### Oil & Gas Bulletin

**22.11.2013** 



### Turkey proposes monitoring Iraqi oil

Hürriyet Daily News, 16.11.2013



Ankara proposed a formula to both the Kurdish Regional Government (KRG) and central government to build multibillion dollar oil and gas pipelines to ship the autonomous region's rich hydrocarbon reserves to world markets through Ceyhan port.

The proposal aims to tie oil and gas money to a Turkish state bank in accordance with the agreed share of %83 to the Iraqi central government and %17 to the KRG after measuring the amount of oil along with monitoring a commission, said the minister of energy, adding the parties in Iraq would then decide how to share the money.

Meeting with the Diplomatic Correspondent Associating yesterday, Energy Minister Taner Yildiz announced a proposal to purchase and transfer the KRG's, with which Ankara maintains open dialogue, natural resources. "We have to monitor the money. The rest is not our issue," he said. When asked if Ankara had the sides' consent for the proposal, Yildiz said, "We know the Iraqi government's concerns and we are building a structure to respond those concerns." The minister said he discussed the formula with the Iraqi Minister of Oil, Hussain al-Shahristani, who expressed Baghdad's concern about the deal, and that Turkey will continue to discuss the proposal with Iraqi officials, including Prime Minister Nouri al-Maliki.

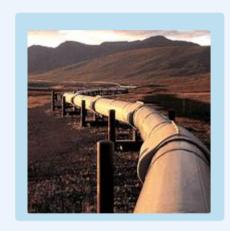
During a visit by the KRG's Prime Minister Nechirvan Barzani last week, both sides agreed on the fundamentals of the deals for a second oil pipeline and a gas route from the north of Iraq to Turkey. Yildiz said he conveyed Turkey's proposal to al-Shahristani before meeting with the Iraqi Kurdish official. Yildiz also noted the energy issue would not be on the agenda of the visit by Massoud Barzani, president of the KRG, because Turkey does not want the energy issue to "cast a shadow over the social feature" of the visit. Turkey will measure the oil flow, the minister said, stressing the need for commission made up of representatives from the central government and/or the KRG, Turkish officials or international observers, which will give consent to the amount of flow.

Turkey will conduct energy deals with the KRG in 13 areas, the minister said. Some of these contacts will be carried by the Turkish Energy Company (TEC), which was set up by Ankara to be Turkey's counterpart in dealings with the KRG or with partnerships of private companies, he added. Turkey rejects further reduction of Iranian oil imports Yildiz said Turkey rejects further reducing its oil imports from neighboring Iran, which is under U.S. sanctions over its nuclear program. "We have reduced our imports to 105,000 barrels a day from 140,000 barrels. We cannot reduce it anymore," Yildiz said. Yildiz expressed Turkey's will to make an energy cooperation agreement with the U.S., citing an upcoming visit by the U.S. Energy Secretary Ernest Moniz to Turkey on Nov. 21. The minister also expressed that Turkey was ready to sign an agreement with the U.S. on shale gas.



## Kurdish oil seen flowing through Turkish pipeline within weeks

Reuters, 22.11.2013



KRG's oil exports may start flowing through its own pipeline via Turkey within weeks, and without necessarily agreeing payment protocol with the Baghdad central government, the region's natural resources minister Ashti Hawrami said.

"We could even see flows before Christmas," he told a conference in Istanbul on Thursday, bringing forward previous forecasts that the first flows would be early next year. The 300,000 barrel per day (bpd) pipeline is being built by Iraq's semi-autonomous Kurdish Regional Government (KRG) which has proposed taking 17 percent of Iraq's total oil revenues, based on an article in the country's constitution.

Hawrami said Arbil would press ahead with exporting oil whether or not Baghdad agree the payment plan. "We are not ignoring Baghdad but if nobody wants to speak with us, that's fine. We have been patient for ten years." Once the pipeline comes online KRG will phase out exporting its exports by road to the Mediterranean port of Ceyhan.

"A big part of our production will go into this oil pipeline," Mehmet Sepil, president of Anglo-Turkish oilfield operator Genel Energy said on Friday, reiterating that oil would start flowing through the KRG pipeline within weeks. He said Genel has the capacity to produce about 230,000 bpd at two of its fields - Taq Taq and Tawke - in KRG. The company is at exploration stage in other fields in the region. "By the end of 2014, our capacity in the two fields could go up to 350,000 bpd through new wells," he said.

Turkey's intense courtship of KRG has infuriated Baghdad and raised eyebrows in Washington which fears such KRG's independence could lead to a break-up of Iraq. But there is little either can do to prevent the plans. "KRG is on the verge of becoming a major world exporter of oil, first, and then gas," Tony Hayward, Genel's chief executive officer and a former CEO of BP, told a panel. Turkey has proposed that the revenues of KRG's oil exports be collected in an escrow account at a Turkish state bank until Baghdad and Arbil resolve their differences over the revenue.



### Baghdad resolute on marketing Kurdish oil

Argus, 21.11.2013



Iraq's federal government is rejecting a Turkish proposal that payment for crude exports from the semi-autonomous KRG pass through an escrow account at a Turkish bank. Baghdad continues to insist that any crude exported from the Kurdish region must be handled by state marketer Somo, with the proceeds going straight to the Iraqi treasury.

"The government has already announced that any oil that is exported from Iraq is the responsibility of Somo, which is the only body authorized to export oil, and revenues must go to the government-managed fund that covers budgetary spending," Iraqi oil ministry spokesman Assem Jihad told.

Turkish Energy Minister Taner Yildiz proposed to Iraq's federal government that an escrow account be opened at a Turkish bank for the proceeds of crude sold from the region controlled by the Kurdish Regional Government (KRG), with Baghdad's 83pc share of those proceeds transferred to the Iraqi government. Jihad said, "No such agreement has been reached." "There is no need to open a special account in Turkey for the revenues to be deposited there so that it can be apportioned," said Jihad.

"This would require a [Baghdad] government decision and an agreement, and this has not occurred. The position remains unchanged. The KRG must hand over that oil to the federal government and it will then be exported through the pipeline under the supervision of Somo, which handles oil sales contracts," Jihad added. "The revenues go to the federal treasury, where apportioning occurs. The KRG already gets a share of oil revenues, so there is no reason for it to export its oil and get paid somewhere else," Jihad added.

Any different arrangement would require "a clear agreement in place" with Turkey "that the cabinet would approve, but so far, there have not been any new developments regarding this," said Jihad. The KRG has built a 300,000 b/d pipeline that it is tying in to Iraq's Kirkuk-Ceyhan pipeline at the border with Turkey, beyond a federally-controlled Iraqi metering station. This means the Iraqi government will not be able audit volumes of crude injected by the KRG into the Kirkuk-Ceyhan pipeline. The KRG says it plans to export crude produced in KRG independently of Baghdad, which considers all exports not supervised by Somo as smuggling.



