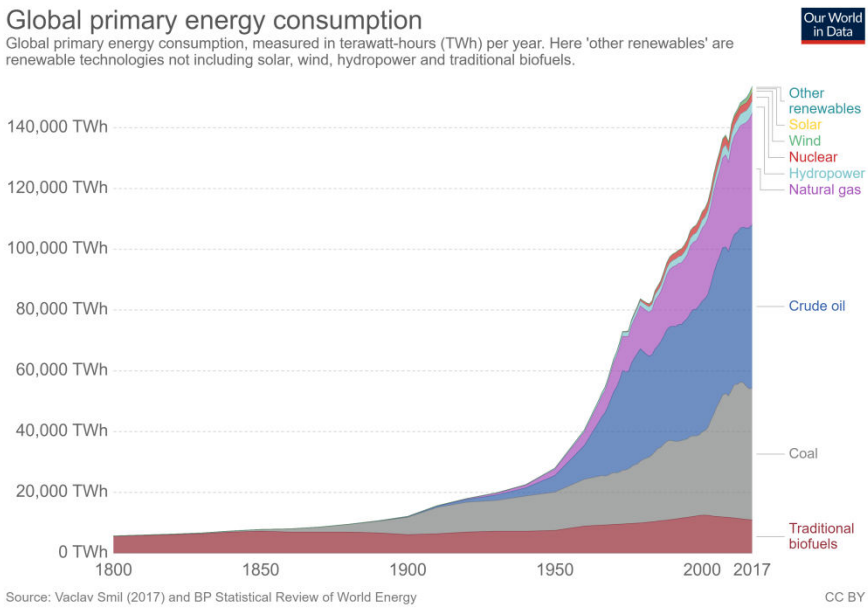
Energy management as a separate discipline, however, began to evolve after the first oil crisis of 1973 and really came into effect after the second oil crisis of 1979 when real energy prices rose dramatically. More specifically, in 1973, Organization of the Petroleum Exporting Countries (OPEC), implemented an oil embargo by prohibiting certain countries to buy oil from OPEC. This caused recessions in many economies of the world. It was the first time that countries realized that they cannot be dependent on foreign exporters for energy security. In 1979, the second "Oil crisis" occurred, which strengthened the public opinion towards renewable energy sources[15].

During 1990s the focus of the international community was set on energy management. Before the turn of the century, energy management as a discipline faced a decline which was the result of two factors, the reduction in real prices and general corporate downsizing. The reduction of prices in real terms and market liberalization created opportunities for effective purchasing strategies. Thus, most of the attention on energy shifted purely to purchasing. The environment started to emerge as an implication in this period and many companies incorporated energy management into wider environmental initiatives[16].

In the first decade of the 21st century, countries turned their focus on carbon reduction. From about 2010 policy interest in energy efficiency started to grow globally. There was increasing recognition of the role that energy efficiency could play in meeting climate objectives as well as the scale of the economic opportunity efficiency presents.

[14] "Global Warming Timeline". 2017. History.Aip.Org. https://history.aip.org/climate/timeline.htm.
[15] https://www.onlyelevenpercent.com/a-brief-history-of-energy-efficiency/
[16] Ibid.

Sustainable Development Goal #7



Ban Ki-moon once said that "energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive"[17] With a global population of 7 billion people projected to increase to 9 billion people by 2050, adopting sustainable energy practices is mandatory to ensure that all sectors of society experience the social and economic benefits that energy can provide[18]. With approximately 39% of the global population still relying on non-renewable energy sources like coal and natural gas, renewable sources of energy are very helpful in the effort to combat poverty. Access to sustainable energy can increase the standard of living of modern societies through improved health, education, and household conditions, as well as through productivity powered by manufacturing and technology revolutions. SDG #7 and its targets were adopted to ensure that by 2030, the global population will enjoy universal "access to affordable, reliable and modern" energy services, with substantial new sources of renewable energy and increased energy efficiency. More than 2.9 billion people do not have access to modern energy sources, especially for basic needs, while 1.1 billion people do not have access to electricity[19].

To implement SDG 7, particularly target 7.2 to substantially increase the share of renewable energy sources, it is essential for global efforts to turn to sustainable and low-emission energy technologies[20]. These technologies include renewable energy sources, which can be defined as "energy derived from natural processes (for instance, sunlight and wind) that are replenished at a faster rate than they are consumed"[21].Sources of renewable energy include wind, hydro, geothermal, and solar energy.

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[17] Ban, Remarks at Center for Global Development event on "Delivering Sustainable Energy for All: Opportunities at Rio+20", 2012.
[18] UN-Energy, Energy: A Brief Discussion on Goals, Targets and Indicators, 2014.
[19] UNDP, UNDP Support to the Implementation of Sustainable Development Goal 7: Affordable and Clean Energy, 2017
[20] UNDP, UNDP Support to the Implementation of Sustainable Development Goal 7: Affordable and Clean Energy, 2017
[21] IEA, Renewable Energy, 2017

SDG 7's target 7.1 calls upon the international community to ensure universal access to affordable, reliable, and modern energy services by 2030. This target highlights the importance of equal access to energy services, in particular for marginalized groups such as women and the rural poor[22]. Efforts to increase energy access must also take into consideration the affordability and reliability of the energy supply and services. Increasing sustainable energy across all sectors of society is a must for social and economic development[23]. There are 1.2 billion people without electricity access, with a majority living in rural areas. Even if electricity is available, it may be unreliable and unaffordable. As a consequence, rural communities lack the necessary energy services to support a decent standard of living and promote economic productivity.

