

## Turkey aims to reduce electricity leakage rate

AA Energy Terminal, 02.06.2016



Turkey has decreased the rate of electricity leakage from 20 to 14 percent and aimed to reduce this rate to single digit levels, said Albayrak Turkey's energy minister.

During discussion on legislative proposal that calls for change in electricity market, Albayrak informed parliament about the article of seeking change in electricity leakage rate. "This article aims to change to fill the gap about jurisdiction and to stop the deadlock of judicial system," said Albayrak. Minister also mentioned the regulations in the proposal seeks fast integration of domestic coal fields to the system and aims to decrease Turkey's energy imports.

"We put the developments and investment about renewable sources on our agenda. We plan to technology transfer and to establish research and development activities in Turkey," he said. Speaking about nuclear power encounterers, Albayrak told most of developed countries use nuclear energy.

"How Turkey will generate or provide 265 billion kWh electricity that it needs as of today? Nuclear power is important both for diversification of energy sources and for development of other practices of this technology. We aim to choose the best location for the construction of these plants with this proposal." Albayrak also pointed to the importance of domestic energy sources.

"As of 2015 Turkey's energy import reached \$38 billion and this amount will increase in the upcoming years. If we benefit more domestic energy resources, this will be reduce its energy dependence and this will provide 25 thousand employment in mining and geothermal sector," he added.

# Russia's gas flow to Turkey up to 'pre-Feb. levels

AA Energy Terminal, 01.06.2016



Natural gas volumes from Russia to Turkey have increased to pre February levels, Deputy Chairman of the Management Committee of Gazprom said on Tuesday. Russia reduced daily gas supplies to Turkey by around 50 percent in Feb. 10, 2016.

“Gazprom’s natural gas deliveries to Turkey through (BOTAS) and private companies returned to their previous levels,” Alexander Medvedev, deputy chairman of the Management Committee of Gazprom said. Gas flow from Russia to Turkey via the western line had decreased due to the dispute over price negotiations in February, 2016.

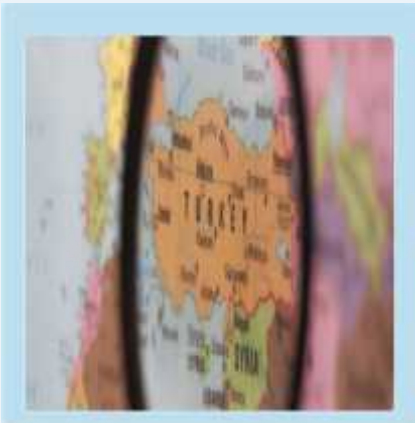
Gazprom had applied a 10.25 percent discount on gas prices to six Turkish private companies retrospectively for the first three months of 2016. However, the discount was cancelled as from April 1, 2016.

Medvedev explained that an out of court settlement would be more beneficial instead of the case in which Turkey took Russia to the arbitration court to obtain a decrease in gas prices from Russia’s Gazprom.

“To me, it is better to solve this issue mutually instead of the arbitration court. This is a better solution both for us and BOTAS. Additionally, BOTAS and private companies are currently paying the same price for gas,” he said. Bosphorus Gaz, Enerco Enerji, Bati Hatti, Kibar Enerji, Avrasya Gaz and Shell Enerji are the six Turkish private companies importing 10 billion cubic meters of natural gas per year from Gazprom.

# Turkish companies explore gas-for-power trading options

ICIS, 27.05.2016



Interest is growing in Turkish gas-for-power swaps as companies are looking to offload gas volumes to avoid incurring take-or-pay penalties. A total of four gas-for-power swaps were reported on the screens of VOLT.

In the first of the four swaps, a counterparty was offering 10MW of Q3 '16 Baseload at TL 147.00/MWh, while another company was looking to buy 3,330 kscm of gas over the same period at \$170.00/kscm (\$4.73/MMBTu, TL515.123/kscm). In the second proposal, a shipper was bidding for 3,330,000 scm for H2 '16 at \$177.5/kscm, in lieu for 10MW of H2 '16 Baseload offered at TL146.00/MWh.

There were later reports that at least another company was also looking to buy 10MW of power for H2 '16 Baseload at TL135.00/MWh, while selling 3,330,000 scm of gas at \$170.00/kscm. Finally, some counterparties were looking to offer 10MW of power at TL146.00/MWh while looking to buy gas at \$173.80/kscm.

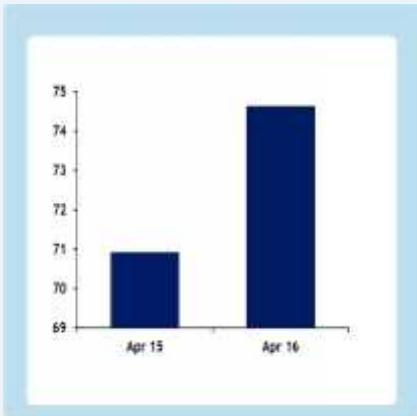
Tuba Acarturk, head of over-the-counter gas and power trading at VOLT, said companies were increasingly looking at swap deals because there was a pressing need to offload gas volumes. This was because Turkey's storage capacity is limited and therefore there is no opportunity for companies to store gas in the summer for withdrawal at a later day, she said.

Furthermore, she added, demand was likely to drop in the summer, and it might get difficult to find trading partners. This would mean that with falling demand, gas shippers would be left with heavy take-or-pay obligations. If they fail to offtake a given amount of gas, they would be slapped with penalties.

As a result, gas and power companies were now exploring the possibility of swapping one commodity for the other. A source active on the market said the first ever gas-for-power swap in Turkey was concluded in April. The volumes were 600,000scm for gas and 5MW for power. No further details were released.

# Turkey's Enerjisa starts gas-fired power plant

Argus, 02.06.2016



Turkish utility Enerjisa has started operations at the 607MW Bandirma 2 gas-fired combined-cycle plant. The gas turbine has been on line since 19 April and its steam turbines started operating on 13 May. The start-up boosted Enerjisa's gas-fired capacity to 1.6GW.

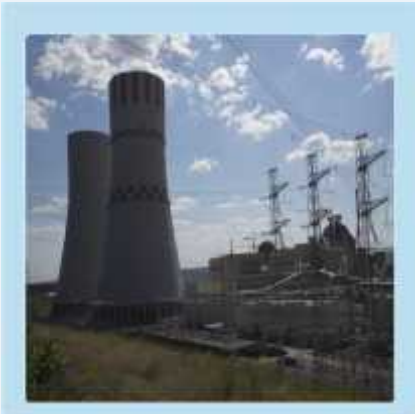
The firm said its 82MW Yamanli hydropower plant became fully operational on 7 April. The first unit started up on 31 January. Enerjisa has 450MW of coal-fired, 1.3GW of hydropower and 211MW of wind power generation capacity. The 62MW Dogancay hydropower facility is due on line in 2017, Enerjisa said.