## Plan to pipe Basra oil to Turkey faces uphill battle

Today's Zaman, 20.11.2013



Reports are claiming that Ankara's recent offer to Baghdad to pipe Basra oil to Turkey through the Kurdish Regional Government (KRG) is unlikely to go through. According to media reports, after establishing fresh dialogue with Iraq with bilateral visits between Baghdad and Ankara, Turkey offered Iraqi Prime Minister Nouri al-Maliki to transport oil from Basra to world markets through pipelines to be constructed by TPAO and BOTAS.

In an interview with Today's Zaman, World Energy Council Turkish National Committee board member Necdet Pamir called Turkey's offer a pipe dream.

Due to Bagdad's disapproval of Turkey's energy deals with the KRG, he continued, Turkey's offer is unlikely to be realized. "The situation in Iraq is adverse. Iraqi Deputy Prime Minister Hussain al-Shahristani said \$6.5 billion worth of oil that belongs to all the Iraqi people by law has been 'smuggled' with trucks via Turkey and Iran since 2008. Furthermore, new pipelines from northern Iraq to Turkey are planned to bypass the Habur customs gate, which is under the control of the Iraqi state oil marketing agency, SOMO. Therefore, Turkey's offer is like trickery," Pamir said.

Meanwhile, Turkish Natural Resources and Energy Minister Taner Yildiz said Tuesday that Turkey is aware that energy resources within northern Iraq belong to all of Iraq. Speaking at a press conference in Paris, where he chaired the opening session of an International Energy Agency (IEA) meeting, Yildiz said that Turkey and Iraq should agree on a solution, and that deals with northern Iraq and the central Iraqi government would help Iraqi unity.

Mesut Cevikalp, a journalist for Aksiyon magazine, told Today's Zaman that the motivation for Turkey's offer is more political than economic, adding that Turkey is trying to ease the Iraqi central government's annoyance over current oil deals between Turkey and the KRG. Cevikalp also said that the proposed route for the Basra oil pipeline, which would connect Bagdad with northern Iraq, is too long and that the project would work only after stability is achieved in Iraq.

On Nov. 15, Yildiz dismissed claims that Turkey was harming Iraqi unity by buying oil from the autonomous administration in northern Iraq. On the contrary, he said, buying KRG oil will help facilitate the normalization of relations between the KRG and Iraq's central government. "It is a serious guarantee of Iraqi unity to transfer its petrol or natural gas through Turkey," Yildiz told journalists. "Each of the energy agreements that Turkey makes with the Iraqi government and all contracts with the Kurdish Regional Government will help establish a mechanism to share the oil revenues," Yildiz said. He added that the oil revenue sharing system currently in place in Iraq is not working.



Considering the increase in volume of oil transported by the Kirkuk-Yumurtalık pipeline, Yildiz said that the relationship between the KRG and the Iraqi central government is normalizing. The resources minister of the KRG has said that his administration wants to build a second link with Turkey with an export target of 3 million barrels of oil per day. The second link is expected to run parallel to the Kirkuk-Yumurtalık pipeline administered by Baghdad. Kurdish-built pipelines, by offering a route to Western markets that bypasses Iraq's national infrastructure, may encourage the KRG to seek greater independence from Baghdad, with which it has been at loggerheads over oil-production contracts and revenue sharing.

Turkey's independent energy relations with the KRG are straining relations between Ankara and Baghdad. Economic relations with Arbil, the KRG capital, particularly oil deals, that bypass Baghdad have angered the central Iraqi administration, which wants Turkey to ask it for permission before taking any action in the region. Turkey claimed it was acting in compliance with the Iraqi federal constitution, which allocates shares of energy revenues to the KRG.

Oil analyst and Turkish Association for Energy Economics (TRAEE) President Gürkan Kumbaroglu welcomes Turkey's initiative for the Basra pipeline and a second pipeline from northern Iraq. He told Today's Zaman it is a good thing for Turkey to become an international energy terminal. "In a broader framework, I think oil trade revenues will also contribute to the economic development of the region," Kumbaroglu said.

Yildiz said that he had discussed important issues with al-Shahristani during a visit to South Korea last month, adding: "We realized that our common benefits would be solidified with the future agreement we will certainly sign. Therefore, in 2014 we will see positive results that satisfy Turkey's needs and accelerate the normalization in Iraq."

Yildiz went on to say that in a globalized world in which oil can be transported all over the world, no one should expect Turkey to be indifferent to oil projects in northern Iraq, 100 kilometers away from its border. According to media reports, the Basra project is expected to include oil and natural gas reserves in other regions of Iraq, and Energy Ministry sources expect the offer to be on the agenda in the Turkey-Iraq High Level Strategic Cooperation meeting to be held in early January.



## Oil shipment from Iraq not to affect oil prices

Hürriyet Daily News, 19.11.2013



Oil flow from Iraq or the Kurdish Regional Government (KRG) through Turkey will not affect Turkey's oil prices, Energy Minister Taner Yildiz said during an interview with the private broadcaster NTV in Paris yesterday.

Following a question about a potential pipeline between the Persian Gulf and Turkey, Yildiz stated that the Kirkuk-Ceyhan crude pipeline was more convenient for oil shipment, rather than a pipeline from the Persian Gulf to Turkey, because the Persian Gulf's coasts were not convenient for shipment. The Kirkuk-Ceyhan pipeline is able to deliver to global markets that have higher capacity, he said.

There was some vulnerability, but that have been resolved, he said, adding the pipeline was a safe route and market for particularly Iraq and other countries in the Middle East. Yildiz also said oil shipment from Iraq or the KRG would not have effects on Turkey's oil prices. The oil prices in the world are determined according to one single price, he said. While Turkey imports \$60 billion of energy, it exports \$8 billion, he said, adding that this \$52 billion energy import was used in transport. He noted at this point, Turkey's security for supply is also crucial and the number of supplier countries should rise.

However, there is a long-running dispute between the central government in Baghdad and the autonomous KRG over how to develop the country's resources. Yildiz noted gains from future deals with the central government of Iraq or the KRG belonged to all of Iraq. Last week, Ankara proposed a formula to both the KRG and the central government to build multi-billion dollar oil and gas pipelines to ship the autonomous region's rich hydrocarbon reserves to world markets. The proposal aims to tie oil and gas money to a Turkish state bank in accordance with the agreed share of 83% to the Iraqi central government and 17% to the KRG, after measuring the amount of oil along with a monitoring commission Yildiz said, adding, the parties in Iraq would then decide how to share the money.



