EPPAM BÜLTENİ

İstanbul Aydın Üniversitesi **EPPAM** Yıl 2, Sayı 3, Mart 2017

DIŞ EKONOMİK İLİŞKİLER KURULU-DEİK ENERJİ İŞ KONSEYİ MART TOPLANTISI

Dış Ekonomik İlişkiler Kurulu-DEİK Enerji İş Konseyi İcra Kurulu Mart ayı toplantısı 16 Mart 2017 tarihinde DEİK'te gerçekleştirildi. Toplantıda Sahra-Altı Afrika Enerji Potansiyeli Raporu ve enerji gündemindeki meseleler görüşüldü.

DIŞ EKONOMİK İLİŞKİLER KURULU
FOREIGN ECONOMIC RELATIONS BOARD
ENERJİ İŞ KONSEYİ • ENERGY BUSINESS COUNCIL

İçindekiler

EPPAM BASIN

EPPAM MÜDÜRÜ YRD. DOÇ. DR. FİLİZ KATMAN TGRT HABER'DE

15:00 HABER - 20 MART 2017

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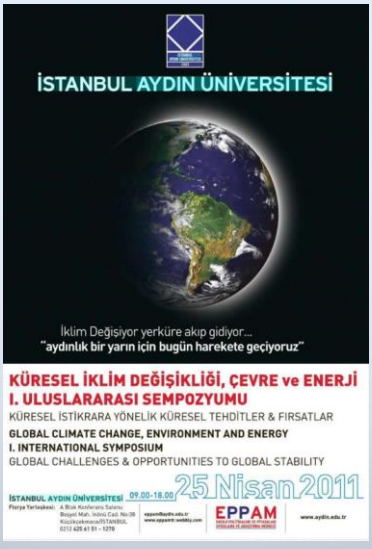
15:00 HABER - 2 MART 2017



EPPAM YAYIN

EPPAM Müdürü Yrd. Doç. Dr. Filiz Katman'ın Ekovitrin Dergisi'ne gündemdeki enerji meseleleri hakkında röportaj verdi. Son dönemde gündeme gelen doğal gaz meselesi ile ilgili gelişmelere ilişkin olarak dünya enerji piyasasındaki gelişmeler, boru hatları arasındaki artan rekabet ve yeni boru hattı projeleri değerlendirildi.

"İstanbul Aydın Üniversitesi Enerji Politikaları ve Piyasaları Uygulama ve Araştırma Merkezi (EPPAM) Müdürü Yrd. Doç. Dr. Filiz Katman, beşinci yılına giren Suriye'deki iç savaşın bölge ülkeleri üzerine olan etkileri, ambargoların kalkmasıyla İran'da yaşanan değişim ve Türkiye'nin enerji politikaları hakkında Ekovitrin'e değerlendirmelerde bulundu. Katman, şöyle konuştu: "Çok önemli enerji kaynaklarına sahip olan Ortadoğu, tarihten bugüne birçok ülkenin üzerinde planlar yaptığı bir bölge. Ortadoğu özellikle Irak'ın bölünmesi ve Arap baharının yaşanmasından sonra daha da önemli bir hale geldi. Son yıllarda Suriye'de yaşanan iç savaş ve IŞİD terör örgütünün faaliyetlerini artırması bölgenin daha da karmaşık bir yapıya bürünmesine neden oldu." Suriye'de beşinci yılına giren iç savaşın en fazla Türkiye'yi etkilediğini belirten Katman, Rusya'nın bölgedeki etkinliğini artırdığına dikkat çekti. Ambargoların kalkmasıyla İran'ın dünyaya açılmasını Ortadoğu'daki gündemi değiştiren bir gelişme olarak tanımlayan Katman, "Herkes İran ile ticaret yapmanın yolunu arıyor. Daha şimdiden birkaç şirket İran ile anlaşma imzaladı. Türkiye'nin atacağı adımlar ve İran'la ilişkilerin geliştirilmesi ekonomik anlamda Türkiye'ye ciddi katkılar sağlayacaktır. Ayrıca Türkiye'nin bölgedeki politikası çatışmaktan ziyade ortak işbirliği sağlanacak zemin oluşturmaktır. İran ile bu mümkün" diye konuştu."