The plant was previously expected to start output in the second quarter of this year. The 170MW Incir plant is expected to start up in the second quarter of next year, with the 410MW Pervari facility following in the first quarter of 2018 and the 280MW Alpaslan plant in 2018. All three are hydropower plants. Turkey's total installed capacity was 74.6GW at the end of April, of which 21.5GW was gas-fired and 26.2GW was hydropower capacity. The total was 3.7GW higher than a year earlier.

Average hourly power demand in January-April was just 0.9GWh higher on the year at 30.4GWh, meaning that Enerjisa's new capacity further pressured an oversupplied electricity market. The oversupply has weighed on the third and fourth-quarter contracts, which closed at 149 lira/MWh (€45/MWh) and TL142.63/MWh yesterday, respectively, down by TL11/MWh and TL16.12/MWh compared with a year earlier.

# Turkish companies to build power plants in Iran for \$3 billion

Hurriyet Daily News, 31.05.2016



Iran will soon sign a \$3 billion deal with Turkish companies to build power plants with an installed power of 5,000 MW, Iran's deputy energy minister, Husheng Felahetiyan, has said. Most international sanctions on Tehran were lifted in January in exchange for curbs on Iran's nuclear program under a deal reached with world powers in 2015.

"We will sign an investment agreement with Turkish private companies for the construction of power plants with the capacity of 5,000 MW. The size of this deal is \$3 billion," he said. "We have agreements with Turks but they have not been finalized and talks are still continuing," he added.

He also invited Turkish companies to invest in gas-fired power and wind power in Iran. Felahetiyan also noted that power trade between Iran and Turkey would increase, adding that Iran now sells around 350 MW of electricity to Turkey.

In line with a deal which was recently signed between Iranian authorities and Turkish Energy Minister Berat Albayrak, this amount was planned to be increased to 1,200 MW in the next 1.5 years and 3,000 MW in the upcoming period. Felahetiyan said that Iran exported some 10 billion kWh or power to its neighboring countries.

Upon a question about whether there would be any cut in Iran gas which is imported by Turkey, he said the existing deals were still effective. "On the basis of these deals, talks can be made for the upcoming period," he added at the conference, to which many foreign energy players attended and showed huge interest.

At the 11th International Energy Conference in Tehran, a delegation from the World Energy Council Turkish National Committee (DEK-TMK) attended from Turkey. DEL-TMK President Murat Mercan invited Iranian sector representatives to attend the World Energy Congress, which will be held in Istanbul in October. He noted that a total of 220 sector players from 75 countries have already informed about their attendance at the triennial event, adding that 37 of them were ministers.

# Israel favors gas exports through Turkey

Daily Sabah, 02.06.2016



Israeli minister close to Prime Minister Netanyahu said that nearly all outstanding issues for a reconciliation agreement with Turkey had been finalized by both sides. “I’d say we’ve successfully finished dealing with 90 percent of the topics,” Energy Minister Yuval Steinitz said in a radio interview.

Steinitz’s remarks were the latest in a long series of iterations from both sides implying a deal to end the rift between the former allies was imminent. Turkey was a key regional backer of Israel until the two countries cut ties in 2010 over the deadly storming by Israeli commandos of a Turkish aid ship bound for Gaza, which left 10 Turkish activists dead.

Israel apologised to Turkey in 2013, in what many thought would trigger a warming in ties, but tensions soared again the following year when Israel launched a military offensive in Gaza. After years of bitter accusations and inflammatory rhetoric, the two sides held secret talks in December to seek a rapprochement, with another round taking place in February in Geneva. Pressed by 103FM radio to say when he thought a deal might be completed, Steinitz said he hoped “in the coming weeks.”

“There is a huge interest on both sides -- a strategic interest, an energy-related interest and an economic one,” he said. The minister added that the passing of a long-debated agreement in Israel aimed at enabling the export of some of the country’s natural gas to Turkey and Europe would help speed up a deal.

The reconciliation deal between Turkey and Israel is not yet finalized; however, the two sides have made significant progress on details to finalize the agreement, Turkish officials said Wednesday. Turkish officials told Daily Sabah that Israel had met two of the three conditions Turkey has set for normalizing relations between the countries, which were partially frozen five years ago, but the two sides are yet to agree on the final condition: the ending of the blockade on Gaza.

# Turkey ups gas purchase from Azerbaijan, decreases from Russia

Azernews, 31.05.2016



Turkey has increased volume of natural gas it buys from Azerbaijan while reducing gas purchases from Russia. Azerbaijan exported 1.71 billion cubic meters of gas to Turkey in the first quarter of 2016 as compared to 1.69 billion cubic meters exported in January to March 2015, said the report of the Turkish Energy Market Regulatory Authority (EPDK).

In the meantime, Russia's exports to Turkey amounted to 6.35 bcm of gas during the first quarter of 2016, compared to 7.5 bcm exported in the first three months of 2015, told the report. EPDK noted in its report that Azerbaijan supplied 6.17 bcm of gas to Turkey in 2015 versus 6.07 bcm in 2014.

The country's share in Turkey's total gas imports was 13 percent in the first three months of 2016. Azerbaijan is the third largest supplier of natural gas to Turkey after Russia and Iran. Meanwhile, in 2015, Russia supplied to Turkey 26.78 billion cubic meters of natural gas compared to almost 27 billion cubic meters of gas export in 2014. The share of Russian gas in total imports of Turkey totaled 48.2 percent in January to March of 2016.

Overall, Turkey imported 13.17 billion cubic meters of gas in Q1 2016, according to the report. 10.24 billion cubic meters of this volume were imported via pipelines while 2.93 billion cubic meters accounted for the liquefied natural gas (LNG) imports. Nigeria and Algeria are also suppliers of natural gas to Turkey.

Turkey imports gas from Azerbaijan via the South Caucasus Pipeline (Baku-Tbilisi-Erzurum) while gas deliveries from Russia are carried out via Blue Stream and Trans-Balkan pipeline. Blue Stream - the gas pipeline with capacity of 16 billion cubic meters per year - runs under the Black Sea and ensures direct delivery of gas from Russia to Turkish consumers.

In addition, Turkey has a contract for the annual purchase of 6.6 billion cubic meters of gas from Azerbaijan's offshore Shah Deniz gas and condensate field. Recently, Turkey has been trying to diversify its gas supply routes since its relations with Russia got tense after Russian fighter jet along was shut down in the Turkish-Syrian border in November, 2015. The construction of the Turkish Stream has also been suspended as a result of the mentioned event.

Moreover, Turkey is implementing program to increase share of renewable, especially solar power in electricity production in the coming decade. The country aims to become a gas hub in the region. Additionally, Trans-Anatolian Pipeline (TANAP) - the Turkish leg of the Southern Gas Corridor which envisages transfer of the Caspian gas to Europe- will contribute enhancing Turkey's energy security and increase its role as transit country.