### Putin confirms plans for offshore South Stream section in Turkish economic zone

Voice of Russia. 22.11.2013



Russian President Vladimir Putin has confirmed plans to launch the construction of an offshore section of the South Stream gas pipeline in a Turkish economic zone next year. Bilateral energy cooperation has evolved into real strategic partnership, Putin said at a meeting of the Russian-Turkish High-Level Cooperation Council in St. Petersburg.

"In 2014, we are planning to start building an offshore section of the South Stream gas pipeline on the bottom of the Black Sea in Turkey's exclusive economic zone," he said. He added that the Blue Stream gas pipeline, laid across the seabed of the Black Sea, has also been operating reliably.

Bilateral trade rose to \$34 billion in 2012 but dropped by 7.5 percent in January-September 2013 due to an unfavorable situation on international markets, Putin said at a meeting of the Russian-Turkish High-Level Cooperation Council in St. Petersburg on Friday. "We believe that this is a temporary decrease and that systemic efforts aimed at improving bilateral goods turnover will help restore positive momentum to our trade," Putin said. Russia and Turkey are successfully expanding investment cooperation, he said. "The Russian investments in the Turkish economy total \$1.57 billion, while Turkish investments in Russia total \$740 million." Industrial, financial and innovative technological ties are also being developed, the Russian leader said.

Russian President Vladimir Putin praised the successful development of Russian-Turkish relations during narrow-format talks on Friday with Turkey's Prime Minister Recep Tayyip Erdogan ahead of a meeting of the bilateral High-Level Cooperation Council in St. Petersburg. "By the way, relations have been progressing well even without our direct involvement," Putin remarked. Erdogan, for his part, accentuated the significance of the talks. Important bilateral issues will be discussed, he said. There are fields in which Russia and Turkey should be working together, he concluded. The talks were held behind closed doors.

Speaking about the issues of bilateral cooperation in the energy sector, Erdogan said "supplies from Russia cover 56% of Turkey's demand in natural gas." The prime minister added Ankara suggested developing new directions of cooperation in the energy sector, including nuclear energy. "In this sphere," he said, "we have made a breakthrough —we have been constructing a nuclear power plant at the Akkuyu site jointly with Russia. The construction is underway; the project has been active for three years now." "We pay great attention to it, and the very fact we have made our first step in this sphere jointly with Russia speaks for itself."



## Shah Deniz II awaits TANAP FID for project commencement

Hürriyet Daily News, 22.11.2013



Al Cook, the Vice President of Shah Deniz Development, emphasizes the importance for TANAP's key shareholders, Turkey and Azerbaijan, to finalize their decision on investment plans to carry gas.

The Shah Deniz 2 consortium is awaiting the partnership heading the Trans Anatolian Natural Gas Pipeline project to make their FID prior to making their own, with the FID required to trigger the execution of plans to develop Azerbaijani gas fields, according to a high level BP executive. The TANAP oil pipeline will be carrying gas from Azerbaijan through Georgia and Turkey to European markets the year.

Talking yesterday at the Atlantic Council summit in Istanbul, Al Cook, the Vice President of Shah Deniz Development, emphasized the importance for TANAP's key shareholders, Turkey and Azerbaijan, to finalize their decision on investment plans in order for the FID required for the Shah Deniz 2 project to be made. Yet the reverse is also true for TANAP, according to energy experts, who said TANAP is also waiting for the Shah Deniz 2 consortium to make its final investment decision in order for the project to receive the green light.

"Shah Deniz 2 needs to make the FID before the end of the year because they can no longer delay it," John Roberts, an energy security specialist, told the Daily News. Al Cook expressed confidence that the Shah Deniz 2's final investment decision will be made before the end of the year, although admitting that "there will be few very busy weeks ahead." TANAP foresees to carry 31 bcm of gas annually while the initial Azeri gas to be produced is expected to be 16 bcm.

Al Cook asserted his confidence in the additional production of gas while talking about new gas fields in Azerbaijan, likening them to a "main course"; in contrast, the initial 16 bcm of gas that is expected to flow from TANAP could serve as an appetizer rather, using the metaphor of a meal to distinguish between the two. "TANAP links the largest source of gas to the largest gas market which is Europe and this underpins our confidence," he said. Al Cook called on the governments within the scope of the projects to continue extending their support.

"In the last five years period we learned that the support of governments was essential," he said, calling first on Turkey and Azerbaijan's continued support, given their role as key players in the projects. Cook also mentioned the U.S. Government's support, which began back in the early 90's, enabling the construction of the Baku-Tbilisi-Ceyhan oil pipeline, the region's first. Cook also said they would like to see "the considerable role" played by the European Commission to continue. The European Commission's support for the diversification of supply routes should not only be limited to massive pipeline projects like TANAP but also to smaller ones that will be constructed, connecting Balkan countries.



Azeri oil is planned to be carried to Turkish border via TANAP and then to Greece, Albania and Italy through the Trans Adriatic Pipeline (TAP). The Greek company DEPA is already continuing work to expand its connection with Bulgaria, with plans to build further smaller pipelines that will connect with pipeline networks in Romania, Hungary and Serbia, according to Harry Sachinis the CEO of DEPA.

## Turkey to carry out four offshore drillings next year

AA, 21.11.2013



Turkish state-run petroleum company TPAO plans to establish four off-shore drilling sites next year, one being deep-water drilling, according to sources from the Ministry of Energy. The ministry has increased efforts to expand Turkey's domestic oil and gas supply, which is currently very limited, both in domestic terms and with foreign partners.

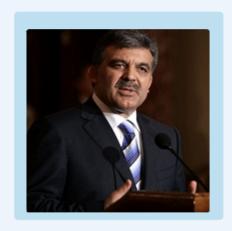
In this vein, the allocated funds for TPAO is planned to reach up to 1.4 billion Turkish Liras in 2014 from a 33.3 percent increase from this year. TPAO's seismic ship, named "Barbaros Hayrettin Pasa," has continued its oil and gas exploration activities since the beginning of 2013.

The government launched a series of activities to develop a ship which can make two-dimensional and three-dimensional off-shore explorations under the guidance of the General Directorate of Mineral Research and Exploration (MTA). A tender was then held for this purpose. General Directorate of Defense Industry and the winning company have started to develop the ship, which is scheduled to be completed by 2015. The MTA will also make more investments in mining and geothermal explorations, raising its funds up to 200 million liras in 2014.