Energy efficiency and economic growth

It is agreed by many economists that there is a strong connection between energy use and economic development. There is a parallel (positive) growth trend between energy demand and gross domestic product (GDP). Ageel, A and Mohammad, S.B (2001) ran a cointegration on energy and its relationship with economic growth in Pakistan and found that increase in electricity consumption leads to economic growth. increase in the electricity production will avoid the paralysation of the industrial production[24]. Increased industrial production will eventually upsize output. Thus, this shows that electricity production should become an economic policy high-priority objective which should be urgently responded to. Energy efficiency is also called efficient energy use. It is not just about reducing energy utility bills. It also includes increasing revenue through greater productivity. Energy efficiency is an indispensable part of every effort to improve energy productivity. Undoubtedly, energy efficiency contributes to wealth. Energy efficiency offers another option for meeting air quality objectives in that carbon emissions are reduced proportionately with fossil fuel consumption. Furthermore, energy efficiencyrefers to the enhancement of products and practices that result in a reduction in the amount of energy necessary to provide energy services such as lighting, cooking, heating.Classical economists did not consider energy as an important element in the production process and neither did the Neoclassicals. Today, economistsreached the

[22] UN-Energy, Energy: A Brief Discussion on Goals, Targets and Indicators, 2014.
[23] UNDP, Delivering Sustainable Energy in a Changing Climate: Strategy Note on Sustainable Energy 2017-2021, 2
[24] Aqeel, A. & Mohammad Sabihuddin Butt, M. S. (2001): The relationship between energy consumption and economic growth in Pakistan, Asia-Pacific Development Journal, 8(2). 101 – 110.

conclusionthat not only does energy is a factor of production; it also acts as a booster to the economic growth of a nation[25].

Energy security

Energy security is the ability of rendering energy supply systems able to balance energy availability and pricing. Can all the contributors to the energy supply chain bring competitively priced energy reliably, safely, and timely to the consumers? The factors that put energy security at risk are extreme weather incidents, imbalanced electricity supply and demand and concentrations of fossil fuel resources in specific regions all around the globe. The most commonly known disruption is caused due to geopolitical reasons. The only way to ensure energy security while encouraging sustainable development in energy is through producing and delivering energy sources that are friendly for the environment and increasing the overall energy usage efficiency[26].

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

Western Europe

These states relied mainly on fossil fuels since the industrial revolution. In the recent decades, there has been noticeable turn towards the reduction of reliance on fossil fuels, and the transition into alternative renewable energy sources. Their financial position provides them with the ability to continuously diversify their energy sources and explore alternative energy resources. Countries such as the United Kingdom, Germany, and France are the pioneers of the shift to renewable energy in Europe.

Eastern Europe

The less wealthy counterparts are heavily, if not solely, reliant on the gas produced from Russia. There are the beginning indications of shift towards renewable energy sources through following the actions taken and accepting the support from the Western nations. Their lack of

[25]Gbadebo, O.O &Chinedu, O., Journal of Economics and International Finance Vol. 1(2), pp. 044-058, July 2009 Available online at http://www.academicjournals.org/JEIF

[26]Organisation for Economic Cooperation and Development. 2007. “OECD Contribution to the United Nations Commission on Sustainable Development 15: Energy for Sustainable Development”. https://www.oecd.org/greengrowth/38509686.pdf

energy security and their dependence on Russian energy have risen concerns in many international organizations, mainly NATO[27].

North America

Bearing in mind their economic capacity and resources to mitigate their reliance on fossil fuels, the United States and Canada can take on active roles in pressing the international community towards sustainable development in energy. Previously observed, the U.S. has established strong relationships with Western Europe through diplomatic ties in order to participate in policy reforms in the European Union. Their existing supply of natural resources could assist the rest of the world in its transition away from the heavy dependence of fossil fuels[28].

South America

By 2015, almost every country in South America had established renewable energy targets and imposed laws to assist their achievement. Latin America has some of the pioneering nations in promoting more effective implementation of renewable energy mechanisms[29]. Brazil is the key player due to its fossil fuel supplies and advancement in renewable energy, its geographic location as well as market size would be optimal for facilitating regional energy integration. Through bilateral agreements between countries in the region, the energy transition in South America is progressing impressively[30].