# Turkey's foreign trade deficit continues to fall amid oil plunge

Hürriyet Daily News, 31.05.2016



Turkey's foreign trade deficit has fallen sharply in April 2016 compared to the same period last year, mainly due to lower energy prices, the Turkish Statistical Institute (TÜ K) said in a report issued.

The foreign trade deficit was down by 16.3 percent compared with the same month last year, falling to \$4.2 billion, according to the Turkish Statistical Institute's report. Exports for April fell by 10.2 percent from April last year to \$11.99 billion, while imports fell by 11.9 percent to \$16.2 billion. Turkey's foreign trade gap was \$16.2 billion over the first four months of this year.

Energy imports, which make up the country's largest import item, declined by 33.8 percent in April to around \$2 billion compared to the same month of 2015. They saw a 39 percent of shrinkage in the first four months of the year from the same period of 2015, falling to \$8.5 billion amid low energy prices.

However, analysts have warned about rebounding energy prices, which will lessen the positive contribution of the energy slump in lowering Turkey's foreign trade gap. The country exported goods worth \$1.2 billion to Germany, its largest market, in April. Turkish exports to the U.K. amounted to \$838 million, while exports to Italy were worth \$583 million.

While the share of the EU in Turkey's exports was 39.5 percent in April 2015, this rate rose to 47.3 percent in April this year, according to TÜ K data. The country's exports to the EU market rose by 7.5 percent to \$5.7 billion in April from the same month of 2015. China (\$1.83 billion), Germany (\$1.81 billion) and Russia (\$1.15 billion) were the main sources of imports in April.



## Iran and Turkey court the KRG for oil

Oilprice, 30.05.2016



Two years ago, while Kurdish oil was flowing to Turkey's port of Ceyhan, Iran and the Kurdistan Regional Government (KRG) signed a natural gas-for-oil agreement that included the construction of two pipelines between the territories. According to the agreement, the regional government would receive between 3 million and 4 million liters of refined oil fuel and natural gas in return for crude oil.

The first pipeline would carry oil from Kurdish territory to Iran and Iran would refine and then return the oil. Moreover, Iran would send natural gas to KRG cities such as Sulaymaniyah and Erbil.

At the time of the agreement, ISIS was attacking Iraqi territory and threatening Iraqi oil resources; Iran was under international sanctions, and Bagdad was opposing the export of stored Kurdish oil from Turkey's port of Ceyhan, claiming that the KRG was violating Iraq's constitution.

Shortly after the ISIS invasion of Mosul, Iraq's second biggest city, it was announced that a tanker had delivered a cargo of disputed Kurdish crude oil from Ceyhan to Israel, despite threats by Bagdad to take legal actions against buyers and Turkey. The oil money paid to Turkey's Halkbank remained blocked until Erbil and Bagdad had reached an agreement over the export of KRG oil.

Iran considered the 2014 ISIS attack, which brought the jihadists close to the KRG's capital, a great opportunity. Iran used the ISIS threat to supply weapons and ammunition to Iraqi Kurdish forces, which meant that the KRG continued to meet with the Iranian leadership and negotiate to buy Iranian gas and have Kurdish oil refined across the border.

Since 2012 KRG has sent its oil to Turkey's port by trucks and extended the Kirkuk-Ceyhan oil pipeline. However, due to internal conflicts in Turkey between Turkey's military forces and the PKK terrorist group, the Kirkuk-Ceyhan pipeline was halted several times.

Moreover, the KRG's leader Barzani faced a challenge from acting PKK leader, living in the KRG area, Cemil Bayik. Bayik remains hostile to Ankara-Erbil energy relations and favors an alignment with Tehran. When the KRG was having financial problems due to the halting of the Kirkuk-Ceyhan pipeline and Bagdad's refusal to send KRG's share of oil income, the Iranian diplomat in Kurdistan offered the Kurdish government access to the Persian Gulf for export of its crude oil. In addition to that, Iran has agreed to grant cash loans to the KRG in return for stakes in the Kurdish oil.

In February the KRG accepted a deal from Bagdad that would have halted the Kurds unilateral oil exports in exchange for Bagdad paying its public employee salaries. However, the KRG's leader, Barzani, called for foreign powers to provide financial aid for the Peshmerga, the Kurdish military forces, in their fight against ISIS. First, Turkey sent \$200 million to help Kurds who were hit hard by the oil pipeline export stoppage.



Then, the United States decided to provide \$415 million in aid to Iraqi Kurdish Forces in April 2016. Both Turkey and the United States aimed to cut the close relationship with the KRG and Iran by strengthening the KRG's economy.

Nevertheless, a Kurdish delegation has visited Tehran seeking a deal to export its oil and gas to Iran on April 5th, 2016. The KRG representative expressed that Iran has a willingness to extend its gas pipeline to export and import gas from the Kurdistan region. If a pipeline between the KRG and Iran is finalized, the new pipeline would bring the KRG one step closer to the financial independence it seeks, but it would cause problems between Turkey, Israel and the KRG.

One pipeline under consideration would originate near the Taq Taq field and cross the Iranian border, north of Lake Dukan, while the second pipeline under consideration would run from the Khor Mor field to Khanagin, which is also close to the Iranian border. The Taq Taq field is operated by UK-based Genel Energy, which has Turkish share-holders, while the Khor Mor gas field is operated by Dana Gas.

Moreover, six blocks belong to Turkish state company and several blocks to other Turkish private energy companies in the Kurdistan region. If an oil pipeline and a natural gas pipeline were to be finalized between the KRG and Iran, Turkey would lose its control over Kurdish oil production and its natural gas export option.

In May 2016, the KRG and Iran delegations met again and expressed that they are close to signing an agreement to start exporting oil from Kurdistan region to Iran. The difference between the KRG-Iran energy relations and the KRG-Turkey relations is that Iran is seeking federal approval for a possible route from Kurdistan to Iran.

An Iranian official in Sulaymaniyah stated that "a pipeline is still at the discussion stage", as Baghdad had not given the green light to approve the project. Therefore, Iran aims to establish energy relations with the KRG whereas Turkey does not.

On the other side, Iraq will begin importing Iranian natural gas starting in late June 2016. If Iran and the KRG reach an agreement to build oil and natural gas pipelines, the new geopolitical development will be a challenge for Turkey and Israel.

Turkey may lose its domination over Kurdish energy sector, and Israel will have to seek new oil resources instead of importing Kurdish oil from the Ceyhan port. From the KRG's point of view, in case of any conflict with Turkey, whether military or political, a second export route would mean that Kurdistan was no longer dependent on Turkey for its oil exports.

# Southern Gas Corridor to provide gas for South-East Europe and 30,000 new jobs

Trend News Agency, 02.06.2016



A complex gas pipeline infrastructure will be created in Europe and a number of countries will be provided with Azerbaijani gas following the implementation of the Southern Gas Corridor project, said Natig Aliyev, Azerbaijani energy minister.