Yrd. Doç. Dr. Filiz Katman

OP-ED: 2040 ENERGY PROJECTIONS

Dariq K Nour, PSIR 3rd Year Student

Energy has become an integral part of our lives in the 21st century. Give us warmth and cold and energy helps us to cook our diets. And help us to connect with our children and the garage lighting and plants entrepreneurs and inventors to build a better world. Energy help us harvest our food and supply our plants with fuel and build our cities and clean waters. And give us moving and keep us in touch with other people near and far. The twenty-first century has seen major changes already in how people use energy; for example, the advent of Internet-connected smartphones made at around 2000 only; today there are more than 2 billion of them worldwide, while this century has also witnessed tremendous developments in energy technology, including those developments that helped uncover the vast resources of oil and natural gas in North America.

In addition to the emergence of this technology is a promising news suggests that the approach of a new era of abundant energy and diversity. Today's energy can be extracted from the depths of the ocean floor and layers of shale and nuclear fission and Biofuels, wind and Sun. More importantly, the continued development of each energy source and use it to develop ways to reduce their impact on the environment. Another positive trend is the ability to find ways to use energy more efficiently, to curb growth in energy use and emissions. The world uses about 10 percent less energy per unit of economic output than it was in 2000, with half of those gains occurred since 2010.

What determines the increase of Energy use and the search of more diversified sources?

The use of energy by the people is in a tremendous increase, and the search for new sources of Energy which will satisfy this increasing need is also increasing. This lead a technological revolution in energy sector and many innovation related in finding reliable source of energy in the coming future; for instance the invention of Shale Gas (natural gas occurring within or extracted from shale) in America and the development and progress in the horizontal drilling (process in which the well is turned horizontally at depth).

There are two main reason which together which other factors are responsible the increase of the energy:

1- Population growth

The world population is increasing at an astonishing rate where two children are born somewhere the world every second this makes a 7200 children per hour and 172,800 per day and if you're a little further math this make a total of 62 and quarter million children a year. This huge increase in population needs more food, water, shelter, more transportation and all this needs energy to work and get enough so this also increases the energy needed to satisfy this needs. Experts are predicting that if the population growth goes the same trend, in 2050 we will

need 50% increase in energy to meet this needs.

2- Standard of living (GDP)

Since the industrial revolution, the consumption of energy has increased with the increase of the standard of living. It is not coincidence that USA with a population of about 300m which forms 5% of total population uses roughly about 20-25% of the world energy consumption while china with a population of 1.3b which made 18% of total world population uses about 20% of world's energy, this indicates that economic growth with the GDP/CAPITA of countries greatly influences the consumption of energy in the world.

The increase of the number of the population of the world and the increase of the standard of livings made inevitable for the energy sector policy makers to find a new sources of energy to meet and satisfy this increase in demand. The type of the energy sources that are used in is determined by:

- Cost of the economy.
- CO2 emissions
- Availability of the energy.

So by taking this three factors into consideration we will try to look the Energy projection in 2040 using petroleum and liquefied fuels, natural gas, coal, biofuels and renewable energy.

Petroleum and liquefied fuels:

According the International Energy Outlook 2016 (IEO2016) Reference case, projected that the consumption of petroleum and other liquefied fuels will increase from 90 million barrels per day (b/d) in 2012 to 100 million b/d in 2020 and 121 million b/d in 2040, an 1.9% increase of natural gas will make it still one of the dominant source of energy in 2040s. Most of these increase in consumption is expected to come from non- organization for economic cooperation and development (non- OECD) in Asia specially China and India, Middle East and Africa where the strong economic growth is expected to happen rather than OECD members mostly in Europe and America where economy is expected to increase also but in a steady way and in a lesser gear than the non- OECD countries. To satisfy this need the IEO 2016 projected liquids production increases by 31 million b/d over the 2012–40 period. Crude oil and lease condensate, and other liquid fuels (Natural gas and biofuel) will be the source of this energy demand. In addition to that the production of commercial amount of Shale Gas by USA, Canada, Argentina, china will inject a more Natural gas in the market which will increase the availability of them at the same time it will decrease the price of natural gas.