## President Gül: EU must credit Turkey's energy role

Hürriyet Daily News, 22.11.2013



Turkey's role in supplying energy is vital for the European Union's energy security, President Abdullah Gül has said, urging the union to consider Turkey's key position during accession talks. "You must closely follow the middle- and long-term strategic projects developed to carry Caucasian, Central Asian and Middle Eastern natural gas ... to Europe.

We believe these projects will help the consolidation of Europe's security, stability and welfare, in addition to maintaining our energy security," the president said in a speech delivered on the first of the two-day Atlantic Council Energy and Economy Summit organized in Istanbul.

Expressing his regret that the energy chapter in the negotiations between the EU and Turkey had not yet begun, Gül called on the union to step up to the plate regarding the issue. "I believe it's important to underline that energy is one of the blocked chapters in our membership negotiations with the EU. Despite our efforts, this is a great contradiction and is unfortunate. No doubt, the side that should resolve this contradiction is the EU," he said. Stressing that the country's geographical location put it in the heart of the continent's energy sources, Gül also said Turkey would be the most reasonable and feasible route through which to carry resources recently discovered in the eastern Mediterranean, which are estimated to be more than 3.5 trillion cubic meters.

Turkey has begun to voice its eagerness to be involved in the transportation of natural gas reserves discovered by Greek Cyprus and Israel to Europe, which has been seeking to diversify its energy sources to relieve dependency on Russia. According to Gül, Turkey's involvement in such a project would contribute to the resolution of regional problems, including the Cyprus issue. Considering Turkey has had rough relations with both of those countries, many analysts warn against the challenges of such an alliance in terms of the economy. Grand Duke Henri of Luxembourg, who also spoke at the conference in his first visit to Turkey, lent full support to Gül's remarks in his speech.

"The EU is dependent on Turkey in order to reduce its dependency on the limited number of suppliers," Luxembourg's head of state said. "Particularly the Southern Gas corridor may provide the sources the EU needs." The grand duke also said the EU not only needed Turkey, "in European energy, but also as a major player in the political scene." "Turkey is a bridge for the EU toward the Middle East, Caucasia, Central Asia and North Africa. The EU cannot do without Turkey. This is why Luxembourg supports Turkey's European aspiration to become a member of the EU and warmly welcomes the resumption of negotiations early this month," he said. He also said Turkey had a major role to play in energy supply security because of its geographical location, noting that it was a potential energy hub at the crossroad between major energy producers and the most energy-hungry countries in the world.



### **Yildiz: Energy consumption in Turkey** doubled

Hürriyet Daily News (AFP), 21.11.2013



Turkey's energy consumption has doubled within the past 10 years, the Energy Minister has said, vowing to double it again in the next 10 years. "In the past 10 years, energy utilization has jumped two-fold thanks to sustainable stability," Minister Taner Yıldız said while speaking at the opening of the Atlantic Council Energy and Economy Summit.

"We aim to double it within the next 10 years as well," he added, stating this would require \$118 billion of investments to be made. According to Yildiz, who said Turkey would continue investing in energy as much as needed for the country to keep up with its region's energy growth.

"Turkey will continue with a structure that is becoming more liberal, free and privatized and in a way that provides opportunities for international capital within a legal basis," he said. Praising Nordic countries for their success in energy investments, Yildiz said all governments and companies were obliged to complete \$17.9 trillion worth of investment by 2035 as "there are still 1.3 billion people in the world that haven't met with electricity or energy."

## GDF SUEZ may invest 7-8 billion euros in Turkey

Hürriyet Daily News, 19.11.2013



Energy Minister Taner Yıldız has said France's GDF Suez plans to invest in 7-8 billion euros in Turkey, adding that he will be meeting with a number of international energy companies in Paris. "I'll meet a number of global companies in Paris to discuss cooperation opportunities and to hear their investment plans in Turkey. One of them is GDF Suez, which wants to invest some 7-8 billion euros in Turkey," he said while being interviewed live on TRT.

Turkey's second planned nuclear power plant will be built by a consortium between Japan's Mitsubishi Heavy Industries Ltd, Itochu Corporation and France's GDF Suez.



"Turkey offers over \$118 billion of investment opportunities in energy right now. I'll also be meeting with the Energy Minister of Norway, a country which is leading in renewable energy technologies," he noted. Energy Minister Taner Yildiz will chair the International Energy Agency's (IEA) ministerial meeting due to take place in Paris between Nov. 19 and 21. "Turkey will chair the IEA's ministerial meeting for the first time in the 40th anniversary of the agency. Turkey's sturdy, rational energy policies, coupled with political stability have played a big role for the IEA in process to decide the chair of this year's meeting," he said. The IEA ministerial meeting is held once every two years to set the broad strategic priorities for the IEA.

### Dependency on oil-fired power costs Iran billions

Today's Zaman, 19.11.2013



Iran's growing reliance on burning oil products to make electricity, due to its inability to extract more natural gas, has cost tens of billions of dollars, the head of the NIGC said on Tuesday. Iran sits on the world's largest known gas reserves, according to estimates by BP but, while demand has surged, it has made slow progress in developing them, largely because of Western sanctions over its nuclear program.

Iran's use of oil middle-distillates for power generation has risen from 8.4 bcm in 1996 to 22.3 bcm in 2012, and has already hit 30 bcm in the last seven months, NIGC director Hamidreza Aragi told the Energy Ministry.

Araqi said the use of liquid fuels rather than gas had in effect cost Iran \$28 billion, but he did not specify a time period or spell out how he had arrived at the figure. Iran's oil minister has warned that gas shortages over the next two years will force Iran to burn more costly and contaminating oil products, such as fuel oil and diesel. Iran's fuel oil exports are expected to plunge over the next few months as winter demand forces it to divert export product to its own power plants.



# IAEA reviews Turkey's progress in nuclear power development

IAEA, 16.11.2013



An IAEA-led team of international experts who reviewed Turkey's programme for introducing nuclear power found that important progress has been made in the development of the country's nuclear infrastructure.

International Atomic Energy Agency noted that the programme enjoys strong government support and recognized several good practices, such as effective coordination among Government organizations, and the plan to establish a fund for future safety upgrades at the Akkuyu Nuclear Power Plant. The team also made recommendations for further actions.

The experts, assembled at Turkey's request by the IAEA, conducted an Integrated Nuclear Infrastructure Review (INIR) mission in Turkey from 4 to 14 November 2013. "The INIR Mission report will help us develop our national policy in nuclear energy, and our project company will help us in developing the requirements identified in the report," said Mr. Metin Kilci, Undersecretary of the Ministry of Energy and Natural Resources (MENR), during the exit meeting of the mission. In all, 25 organizations involved in building the national nuclear infrastructure were in the discussions with the mission team including the Ministry of Energy and Natural Resources, the Turkish Atomic Energy Authority, the Akkuyu Project Company, the national Electricity Generation Joint Stock Company EUAS, and other organizations.