The minister added that the implementation of the project envisages the creation of the technically complex infrastructure of gas pipelines in South-East Europe. “The Ionian-Adriatic Pipeline (IAP), through which the Azerbaijani gas will be supplied to Montenegro, Croatia and Bosnia and Herzegovina, is planned to be constructed,” the minister said.

“The Hungary-Romania Gas Interconnector with a capacity of up to six billion cubic meters (bcm) of gas, which will be also connected to the Southern Gas Corridor, is also planned to be built.” “The Slovak-Hungarian Gas Interconnector with a capacity of five bcm a year has been already built,” the minister said. “In general, over 30,000 jobs will be created after the implementation of the project.”

According to the minister, it’s a positive sign that the Balkan states are not staying away from Azerbaijani energy projects. “It is obvious that all Balkan countries are supporting us and are interested in our projects,” the minister said. “Thus, in my report, I did my best to emphasize the points of their interest.”

The Southern Gas Corridor is one of the priority energy projects for the EU. It envisages the transportation of 10 billion cubic meters of Azerbaijani gas from the Caspian Sea region to the European countries through Georgia and Turkey. At the initial stage, the gas to be produced as part of the Stage 2 of development of Azerbaijan’s Shah Deniz field is considered as the main source for the Southern Gas Corridor projects. Other sources can also connect to this project at a later stage.

As part of the Stage 2 of the Shah Deniz development, the gas will be exported to Turkey and European markets by expanding the South Caucasus Pipeline and the construction of Trans-Anatolian Natural Gas Pipeline and Trans-Adriatic Pipeline.

# The biggest obstacle to Iran's energy makeover is itself

Stratfor, 28.05.2016



Throughout the first half of the year, Iran's national oil company has been signing deals with international peers to secure its place in Iranian energy projects.

The agreements, the most recent of which was sealed with OMV Group, come at a critical time for Iran's hydrocarbons sector. Over the past decade, the Iranian oil industry languished as Tehran largely shunned outside assistance. But now, in an effort to capitalize on the country's recent nuclear deal with the West and the lifting of sanctions, President Hassan Rouhani is trying to reinvigorate the sector by pumping in foreign cash and expertise.

The president's envisioned reforms will fundamentally change the structure of the Iranian energy industry. But they could also redefine the role and scope of the National Iranian Oil Co.'s activities — an outcome certain stakeholders in the company and the oil sector more broadly are determined to avoid.

Despite the consensus among Iranian elites that some foreign investment and technology is needed to get the country's hydrocarbons industry back on track, they agree on little else. And as the disputes among Iranian policymakers persist, the appeal and efficacy of Rouhani's push for change will fade.

Revitalizing Iran's oil and natural gas sector has been a priority for Rouhani since he took office in 2013. The industry's deterioration under the weight of sanctions and the guidance of Rouhani's predecessor, Mahmoud Ahmadinejad, made it clear to many Iranian leaders that the country could not reach its production potential without help. Despite widely held political concerns about working with foreign partners, Rouhani has taken steps to make Iran's oil contracts more enticing to outsiders.

To that end, Iran discussed and unveiled some of the terms of its new Iran Petroleum Contract (IPC) model at a summit in Tehran last November. Though the details of the final version are still being worked out, the initial draft was clearly designed to address the biggest criticisms of Iran's former framework: the buyback contract.

The most important difference between the IPC and the buyback model is that the former allows international oil companies to play a much broader role in joint ventures with Iranian firms. Foreign companies have not been able to participate in the production stage of any Iranian oil field since the Iranian Revolution began in 1979. But under the terms of the IPC, international firms can serve as the operators of a block or field during the exploration phase.



If oil is discovered and its extraction is deemed economical, then the foreign company and National Iranian Oil Co. (and potentially a third party) will establish a joint operating company and a joint venture, which acts as a contractor, to continue operating, developing and producing the field. Committees comprising members of each company then make strategic decisions for both joint entities.

Because Iran wants international companies — and their technology — to be present at every stage of its oil and natural gas projects, it has lengthened the time frame of the contracts outlining their responsibilities as well.

The IPC framework makes room for contracts that can last up to 20 years, with the possibility of adding an extra five years if enhanced oil recovery techniques are needed. This is intended to draw foreign firms into managing declining fields, which often require more technologically complex methods to maintain high output levels as they age. Tehran also hopes that longer and more frequent partnerships with international companies will give its own firms a chance to access the best technology and expertise available.

Of course, there are a number of ambiguities about these joint ventures that the IPC has yet to address. For example, though the contract clearly states that international oil companies must assume all of their Iranian partners' risk in the exploration phase, it is not obvious whether they must do the same for partners from other countries.

Moreover, the ownership shares of the various joint ventures, operating companies and committees involved in each partnership have not been defined, nor has a formula for figuring out if a field is economical. (Iran has said, however, that the latter will be included in the final draft of the IPC.)

Meanwhile, the Iranian government has also tried to solve many problems of the buyback model that endangered foreign companies' profits. Under the old contract, international firms received a fixed rate of return, usually between 15 and 17 percent, based on the sum they initially agreed to invest.

The IPC replaces this rate with a much more robust mechanism that calculates revenues by taking into account the price of oil, the volumes produced and the complexity of the field. In so doing, it not only enables companies to benefit from higher oil prices but also incentivizes them to extract as much oil as they can, potentially exceeding production goals.

As an added bonus, the new contract model removes the rigid capital expenditure requirements of its predecessor and introduces a comprehensive cost recovery mechanism. Instead of having to eat any costs that exceed their initial budget estimates, international oil companies will now be able to get their work programs and budgets approved annually by a joint management committee.

Furthermore, the cost recovery mechanism will allow them to recoup costs equal to as much as 50 percent of the project's annual revenues, carrying forward any outstanding costs into the following year. These changes will give companies the flexibility to make adjustments more easily in their projects' later stages, encouraging field redevelopment and the use of enhanced oil recovery techniques in the process.



Like the joint venture terms, these areas of the IPC framework are still somewhat vague, and many of the finer details that are crucial for determining payment and financial feasibility remain unclear. Though some of them may eventually be set in stone in the IPC's final draft, a number of them will probably be left unresolved, giving foreign oil companies room to compete with one another in the event that Iran tries to strike up a bidding war. That said, the lack of clarity could also backfire by making potential investors at home and abroad uneasy.

As Iran tries to bring its petroleum contract more in line with industry standards, there are still a number of obstacles. For one, Tehran is bound by limits of the Iranian Constitution, which explicitly says all of the country's energy reserves belong to the state. This rule makes it impossible for international companies to own Iranian oil — a problem for firms whose reserves are vital to securing shareholders' support and financing from banks and other lending institutions.

The constitution's stipulations also rule out the use of several common contract terms, including those found in production-sharing contracts, which often give companies a share of output and reserves. Tehran is attempting to get around this roadblock, however, by including mechanisms that mirror the mechanics of production-sharing contracts while still adhering to Iranian law.