Natural Gas:

Natural gas which consisting largely of methane and other hydrocarbons, lies underground is one of the most used from of energy specially in the industrial sector. The consumption of the natural gas is projected to increase from 120 trillion cubic feet (Tcf) in 2012 to 203 Tcf in 2040 in the International Energy Outlook 2016 (IEO2016) Reference case. The

plenty of gas resource with the strong production contributed competition of natural gas among the other resource. Beside it is efficiency, natural gas also emits less CO2 compared to coal and petroleum and this acts as leverage and may encourage the increase of the usage of the natural gas in the forthcoming future. Similar as the petroleum, the demand of the natural gas will mostly come from non OECD countries especially in Asia twice as much as the OECD members by an average of 2.1% per year compared to 1.1% per year for the OECD countries due to the continuity of the economic growth and the expansion of the production industries. To meet this increasing demand the IEO2016 Reference case, projected that the production of the natural gas will increase by 69% by 2040 with a prediction of this increase non-OECD Asia (18.7 Tcf), the Middle East (16.6 Tcf), and the OECD Americas (15.5 Tcf).

Coal:

In the International Energy Outlook 2016 (IEO2016) Reference case, coal will still remain the second-biggest energy source of the world behind petroleum and other liquids until 2030. From 2030 to 2040 it will turn to the third largest source of energy after both petroleum and natural gas. Until then the consumption of coal will increase in 0.6% per year of about from 153 quadrillion Btu in 2012 to 169 quadrillion Btu in 2020 and to 180 quadrillion Btu in 2040. The does not include the recent finalized Clean Power Plan (CPP) which would reduce world coal consumption to 165 quadrillion Btu in 2020 and to 176 quadrillion Btu in 2040. By this increase, coal is the least growing energy of about 0.6% per year compared to other forms of energy. China is the world's first coal consumer by about 50% of the total consumption of the world along with USA and India. The recent anti-climate change activities and the efforts made by the policy makers to reduce the amount of CO2 caused the reduction of the usage of the coal for at least in the coming future.

Renewable energy:

Renewable energy include solar, wind, biomass etc are the fastest growing energy resources of the projected period, an increase of about 2.9% per year is predicted by the IEO (2016) during the projected period. Non hydro power renewables are the fastest growing in this new era of the renewables from 5% of the total world consumption to in 2012 to 14% share in 2040 with most of the growth coming from the wind. This is not included the recent CCP regulation in the USA which would have a reduction of about of 21 percent (about 4 quadrillion Btu) in U.S. coal consumption in 2020 and 24 percent (almost 5 quadrillion Btu) in 2040. By the implementation of the CCP protocol the consumption of coal is projected to reduce about 165 quadrillion Btu in 2020 and to 176 quadrillion Btu in 2040, as projected by the IEO (2016) outlook. The future use of renewables are the main source of energy is still far from the reality due to several reasons.

Technology: Lack of technology that can work effective as the current non-renewable technology and by that only a small amount of

renewable energy can be produced.

Economy: Aside form the expensive technology that renewable energy needs, also the price of the renewable energy is still far more expensive than that of the non-renewables.

Availability: Renewable energy availability is also another barrier to the improvement in this sect because not always the wind is bellowing and the sun is shining.

To sum-up; the consumption of energy both non-renewable and renewable will continue to rise in the future in line up with increase of the population growth and the increase of the standard of livings of the world with a projected increase of the middleclass from 2 billion to 7 billion by 2030. Most of this increase in demand will expected to occur in non-OECD members particularly China and India which are the first and the second largest population in the world respectively. On the other way the use of renewable energy will increase due to the recent protocols signed by the industrialized countries which controls the amount of CO2 emissions a step forward to halt the climate change in the future.

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