Africa

The energy consumption of Africa in 2004 was more than 80% dependent on conventional thermal power generation. Majority of this derives from Southern Africa, Nigeria, and North Africa. The disparity between African nations' transition towards cleaner energy supplies is tremendous, countries especially in Sub Saharan Africa still have limited access to stable energy supplies due to poor infrastructure and high prices. Certain countries such as South Africa and Mauritius have successfully turned to privatization or foreign investment to further progress energy security and

[27] Chyong, Chi-Kong. Tcherneva, Vessela. 2015. "Europe's Vulnerability on Russian Gas". European Council on Foreign Relations. http://www.ecfr.eu/article/commentary_europes_vulnerability_on_russian_gas

[28] http://geopoliticsofrenewables.org/report/the-global-energy-transformation

[29] International Renewable Energy Agency. 2015. "Renewable Energy in Latin America 2015: An Overview of Policies".

[30] International Institute for Sustainable Development. 2010. "Energy Security in South America". https://www.iisd.org/sites/default/files/publications/energy_security_south_america.pdf

sustainability. Other countries in Africa have a strong dependence on their abundant natural resources but are noticing the importance of alternative energy sources[31].

International Energy Agency (IEA)

The International Energy Agency (IEA) is an international energy forum comprised of 29 Member States that mainly focuses on promoting energy security and enhancing sustainable energy development for economic and environmental prosperity[32]. IEA provides a series of frameworks and regional expert workshops to foster economic and technological advancements in the energy sector, in order to assist Member States as far as the implementation of sustainable energy measures are concerned.

TIMELINE OF EVENTS

Date	Description of Event
2000 BC	Chinese first to use coal as an Energy resource
1821	First natural gas well in US is drilled
1946	US Atomic Energy Commission (AEC) is created
1973	OPEC quadruples price of oil
1974	Joseph Lindmayer develops the first silicon photovoltaic cell for harnessing solar power
1979	Iranian revolution leads to second oil price rise
1986	Chernobyl Accident
2005	Kyoto Protocol
2006	The Stern review is published
2016	Paris Agreement

UN INVOLVEMENT: RELEVANT RESOLUTIONS, TREATIES AND EVENTS

[31]UN-Energy/Africa. 2007. "Energy for Sustainable Development: Policy Options for Africa". https://www.iaea.org/OurWork/ST/NE/Pess/assets/un-energy_africa_pub.pdf
[32] IEA, Our Mission, 2017.

Now, concerning the UN involvement in this matter, one can highlight three major UN efforts towards energy efficiency:

- Resolution 2009/28: A resolution concerning sustainable development, noting: "the progress made by UN-Energy in enhancing United Nations system cooperation and coordination with respect to following up the energy agenda of the World Summit on Sustainable Development, and calls on it to further promote system-wide policy coherence in relation to, inter alia, energy efficiency and renewable energy technologies"[33].
- A/RES/62/197: Promotion of new and renewable sources of energy[34].
- A/RES/60/199: Promotion of new and renewable sources of energy including the implementation of the World Solar Programme 1996-2005[35].
- A/RES/69/309:Reliable and Stable Transit of Energy and its Role in Ensuring Sustainable Development and International Cooperation[36].
- A/RES/69/323: Promotion of new and renewable sources of energy[37].
- A/RES/68/309:United Nations Decade of Sustainable Energy for All[38]
- A/RES/70/1:The goals of sustainable development and the transformational dream of the UN, also issuing energy efficiency matters. Goal #7 refers to energy (Clauses 7.1 to 7.b)[39].
- United Nations Environment Programme: Cooperates with a variety of partners to improve energy efficiency and strengthen the business case for energy efficiency, including at the city level[40].

POINTS TO BE ADDRESSED

[33]https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/documents/2009/resolution-2009-28.pdf
[34]https://undocs.org/en/A/RES/62/197
[35]https://undocs.org/ot/A/RES/60/199
[36]https://undocs.org/en/A/RES/69/309
[37]https://undocs.org/A/RES/69/323
[38]https://undocs.org/en/A/RES/68/309
[39]https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf
[40]https://www.unenvironment.org/explore-topics/energy/what-we-do/energy-efficiency

1. Has current action been sufficient in encouraging sustainable development in energy, if not, what can be done by ECOSOC to do so?
2. How can member states be incentivized to switch from fossil fuels to sustainable energy sources?
3. What implementation steps can be followed?
4. Which is the future role of regional organizations (EU, ASEAN, ECOWAS), economic forums (WTO, OECD) and international energy organizations (IEA, OPEC) concerning energy efficiency?
5. Which is ECOSOC's role in the implementation of the 2030 Agenda and specifically Goal #7?

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"The 2030 Climate and Energy Framework." *Consilium*, 23 Oct. 2017, www.consilium.europa.eu/el/policies/climate-change/2030-climate-and-energy-framework/.

"A/RES/60/199 - O - A/RES/60/199." *O*, undocs.org/ot/A/RES/60/199.

A/RES/62/197 - E - A/RES/62/197, undocs.org/en/A/RES/62/197.

A/RES/68/309 - E - A/RES/68/309, undocs.org/en/A/RES/68/309.

a/Res/69/309 - E - a/Res/69/309, undocs.org/a/res/69/309.

A/RES/69/323 - E - A/RES/69/323, undocs.org/A/RES/69/323.

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