The IPC's volume-based compensation structure, for example, is similar to the idea of paying companies with a share of their output. Iran has also promised to enter long-term supply contracts for the duration of the IPCs, arguing that they could be disclosed as assets to foreign firms' shareholders in a way that is comparable to booking reserves. (It remains to be seen how successful Tehran's argument will be, though.)

Either way, the new IPC framework could prove to be an attractive contract scheme, depending on the final details. Iran boasts many below-ground opportunities and an abundance of oil and natural gas that is fairly cheap to produce — two factors that will pull investors to the country. But generous terms and vast potential can do only so much to make up for the substantial political risk that investors would take on by entering Iran.

Consider the new 25-year contract the IPC offers. Though ideal in many ways, such a time frame would work out well for international companies only if Iran's stance toward the West does not sour substantially over the next quarter of a century. Yet in that time, Iran will likely experience several political evolutions and at least one new generation of supreme leaders. Coupled with the country's tumultuous history with the West, it is easy to imagine tension between the two rising once again.

Even if it does not, the receding effects of Tehran's protracted standoff with the international community will continue to make doing business with Iran difficult. Foreign companies will have to go to great lengths to ensure they do not partner with groups or individuals still under sanctions.

In the meantime, 25 years is long enough to allow Iran's heavily politicized legal system, which often acts arbitrarily, to change the regulations governing Iran's oil industry. So while Tehran recognizes the importance of bringing in foreign know-how and funding to its energy sector, it may have a hard time convincing companies that the gains of operating in Iran outweigh the risks. In turn, international firms' hesitation will likely become a drag on Iran's production growth over the next five years or so. Meanwhile, Iranian leaders continue to haggle over what the final IPC will look like.



Despite the progress that has been made on some of the larger issues, the details have become a battleground for Iran's varied political groups, all of which will use the debate to further their own interests as best they can.

Chief among these groups are Iranian construction, engineering, equipment and contracting companies, many of which fear that their contracts and sales will be reduced by the new model. Iranian firms are not nearly as technologically proficient as their foreign counterparts, and they will struggle to stay competitive as they bid against international oil companies — especially since the primary contracts under consideration are for complex projects, including heavy oil, deep-water and mature oil fields.

Having unveiled only 52 fields eligible for development under the IPC, Tehran could be setting aside other plays for domestic companies that are better tailored to their capabilities. It is also possible that Iran will create its list of approved Iranian partner firms with an eye toward ensuring certain companies have a chance to develop more advanced skills as they work with international corporations. But because it is unclear which companies will make the cut, the issue continues to be a source of heated debate.

Several questions about the IPC's constitutionality and its tariffs and customs requirements remain unanswered, too. Still, the ambiguity has given Oil Minister Bijan Namdar Zangeneh room to shift his rhetoric over the past two months, referring to the IPC as a buyback contract to alleviate the concerns of those who worry its successor introduces too much change for comfort.

After all, the models are both service contracts at their core; they simply have very different structures. And regardless of terminology, it is unlikely that the IPC's initial draft would have been unveiled without at least the tacit support of Iran's supreme leader. Yet even within the National Iranian Oil Co. and Oil Ministry there has been some pushback against the new contract. Both have their doubts about whether the state-owned company will in fact benefit from the IPC format and receive the technology it so desires.

They question why a joint-venture contractor should operate projects, as opposed to the state company, and whether a 20-year time frame is too long. Moreover, uncertainties regarding remuneration and financial viability, among other areas, continue to make the two organizations uneasy.

All of these concerns aside, National Iranian Oil Co. Managing Director Roknoddin Javadi has said he hopes to have an IPC draft completed by July so that Iran can open tenders on its blocks. (International companies interested in investing in Iran will probably begin the prequalification process even sooner.) Whether his goal will be realized is another matter.

The IPC's formal debut has been delayed indefinitely, though the contention surrounding it is centered less on the ideological question of whether foreign participants should be allowed in and more on domestic players' attempts to shape the contract's finer points to their benefit. Ultimately, this will probably mean that while some of the IPC's more attractive terms may get watered down, the model likely will not be blocked completely. Either way, Iran's energy sector appears to be on the verge of a dramatic change — but only if the country can get past its risky politics and difficult business environment.

## Israel in dilemma over LNG imports

Natural Gas Europe, 30.05.2016



Israel Electric Corp. (IEC) has initiated a move to simplify LNG import procedures and lower the price, The Marker, a business daily reported. IEC is the only entity importing LNG, most of which it uses in its power plants, the remainder being sold on the market.

Israel has no onshore regasification facility. In 2011 Israel invested \$150mn in an offshore buoy that can be connected to a floating storage and regasification unit (FSRU). However, each time the FSRU is emptied it has to leave Israeli waters and sail to Cyprus in order to be resupplied with LNG from an awaiting LNG cargo ship.

That takes at least three days, during which period any major mishap in the natural gas systems has the potential to cause lengthy power outages. This procedure is also wasteful since for most of the time the FSRU is idle. The same is true of the LNG ship anchored in Cypriot waters. Those two vessels are there only for emergency situation in the Israeli gas market.

However, now IEC is proposing that the FSRU would anchor right by the buoy and the LNG cargo ship would sail into Israel's territorial water and resupply the regasification unit there. In this scenario LNG supply to the pipe network would be continuous and more efficient.

Such an arrangement would also make the import of LNG into the Israeli market more stable and affordable and therefore will set a competition to the Tamar and Leviathan's main partners, Delek Group of Israel and the American company Noble Energy. Currently, Israeli customers are able to purchase LNG more cheaply than local production.

This current arrangement was needed because the Israeli gas authority was reluctant to allow unloading of gas on the Israeli shore and the technology of unloading off shore was still in its infancy.

Now after three years in operation and positive experience IEC officials are confident that this technique, despite its limitations is safe enough. One of its more obvious limitation are the difficulties in operating the FRSU and the buoy during storms. However, storms are uncommon in the eastern Mediterranean.

The new proposal emerged in parallel to the idea of building a second buoy in order to increase energy security and also to serve the Israeli market since LNG prices are expected to stay low for long.

Israel has begun negotiating with Excelerate Energy for the leasing of a second FRSU with an annual price tag of \$65mn - \$70mn. If Israeli officials will decide to convert the first buoy into an LNG regasification terminal then building another one might prove superfluous to the needs.



However, bringing LNG ships into Israeli territorial waters, in close proximity to other gas facilities as well as to the shore would expose them to military and terrorist dangers. Therefore any change in the import procedures would have to be approved by the energy and shipping companies and may require an increase in the ships' insurance premium.

In the coming weeks Israel will have to decide which option to carry out: either converting the first buoy into a permanent off shore regasification facility or building a second buoy and leasing a second FSRU.

## Saudi Arabia's gesture for OPEC unity meets Iran resistance

Bloomberg, 02.06.2016



Saudi Arabia faced resistance from Iran to proposals to restore a production target scrapped at OPEC's last meeting in December as persistent divisions within the producer group undermined efforts to build unity.