Turkey decided to include nuclear power in its energy mix to meet the increasing demand for electricity and support its economic development. The country has a project to build a nuclear power plant at Akkuyu with the Russian Federation and is developing another project at Sinop with Japan. The share of nuclear power in Turkish electricity generation is aimed to reach at least 10 per cent by 2023. "Turkey is implementing the Build-Own-Operate, or BOO, approach; it is the first time in the history of nuclear power that this approach has been used," said Jong Kyun Park, Director of the IAEA Division of Nuclear Power and Team Leader for the INIR Mission. "This method is very interesting because it solves two of the biggest challenges that newcomers face: financing and experienced operators."

The mission's recommendations included completing a national policy on nuclear energy, strengthening the regulatory body, and developing a national plan for human resource development. "The government of Turkey has established effective coordination mechanisms and has involved a large number of institutions that have a role in the establishment of the infrastructure needed to support the nuclear power programme," Mr. Park added. "Still, the country has more work to do to successfully implement the programme."



This is the 12th INIR Mission organized by the IAEA. Other embarking countries have also benefited from this service, including Bangladesh, Belarus, Indonesia, Jordan, Poland, Thailand, the United Arab Emirates and Vietnam. In early 2013, South Africa hosted an INIR Mission as the first operating country considering expansion of its nuclear power programme. INIR missions are designed to help IAEA member States assess the status of their national infrastructure for the introduction of nuclear power. The mission reviews the 19 issues identified in the Agency's publication Milestones in the Introduction of a National Nuclear Power Programme (IAEA Nuclear Energy Series NG-G-3.1). An INIR mission team consists of IAEA staff and international experts. By providing a comprehensive assessment of all facets of a nuclear power programme, spanning the regulatory body, utility and all relevant Government stakeholders involved, INIR is a valuable tool for promoting transparency and openness.

### Lukoil set to drill two Black Sea wells

Upstream Online, 20.11.2013



Russian independent Lukoil is set to drill two wells on its pair of blocks in the Romanian sector of the Black Sea in 2014, its junior partner at the play has said. Romgaz development director Radu Gheorghe told Romania's Ziarul Financiar newspaper that "we plan to dig at least two wells" during the next year.

The Romanian state gas producer holds a 10% interest in the holds Est Rapsodia and Trident blocks since farming in this time last year. Lukoil operates the block on a 72% working interest, while Houston-based PanAtlantic Exploration, formerly Vanco International, holds an 18% stake.

The Moscow-headquartered explorer was awarded the two blocks by Romanian authorities in 2011, and contracted CGG for a seismic acquisition programme on the blocks that was completed late last year. The contiguous blocks cover 2014 square kilometres of the Black Sea in water depths of between 100 metres and 1000 metres.



## **Energy security in Central and Eastern Europe: Towards a common approach**

Natural Gas Europe, 18.11.2013



Energy security is of high importance to the European Union, Russia and European transit states like Slovakia or Ukraine. Central and Eastern Europe has several options to diversify imports away from Gazprom: diversification of suppliers, increase in LNG imports, shift to a more short-term contracting (all undermining Gazprom's dominant position), and extraction of 'unconventional' natural gas namely shale gas.

Drastic changes in production, transit and supply routes of natural gas to Europe open new possibilities and challenges for energy security. Recent developments will be as follow.

New European gas market model; implementation of the EU 3rd Energy package; competition between already established gas transit routes and the new supply routes. Central and Eastern European countries could benefit from these new developments only in case of deeper cooperation between CEE gas transiters under conditions of new European gas regulation. To prepare for a new era of short-term pricing Central and Eastern Europe should solve two main challenges. First, it has to define the funding mechanism of the new infrastructure. If Visegrad countries and Ukraine want to trade gas across borders and keep transporting most of the Russian gas to Europe, they need to invest into networks. But shorter contracts of liberalized market with a multitude of competitors make returns on investment quite difficult.

Second, the CEE countries have to develop spot markets to efficiently trade gas. Currently these markets are underdeveloped and can be easily manipulated, especially when the number of suppliers is limited. Visegrad and Ukrainian governments should coordinate their national energy policies and name EU's energy targets for the next decades. The CEE region supply security will be enhanced from the interconnection with the Ukrainian GTS and access of European gas traders to Ukrainian underground gas storage facilities. Establishment of the gas trading hub at the Eastern border of the EU on the basis of Ukrainian and V4 gas storage capacities under the 3rd Energy Package could further improve the energy security in the region.

To solve the gas diversification problem the CEE countries should incite national companies to coordinate large infrastructural projects (LNG terminals, interconnectors) and lobby together for EU funding. They could create a regional market along the European Gas Target Model prescribing liquid regional hubs and interconnectors and move towards harmonization of national market regulation. Better interconnection of pipelines will also benefit the unconventional gas production.



### Gazprom denies gas price reduction for Ukraine

Trend.Az, 18.11.2013



Russia's Gazprom said that the gas price for Ukraine is not expected to decrease, while gradual payments are not on the company's agenda. "We don't have any documents on gradual payments for Ukraine," Gazprom spokesman Sergei Kupriyanov said as reported by Reuters.

"The gas price for Ukraine remains the same, as stipulated in our contract," Kupriyanov added. Ukraine resumed transit of Russian gas on Friday. The change seemed to pave the way to reconciliation with Moscow, but Kupriyanov's words indicate that a final agreement could be far to come.

### Ukraine resumes Russian gas purchases

Natural Gas Europe, 19.11.2013



Ukraine has resumed purchases of Russian gas according to new reports quoting Gazprom chief Alexei Miller. Ukraine's Naftogaz was reported to have stopped gas purchases from Gazprom as of Saturday, November 9th instead relying upon on its underground stores to meet its needs through the balance of the year.

Though Ukraine said that supplies of Russian gas transited through Ukraine to Europe were unaffected, Gazprom warned that this action would deplete the amount of "technical gas" required to push the gas through pipelines to European users.



### Ukrainian daily transit flows 44 percent below the level of 2008

Natural Gas Europe, 19.11.2013



According to Naftogaz of Ukraine, the annual transit flow of Russian gas to Europe dropped from 116.9 bcm in 2008 to 81.2 bcm in 2012 (decline of 30.5 percent). Annual gas use in Ukraine is down from 66.3 bcm in 2008 to 54.8 bcm in 2012.