Still, OPEC's arch rivals adopted a more conciliatory tone in Vienna than in the past, with Riyadh promising not to flood the market and Tehran saying it was ready to listen to its counterpart. The diplomatic maneuvering is an attempt to mend divisions that had grown so wide many dubbed OPEC as good as dead and preserve the rebound in oil prices to about \$50 a barrel.

"We will be very gentle in our approach, so we don't shock the market in any way," Saudi Arabia's new oil minister, Khalid Al-Falih, said before he sat down with his counterparts in Vienna on Thursday. "We are satisfied with the price movement over the last few months and think it will continue to gently edge up without much intervention, assuming that more or less OPEC production stays where it is."

The differences between Saudi Arabia and Iran echo the demise of a proposal to freeze production in April. Saudi Arabia made that deal contingent on the participation of Iran, which has insisted on its right to boost crude output to pre-sanctions levels. Kuwait also questioned the need for a production target, even as higher oil prices ease tensions within the group.

"A general quota for OPEC with no country quotas has no meaning," Iranian Oil Minister Bijan Namdar Zanganeh said Thursday. "It's not possible to control or supervise, and what it means is that anyone can do whatever they like and just say that it's within the share." Zanganeh said a country-quota system might be difficult to achieve at today's gathering. As ministers met in Vienna, Saudi Arabia, the organization's largest oil exporter, was discussing ideas including restoring a production target, according to delegates familiar with the situation, asking not to be identified because the talks are private. Still, no formal proposal has yet been made.



“OPEC is still all over the place, but countries are groping for a way to send a signal of unity to the market,” said Bob McNally, chairman of the Rapidan Group, who is in Vienna observing the meeting.

Although the Organization of Petroleum Exporting Countries regularly ignores its own output targets and there was no suggestion anyone would cut production, even token gestures could show a renewed cohesion and lift prices. Options under discussion included a new ceiling of 32.4 million barrels a day, according to Iraq’s deputy oil minister. That’s the same as the group estimated it produced in April.

“Contrary to market speculation, Saudi Arabia is open to cooperation,” Amrita Sen, chief oil analyst at consultant Energy Aspects Ltd., said in a report. Oil fell 0.3 percent to \$49.57 a barrel as of 1:36 p.m. in London on Thursday. Prices have rallied about 80 percent since January, when they slumped to the lowest in more than a decade.

While Iraq and the United Arab Emirates, a key ally for Saudi Arabia, said they favored an output ceiling, another Gulf state, Kuwait, illustrated the divisions within OPEC. “We are not talking about an output ceiling so far,” Kuwait Acting Oil Minister Anas Al-Saleh said on Thursday. “I don’t think we need to divert from a strategy that has been working well so far. And the ceiling is not the strategy.”

Any deal will depend on Iran, which until now has rejected any cap on its production. Saudi Arabia and its allies have said in the past that Iran needs to participate in any deal. An April meeting in Qatar of oil producers from OPEC and beyond ended in a failure because Iran refused to sign up.

Despite the obstacles to a deal, Riyadh’s change of tone is striking and may reflect the desire of Al-Falih, who last month became Saudi Arabia’s first new oil minister in more than 20 years, to start his tenure with a successful meeting.

“I believe that the strategy that OPEC adopted in 2014 has indeed succeeded,” Al-Falih said on Thursday. “We see supply and demand converging.” Introducing a ceiling would show that “OPEC is still important to the oil market,” Gary Ross, chairman of PIRA Energy, a New York-based oil consultant, said. It would signal that “despite political differences, they can work together to achieve similar economic interests -- this is certainly a more positive outcome than the market expected,” he said.

A deal would be a shock. Last month, only one of 27 analysts surveyed by Bloomberg said they expected an output target from OPEC’s meeting. The conciliatory message from Saudi Arabia is an attempt to end a dark period for OPEC in which some analysts declared the organization effectively dead. In 2014, Saudi Arabia and its Gulf Arab allies decided to ditch production constraints in favor of a market-share strategy and prices crashed, bringing financial pain to many members and causing several rancorous meetings.

“There’s been too much emphasis on the divisions within the OPEC body,” Nigeria’s Minister of State for Petroleum Resources Emmanuel Ibe Kachikwu said on Thursday. “We’d like to finish this meeting feeling that we’re cohesive.”



# Leviathan partners sign \$3 bln Israeli natural gas supply deal

Reuters, 29.05.2016



The partners in Israel's Leviathan natural gas field said on Sunday they had signed a deal to supply as much as \$3 billion worth of gas to a new private power plant in central Israel.

Leviathan, one of the largest offshore discoveries of the past decade, was found off Israel's Mediterranean coast in 2010. It has an estimated 622 cubic meters of natural gas (BCM) of reserves and is expected to become operational in 2019. Under the deal, Leviathan will provide up to 13 billion BCM for 18 years to the IPM plant in Be'er Tuvia once gas starts flowing from Leviathan.

The contract comes a week after Israel's government approved a revised deal aimed at fast-tracking development of the huge field, which has been mostly earmarked for exports. In January Leviathan signed a \$1.3 billion gas supply contract with Edeltech, Israel's largest private power producer.

Texas-based Noble Energy, Israeli conglomerate Delek Group and Israel's Ratio Oil Exploration own the Leviathan site, which will cost more than \$5 billion to develop. "This deal is an important milestone, in that it establishes another domestic contract that, together with additional domestic and export contracts, are essential for the quick development of Leviathan," said Niv Sarne, Noble's manager of business development.

The Leviathan project hit a major obstacle in March when Israel's Supreme Court blocked a previous agreement between the field's shareholders and the Israeli state, the terms of which would have stayed unchanged for 10 years.

It had been opposed by opposition parties and public advocacy groups on grounds that Noble and Delek - which also own the adjacent Tamar field - would control too much of Israel's natural gas supply. The ruling will allow the government to change taxes, export quotas or other regulations in connection with the Leviathan field.

## Russia mulls market liberalization

Natural Gas Europe, 27.05.2016



Russia is considering domestic gas market liberalization in the next three years, the head of Federal Antimonopoly Service (FAS) Igor Artemev said May 25. Analysts predict that the illiquid gas exchange trade may not be good enough to form a benchmark gas price, which is prerequisite for liberalization, they told NGE.

Artemev said that the pricing difference between domestic and export gas prices might help to develop the market. Currently, about 40% of the domestic market is held by companies not affiliated with Gazprom, which is a precondition for liberalization, he said, the article noted.

Analysts told NGE that they are cautious about the process of liberalization and prices. "With a regulated price that has increased a lot in the past years, Gazprom is facing tough competition from any other producers that can sell at a lower price. This is in fact a half liberalisation that is negatively impacting Gazprom that cannot choose prices nor customers," said Thierry Bros, a senior European gas analyst at Societe Generale, based in Paris.

"Full liberalisation is going to be difficult as the state wants gas to be delivered even to all customers. Addressing fuel poverty is easier if you have a regulated company that takes care of this," he told NGE. For state-controlled Gazprom, the traditional trade-off has been its export monopoly; but now with European prices so low it is struggling to make money even there.