Average daily transit flow of Russian gas through Ukraine to Europe (including Turkey) of January 2013 was 171 mmcm or 44 percent lower than that of January 2008. Nord Stream is responsible for 51 mmcm/day while the major share of the drop is caused by the lower demand for Russian gas in Europe. From 2008 to 2013, January daily gas consumption in Ukraine dropped 24 percent.

On the average day of January 2013, Ukrainian pipeline system received nearly 250 mmcm less gas than five years earlier. This volume is roughly equal to the maximum storage withdrawal rate of all Ukrainian storage facilities. Therefore, now Naftogaz can supply domestic consumers and provide stable flows to Europe with much lower use of storage gas.

### Gazprom Neft, Novatek eye Eni's stake in Arctic Russia

Natural Gas Europe, 19.11.2013



Gazprom Neft and Novatek are interested in buying additional shares of gas producer SeverEnergia, Reuters reported on Tuesday. According to the news agency, the interest derives from the increased clout of Rosneft that bought Enel's 40% stake in holding Arctic Russia last week. The holding retains 49% of SeverEnergia's capital.

"The group, together with Novatek, is considering a possible increase of its stake in SeverEnergia through the purchase of an interest in SeverEnergia held directly or indirectly by third parties," Gazprom Neft said in the prospectus for a Eurobond offering, as reported by Reuters.



### Ukraine and Slovakia set for deal to curb need for Russian gas

Today's Zaman, 19.11.2013



Gas pipeline operators in Slovakia and Ukraine are expected to sign a deal soon that allows the European Union to ship gas through Slovakia to Ukraine, helping to reduce Kiev's dependence on Russia, the European Commission said. An agreement could signal a historic partnership between Ukraine and the European Union.

"We consider that we are very close to a deal," Commission spokeswoman Marlene Holzner told Reuters. "The content of the deal has been agreed, whereby the gas will flow from West to East through Slovakia to Ukraine. It's just a matter of signing, which should be in the next few days."

She said the deal followed more than a year of talks brokered by EU Energy Commissioner Guenther Oettinger. The gas would be shipped by physical reverse flow, through existing, unused pipelines, plus a small section of pipeline to be built next year. The European Union has a keen interest in strengthening ties with Ukraine and pulling the former Soviet republic from Russia's orbit. Ukraine's price disputes with Russia have disrupted gas supplies to both Ukraine and the European Union. The EU has been courting Ukraine with the idea it could become a gas hub, rather than just a transit site that depends on a dominant supplier, Russia.

Since late last year, technology allowing pipeline flows to be reversed has allowed Ukraine to reimport some gas back from EU nations, including Hungary and from Germany via Poland. Reverse flow through Slovakia is more helpful strategically, because volumes would be higher. But it is also politically sensitive, because of worries about the impact on Slovakia's own supply. Eustream, Slovakia's gas pipeline operator has annual transmission capacity of 90 billion cubic meters, 90 percent of which goes to the European Union. The gas is Russian. A spokesman for Eustream said late on Monday that Eustream was cooperating with its Ukrainian partners but could not disclose details until a deal was signed.



### India prepares to offer oil and gas blocks

E&P Magazine, 18.11.2013



The country has identified more than 60 blocks for a round in January 2014. India's petroleum and natural gas ministry is gearing up to launch the 10th round bidding for oil and gas blocks with revised production-sharing contract (PSC) norms in January 2014.

"DGH (Directorate General of Hydrocarbons) has carved out exploration area of about 270,000 sq km (104,248 sq miles) for which the process of inter-ministerial clearances has been initiated. After the clearance, exploration blocks are likely to be offered," said Veerappa Moily, the country's petroleum and natural gas minister.

The upstream regulator has identified 68 blocks – 25 deepwater, 20 shallow water, and 23 onshore – for the new bidding round. The ministry is preparing to launch the round during its biannual Petrotech 2014 in New Delhi, which is scheduled begin Jan. 12. Road shows for the round will be held in Houston, London, and Singapore between January and March. Having learned some lessons from the first nine rounds, the 10th round will be a perfect round, the minister said, referring to problems raised by some investors. The minister admitted that some operating companies of awarded blocks had encountered problems in getting regulatory clearances from the ministry of defense, forestry, environment, and space. BHP Billiton in October surrendered nine exploration blocks, awarded in the 8th round bidding, to DGH due to the denial of clearance from the defense ministry on the grounds that the acreage falls in the Indian Navy's strategic area.

Recent bidding rounds for exploration acreage have generated little response from global companies. The petroleum ministry found takers for only 16 of 34 blocks offered in the ninth round bidding. Moily said his ministry would now secure all required regulatory clearances for exploration acreages before putting them on the block. The sedimentary basins are largely unexplored or poorly explored and have potential for large hydrocarbon discoveries, the minister added. Only 47.3% of the 3.14 million sq km (1.2 million sq miles) sedimentary basin area in the country has been awarded for exploration. India, the world's fourth largest energy consumer following China, the US, and Russia, is estimated to have 205 Bbbl of prognosticated hydrocarbon resources. The federal petroleum and natural gas ministry is working to launch the next bidding round with revised PSC norms based on recommendations made by a committee early this year.

"We are working to create an enabling and conducive environment to promote investments by making fiscal terms that are simple to administer. This will improve the overall governance mechanism of the upstream oil and gas industry and will act as a confidence-building measure to attract the much needed risk capital and newer technologies," Moily added. The petroleum ministry has already drafted the "Uniform Licensing Policy for Award of Hydrocarbon Acreages with New Contractual System and Fiscal Model," which provides developers with operational freedom, limits roles of bureaucrats in managing gas and oil fields, and allows companies to explore both conventional and non-conventional hydrocarbon resources in a block.



In the new policy regime, the existing cost recovery-led PSC model will be replaced with a system of sharing revenue from an E&P block from the first day of production. The government will get its share of the contract's overall revenues, without offsetting any costs. This ensures that the government will get progressively higher revenue and safeguards the government's interest in case of a windfall arising from a price surge or a surprise geological find. "Thus, a major impact of the proposed model would be to provide the contractor with the incentives for keeping costs down. Pegging the costs down will enhance the contractor's profitability of operating the project," the policy note said.

The proposal eliminates several PSC features that caused inordinate delays in the previous contracts. The requirements for declaration of commerciality (DoC) and a field development plan will not be mandatory, and contractors can continue exploring during the development and production phase of discoveries. The policy also has proposed a 10-year income tax holiday for deepwater oil and gas production, a seven-year tax holiday for onshore and shallow-water blocks, and exemption from payment of royalty for shallow and deepwater blocks. In addition, the ministry is working on policy guidelines to provide operational flexibility to the existing operators of oil and gas blocks in the country.

The ministry would relax time lines prescribed in the PSC pertaining to appraisal, commerciality submission, field development plan (FDP) submission, and other issues. This operational flexibility would help explorers like Reliance Industries and Cairn India to start producing oil and gas from 62 discoveries that are entangled in contractual disputes. The ministry has recently allowed exploration in mining lease areas, even after the completion of the exploration period, in a move to maximize exploration works in the allocated blocks. The ministry is hopeful that the new PSC norms based on the revenue-sharing mechanism will accelerate growth in India's upstream oil and gas sector.

An internal note states that even after the launch of nine rounds between 1998 and 2012, only 254 blocks have been awarded. Of those, 74 were surrendered due to a lack of prospects and denial of regulatory clearances. Explorers are active in 178 blocks of the allocated blocks "Although 126 discoveries have been made in 41 of these active blocks, commercial production has commenced in only three of these blocks," the note added. The three blocks are: Reliance Industries-operated KG-D6 block (where production has fallen significantly from 62 MMscm/d in 2010 to about 14 MMscm/d now), Niko-operated CB-ONN-2000/2, and Gujarat Petroleum-operated CB-ONN-2000/1. The production of crude oil and gas dropped to 37.864 million tons and 111.4 MMscm/d, respectively, by March 31, 2013, from about 38.68 million tons and 115 MMscm/d in 2011-2012.

The demand for oil and gas, however, continues to increase in India. The country's demand for petroleum products is expected to increase by 152 million tons in 2012-2013 to 186.2 million tons by 2016-2017. Demand for natural gas could go from 286 MMscm/d to 466 MMscm/d during the same period. Moily wants to tap the country's hydrocarbon resources to minimize the supply deficit. "Only 73 Bbbl of oil and oil equivalent gas could be established through exploration, out of 205 Bbbl of prognosticated hydrocarbon resources. Thus, about 133 Bbbl of prognosticated resources remain to be unlocked through exploration," he said. "This will be possible only by speedy implementation of new exploration programs across the country."



## Tender for South Stream construction in Bulgaria to be restarted

Natural Gas Europe, 21.11.2013



The tender procedure for choosing the main contractor for the Bulgarian stretch of gas pipeline project South Stream was terminated and should be restarted any time soon, an announcement on the website of South Stream. The estimated cost of the deal is EUR 3.5 billion.

The short period for submitting applications was the main reason for restarting the procedure. Candidates had just 15 days to submit their papers, as the procedure was launched on October 31 following the visit of Gazprom's CEO Alexey Miller in Sofia and the first sod of the pipeline on Bulgarian soil.

The extremely short application period gave ground for doubts that the outcome of the tender might have been predefined. What is more, all activities for the project were summed up in just one procedure, which eliminated the possibility for candidates to compete for each individual activity. Meanwhile, South Stream Transport, the company which will build the underwater part of the pipeline crossing the Black Sea, published the findings of its environmental impact assessment (EIA). Earlier this year, local citizens expressed their concerns over the effects of pollution and noise from the construction and operation of South Stream that their community and local environment would suffer.

Pasha Dere beach, the place where the pipeline will emerge from the sea onshore, became the object of a heated debate over environmental implications of the construction process. As part of the EIA, South Stream Transport has developed an alternative construction method. Instead of burying the pipeline under the beach, four micro-tunnels will be used to install the 4 pipelines underground. The tunnels, with a diameter of 2.4 metres, will pass approximately 20 metres below the beach, without any construction or digging works taking place at the surface. The environmental assessment was approved earlier in October by Bulgaria's environmental ministry thus paving the way for construction works to kick off.



## UK considers Caspian gas as important for European energy security

Trend.Az, 12.11.2013



The United Kingdom considers Caspian gas as important for European energy security, UK Prime Minister's Trade Envoy to Azerbaijan, Charles Hendry said at a press conference on November 21. "It is important to deliver gas from the Caspian region to the European market," Hendry said.

He also stressed that the UK have fully supported the decision of selection of the Trans Adriatic Pipeline (TAP) as the route to transport gas to the Europe. Talking about the perspective of the Trans Caspian pipeline project's implementation, Hendry said that "it is something that I believe will happen eventually".

"If the delivery of Turkmen gas though Azerbaijan to the European market via the pipeline becomes real, we will obviously support this," Hendry said adding that the EU strongly supports this project. He also stressed that this issue will be the bilateral process between the government of Azerbaijan and government of Turkmenistan. "We would like to see it happen. It would be good for European energy security if that pipeline was built," Hendry added. The Trans-Caspian gas pipeline is planned to be laid from the Turkmen coast of the Caspian Sea to the Azerbaijani coast. The pipeline's length will hit about 300 kilometers.

Negotiations on the construction of the pipeline between Turkmenistan, the EU and other countries have been held since late 1990s. The negotiation process has been intensified after the European Union delivered a mandate to start negotiations on the preparation of an agreement between the EU, Azerbaijan and Turkmenistan on the Trans-Caspian project in September 2011. However, Iran and Russia later expressed their negative attitude towards the project. Tehran and Moscow believe that the construction of this pipeline may damage the ecology of the Caspian Sea.



### Gazprom doubles investments **Vladivostok LNG plant**

Natural Gas Europe, 21.11.2013



Russia's Gazprom is stepping up its efforts to maintain control over Liquefied Natural Gas, doubling investments in the Vladivostok plant to \$13.5 billion and appointing Igor Krutikov as Director General of Gazprom LNG Vladivostok. Gazprom LNG Vladivostok is a special-purpose company set up for implementing the Vladivostok LNG project.

The initial investment was \$6.7 billion. The new figure includes infrastructure such as a port, gas pipeline and power station, wrote Reuters on Thursday. Gazprom signed a Memorandum of Cooperation with Vladimir Miklushevsky, Governor of the Primorye Territory, on Wednesday.

According to a note released by Russia's top gas producer, 'the Primorye Territory Administration will provide assistance to Gazprom in obtaining necessary approvals and registering ownership rights for real estate facilities to be constructed and land parcels to be purchased.'

### **ConocoPhillips** announces first production from Jasmine field

Natural Gas Europe, 21.11.2013



ConocoPhillips announced first gas production from the Jasmine field, one of the UK's largest discoveries in the last 10 years. "The startup of Jasmine represents another important milestone for ConocoPhillips and builds upon the recent successful startup of Ekofisk South in Norway and the Christina Lake Phase E oil sands project in Canada," Matt Fox, executive vice president, said in a note.

The company expects that the project to contribute to ConocoPhillips' 3-5% expected production growth rate through 2017.