The government may decide to de-regulate domestic tariffs in the future on the basis of a supply-demand balance that a gas exchange would establish, which would mean lower prices. At the moment competitors sell at a small percentage discount – between 3% and 10% – to Gazprom's higher, regulated price.

"A new price benchmark based on gas supply and demand may yield gas prices for Russia that are not necessarily higher but potentially lower than the current regulated tariffs," Pavel Kushnir, an analyst at Deutsche Bank, based in Moscow, told NGE.

FAS aims to present its proposals on tariffs of natural monopolies which are to be based in the next ten years on an 'inflation-minus' formula. By keeping gas tariff increases below inflation FAS aims to stimulate cost cutting and the sale of non-core assets. "The Russian market is moving in the right direction: that is the development of gas exchange trading – similar to the US and Europe.

That will not necessarily be positive for gas companies, as the Russian market is well-supplied if not oversupplied, so the liberalised market price may turn out lower, not higher, than the current regulated tariff," Kushnir said. Gas exchange trading is still very illiquid, which is not enough to form a benchmark, he said. Recently, independent gas companies opposed selling 10% of their total production on the gas exchange; while Gazprom may be required to sell 6% of its production.

However, it will happen sooner than later, but the liberalization effect could be negative for Russian gas companies, Kushnir said. A source at FAS told NGE earlier this month that at the moment some 10bn m<sup>3</sup> are sold annually on the St Petersburg exchange and the plan is to raise that to at least 30bn m<sup>3</sup>. Gazprom may sell up to 17.5bn m<sup>3</sup>/yr, but sells less than that. He said there are six sellers and around 60 buyers, including end-users active in 412 regions of Russia.

When exchange trading first took off in 2007-8, Gazprom's regulated price was much lower than the exchange price. Then the contract was dropped and not relaunched until 2014. He said an exchange committee had been established to define the market price of gas.

Russia has already effectively sacrificed the interests of gas sector to support growth of general economy. Russia has issued a moratorium on gas tariff increases in September 2013, while Moscow planned just 2% rise for industrial users in 2016-19.

As the liberalization efforts continue slowly, the government is struggling to cope with the drop in oil and gas prices. In May 26, Russia's finance minister Anton Siluanov said that the share of oil and gas revenues in overall budget revenue fell to 43% in 2015, whilst the share further dipped to 34% in the first quarter of 2016.

## Russian President Vladimir Putin aims to renew ties during visit to Greece

WSJ, 27.05.2016



In his first visit to a European Union member nation in six months, Russian President Vladimir Putin traveled to Greece on Friday to discuss energy and privatization deals and to strengthen a traditionally close relationship amid continuing diplomatic tensions with the West.

“Greece can affect the relationships with the European Union,” Mr. Putin said. “But we don’t expect from Greece the Labors of Hercules in the courtyard of European bureaucracy.” The Greek premier said the close ties his country holds with Russia can help promote relations between Russia and the EU, as well as Russia and NATO.

“Everyone recognizes that there cannot exist a future for the European continent with the European Union and Russia at loggerheads,” Mr. Tsipras said. The Russian president also warned the U.S. and NATO to stop setting missile systems near Russia, and added that Moscow feels threatened and is ready to retaliate.

Some elements of the U.S. missile shield are being installed in Poland and Romania. “If yesterday people in these areas of Romania simply didn’t know what it means to be in the crosshairs, then today we will be forced to carry out certain measures to ensure our security,” he said.



“We won’t take any action until we see rockets in areas that neighbor us,” he said. He added that the argument that the project was needed to defend against Iran makes no sense, since an international deal has been reached to curb its nuclear program.

During his first visit to Greece after nine years, Mr. Putin was accompanied by a delegation of ministers and businessmen whose companies either already operate in or are interested in Greece. These include PAO Gazprom Chairman Alexei Miller, OAO Rosneft Chief Executive Igor Sechin and JSC Russian Railways CEO Oleg Belozherov.

Talks focused on trade and investment, in particular in energy and transport, and the Russian president openly expressed his country’s interest in taking part in the potential privatization of Greek rail assets and the port of Thessaloniki, a major gateway into the Balkans.

Greece and Russia have flirted with the idea of Athens participating in a pipeline project that would bring Russian gas into Europe via Greece, though little progress was immediately expected. Mr. Putin trip to Greece comes 10 days after the inauguration of the Trans Adriatic Pipeline bringing gas into Europe from Azerbaijan, an international project that rivals Russia’s gas-export ambitions. It is intended to bring natural gas from the Caspian Sea, easing the region’s reliance on Russian gas.

In recent years Russia has responded to the project by proposing alternative pipelines that would promote its energy interests in Europe’s southeast, such as South Stream, which has been frozen after Bulgaria stepped back.

The Russian president blamed the U.S. and Brussels for that, arguing they had pressured Sofia to withdraw. But he added Russia plans to move ahead with an extension of its Nordstream pipeline in the Baltic, and hopes no one would try to hinder that.

Russia is also trying to promote a direct competitor to the Trans Adriatic Pipeline, IGI Poseidon, a pipeline project driven by Russian gas giant Gazprom aimed at bringing Russian gas via Turkey, or possibly Bulgaria, to Greece and onward to Italy.

Greek officials said the Poseidon project featured in Friday’s discussions, but talks could make little progress because of poor relations between Turkey and Russia. Greece has kept close relations with Moscow even after the EU imposed economic sanctions in the summer of 2014 in response to Russia’s annexation of Ukraine’s Crimea region and its support for separatists in eastern Ukraine. Russia has denied Western charges that it supplied and directed the rebels.

“Greece has repeatedly said that the vicious circle of sanctions is not productive,” the Greek Prime Minister said, but added Greece will stick to the commitments it has as a member of the European Union. Athens has repeatedly voiced reservations about the EU sanctions, but hasn’t blocked them. The sanctions expire in July, but are expected to be extended.

Russia has imposed countersanctions on the West, including a ban on agricultural products that extends to Greece. “As far as Crimea is concerned, we consider this question is closed forever,” Mr. Putin said. “Russia will not have any discussions with anyone on this subject.” Mr. Tsipras visited Moscow twice in 2015 at the height of Greece’s clashes with its European creditors.

Syriza officials last year used the visits to hint that Athens has friends beyond Western Europe, whom it could turn to if Greece were expelled from the eurozone. Russia, however, never offered Greece a realistic alternative to the financing that Athens needs from Germany and other eurozone countries. Mr. Putin is due to visit a monastic community at Mount Athos in northern Greece. The Russian Orthodox Patriarch of Moscow will also be present to mark 1,000 years of Russian presence on Greece's holy mountain.

## Russia's gas export netback could change more often in future

ICIS, 26.05.2016



The price of natural gas exports by independent Russian producers is likely to be linked to a new export netback price, if Gazprom's long-term monopoly on pipeline exports ends. A source said the price may depend on how Novatek and Rosneft agree export deals with gas major Gazprom.