The Jasmine facility, discovered in 2006 by ConocoPhillips (36.5% and operator), Eni (33%) and BG Group (30.5%), has the gross capacity to produce 140,000 barrels of oil equivalent per day (BOED).



## Kyrgyzstan parliament resists Russia's purchase of key gas asset

Eurasianet.org, 13.11.2013



A deal that would see Kyrgyzstan's heavily indebted gas distribution company sold to Russia's state-run energy behemoth, Gazprom, appears to be in trouble. A vote in parliament was once considered a formality. But in recent days, parliament's fractious parties have put the brakes on the transaction. Even members of the ruling coalition have backed away, a major Russian paper reports.

Under a July agreement between the government and Gazprom, Bishkek agreed to sell Kyrgyzgaz, the state-run entity that controls Kyrgyzstan's gas distribution network, for a symbolic \$1.

In return, Gazprom agreed to invest approximately \$600 million into the aging gas grid and assume Kyrgyzgaz's debt, which was estimated at about \$38 million at the time. But the deal had to be ratified by parliament. On November 15, the legislature's opposition parties rejected the deal. According to a November 20 report in Russian business daily Kommersant, members of the ruling coalition are attempting to use the vote to topple Prime Minister Jantoro Satybaldiyev's government. The paper quotes Deputy Omurbek Abdrakhmanov complaining that the amount of Kyrgyzgaz's debt is unclear, meaning the deal could be unfair. A deputy from Ar-Namys, also in the ruling coalition, said Gazprom could take control of a parcel of land and sell it to China, Kommersant reported.

Corruption and aging infrastructure have left Kyrgyzstan's energy network in shambles and customers regularly in the cold. Even Bishkek, once immune to cuts, suffered last year during a fierce cold spell. Supporters of the sale say it would ensure an uninterrupted supply of gas, while bypassing corrupt local middlemen. Currently, Kyrgyzstan imports almost all its gas from Kazakhstan and Uzbekistan. Uzbekistan, in particular, has a habit of shutting off supplies to bully Bishkek. "We want to have a stable gas supply at any time of the year," Prime Minister Satybaldiyev told EurasiaNet.org in September, linking the Gazprom deal to Russian President Vladimir Putin's September 2012 promise to write off Kyrgyz debt over the course of 10 years.

The deal would also allow Gazprom to begin tapping two fields in Kyrgyzstan's south. Kyrgyzstan has limited gas reserves of its own and a lack of investment has left them largely untouched. According to a September 2011 RosBusinessConsulting report, Kyrgyzstan pumps approximately 30 million cubic meters of gas, but consumes close to 750 million cubic meters a year. But critics argue that Kyrgyzstan is trading dependency on its neighbors for vassalage under Russia. The sale of such a key asset to a foreign government was bound to raise questions about sovereignty – and with populists dominating parliament, was bound to run into trouble.



Kyrgyzstan is already moving headlong toward joining the Moscow-led Customs Union, despite concerns the body is designed to bolster Moscow at the expense of members' trade options. Akmatbek Keldibekov, of parliament's opposition Ata-Jurt faction, said he would rather see Kyrgyzstanis "burn dung" than sell such a strategic asset. (Keldibekov was arrested today on corruption charges, seemingly unrelated to the gas conflict.) The Kyrgyzgaz debate comes only weeks after lawmakers – led by Ata- Meken faction head Omurbek Tekebayev, a member of the ruling coalition – rejected a government-brokered deal to restructure the only major industrial asset in Kyrgyzstan, the Canadian-owned Kumtor gold mine.

Tekebayev is now leading a movement to expropriate the mine, which is worth about a tenth of GDP, though few believe Kyrgyzstan has the technological know-how to operate Kumtor. Many observers in Bishkek believe Tekebayev is only brandishing his populist credentials, perhaps with an eye on the 2015 parliamentary elections, by rejecting anything put forward by the embattled prime minister. (Others believe he is trying to push Satybaldiyev's government to drop an investigation into his alleged role leading a band of looters during political violence in 2010.) Moscow must be growing tired of negotiating with Bishkek for Kyrgyzgaz. Kyrgyzstan's parliament ratified a deal in 2009 to transfer about 75 percent of the company to Gazprom. That became moot after the toppling in 2010 of President Kurmanbek Bakiyev in a bloody coup.

The current 100-percent deal was outlined last December. On November 15, during a visit to Bishkek, the chairman of the Russian State Duma's Committee for CIS Integration, Leonid Slutsky, urged his Kyrgyz counterparts to ratify the deal. He said Gazprom did not have "commercial" interests in Kyrgyzstan, but merely wanted to help. Later, speaking about Kyrgyzstan's proposed membership in the Customs Union, he reportedly warned Bishkek to stop begging for cash handouts and to be more modest.

### Announcements & Reports

#### ► Energy Policy Highlights – 2013

Source : International Energy Agency

Weblink : http://www.iea.org/publications/freepublications/publication/Energy\_Policy\_Highlights\_2013.pdf

#### ► Secure and Efficient Electricity Supply

**Source**: International Energy Agency

Weblink : http://www.iea.org/publications/freepublications/publication/SECUREANDEFFICIENTELECTRICITYSUPPLY.pdf

#### ► Energy Technology Initiatives – 2013

Source : International Energy Agency

**Weblink** : http://www.iea.org/publications/freepublications/publication/EnergyTechnologyInitiatives\_2013.pdf



### **Upcoming Events**

#### ► MENA Shale 2013 – Unconventional Gas Strategy for the New Era

**Date** : 10 – 11 December 2013

Place : Abu Dhabi – UAE

Website : http://www.europetro.com/en/menashale2013

#### ▶ 4th Basra Oil and Gas International Conference & Exhibition

**Date** : 5 – 8 December 2013

Place : Basra – Iraq

Website : http://www.basraoilgas.com/

#### ► European Unconventional Gas Summit 2014

**Date** : 28 – 30 January 2014

Place: Vienna – Austria

Website : http://www.theenergyexchange.co.uk/event/european-unconventional-gas-summit-2014#tab-country1

#### ► CIPPE 2014

Date : 19 – 21 March 2014 Place : Beijing – China

Website : http://www.cippe.com.cn/2014/en/

#### ▶ Unconventional Gas Aberdeen 2014

Date : 25 – 26 March 2014 Place : Aberdeen – UK

Website : http://www.unconventionalgasaberdeen.com/

#### ▶ 8th Atyrau Regional Petroleum Technology Conference

Date : 1 – 2 April 2014
Place : Atyrau – Kazakhstan
Website : http://www.oiltech-atyrau.com/

#### **► TUROGE 2014**

Date : 9 – 10 April 2014
Place : Ankara – Turkey
Website : http://www.turoge.com/