Discussions about ending the monopoly have intensified after the two independent producers asked the government for permission to export gas earlier this spring. Reports in the Russian media said that the companies were holding talks over a deal that would allow them to export gas to Europe by selling it to Gazprom Export at a netback price.

Currently there is only an archetype of an export netback price in Russia. It is an average price of gas exported by Gazprom outside the borders of the Commonwealth of Independent State, a regional organisation consisting of some former Soviet Republics.

The price is calculated by the Federal Tariff Service (FTS) once a year and does not include transport tariffs and customs duties. Last year, it was Roubles 6,086/thousand cubic metres (€81/kcm). Olga Kukanova, deputy director of the energy department within the Federal Antimonopoly Service (FAS), which recently took over FTS's responsibilities, said that the current price could only be used as a template to calculate an export netback.

"It does not represent Russia's export netback objectively because it is calculated just once a year," she said. "A netback will be calculated more often but the mechanism will remain the same," she said. FAS previously said that it was looking to boost domestic gas price transparency by creating a triangle of indices consisting of an over-the-counter gas index, an index for gas traded on the exchange and an export netback price.

The first two indices are expected to be formed by October this year, but there is still uncertainty over when an export netback can be created. "It has not yet been decided who will take responsibility to create an export netback," Kukanova said.



James Henderson, senior research fellow at the Oxford Institute for Energy Studies, said that Gazprom and independent producers may agree on a netback price themselves. He said the companies may form it either around a gas price in Germany or a price that Novatek and Rosneft agree to supply gas to their customers in Europe.

Gazprom earlier denied that it was in talks with Rosneft and Novatek over gas exports. The independent producers did not comment on the matter. But deputy prime minister, Arkady Dvorkovich, told media earlier in May that the government was aware of the “discussion” between Gazprom and Rosneft on the export issue.

He said then no laws would be changed in order to break Gazprom’s export monopoly. He added that if Gazprom wanted to allow other companies to export gas, it would be able to organise that without a change in legislation. Current legislation allows the export scheme with the use of a netback price.

Gazprom has said that allowing other companies to export pipeline gas would harm its position on export markets and reduce its profits. Henderson said that in case Gazprom, Rosneft and Novatek agree an export deal, the former would charge the independent producers for the delivery of gas from the Russian border to a client in Europe and may ask Rosneft and Novatek to share a margin so that it has a profit on trading.

Neither Gazprom, nor Novatek and Rosneft replied to ICIS requests to comments for this article. “It would not be as profitable for Gazprom to transport the gas of independent producers as selling its own gas,” Henderson said.

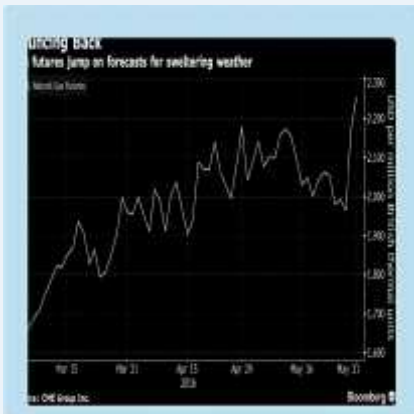
“It is important that Novatek and Rosneft do not steal Gazprom’s customers in Europe. But even if that does not happen there could be some competition as European customers would want to buy gas from different sellers,” he said. It was reported earlier in May that Rosneft had found a client in Britain. Gazprom does not have long-term agreements to supply gas to Britain.

In 2012, Novatek secured a deal to supply gas bought in Europe to Germany’s EnBW. “It is possible that Novatek and Rosneft find clients in Europe that would be different from Gazprom’s clients,” Henderson said. “It would be good news for Russia as its overall gas exports increase.”



# Norway sees US gas as chance for Europe to diversify supplies

Bloomberg, 02.06.2016



U.S. exports of shale gas stand to increase confidence in the fuel as a long-term energy source while giving Europe the chance to diversify its natural gas supplies, Norway Petroleum and Energy Minister Tord Lien said.

“Obviously, more resources coming into the European markets will challenge price developments,” Norway Petroleum and Energy Minister Tord Lien, whose country is Europe’s second-biggest natural gas supplier behind Russia, said in an interview in San Francisco. “In the long-term, I think we will benefit from the fact that a more diversified supply is good for us.”

Exactly how much U.S. gas will affect Europe’s market depends on the volume and cost of the fuel that ends up traveling across the Atlantic, Lien said. U.S. government officials have touted the nation’s gas as a means of diversifying Europe’s supplies and shrinking its dependence on Russia. Only one tanker of U.S. liquefied natural gas has been delivered to Europe since shipments began leaving from Louisiana in February, data compiled by Bloomberg show.

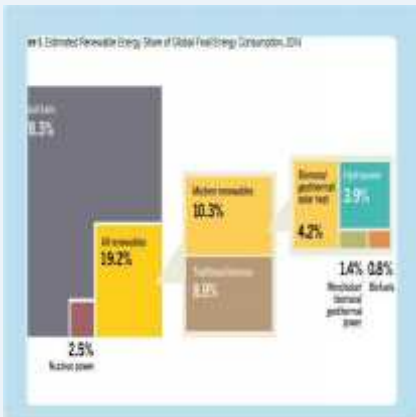
During a lunch held at Cheniere Energy Inc.’s LNG export terminal in Louisiana in April, Robin Dunnigan, a U.S. State Department deputy assistant secretary for energy diplomacy, said the No. 1 question she’s asked while traveling in Europe is when the country will start sending LNG there.

Russia “shouldn’t be the only supplier of natural gas” to parts of Europe, Dunnigan said. “Every LNG cargo that leaves the Gulf Coast, that leaves the United States, helps us chip away at the dominant supplier of natural gas in Europe.”

Norway is meanwhile becoming more of a natural gas producer than an oil one as crude production has declined in recent years, Lien said while attending the Clean Energy Ministerial in San Francisco. The country will increasingly rely on gas as a heating and power-plant fuel to shrink carbon emissions, he said. “Gas obviously has to be part of the climate solution,” he said. “It’s a very cost effective way for reductions.”

# Renewable energy isn't about to doom oil

Bloomberg, 01.06.2016



For hydrocarbon doomsayers, there's good news and bad news. In 2015, there were record investments in renewable energy, and record capacity was added, much of it in emerging economies.

Yet despite the huge investment, the global share of fossil fuels is not shrinking very fast. Renewables such as wind, solar and geothermal still account for a tiny share of energy production, and there are factors that may inhibit their growth in the next few years. REN21, the international renewable energy association backed by the UN Environment Program, has summarized impressive developments in 2015.

Total investment in renewable power and fuels reached \$285.9 billion, an all-time record, and renewable power capacity, including hydropower, increased by 148 gigawatts -- another record -- to 1.8 terawatts. For the sixth consecutive year, investment in new renewable capacity was higher than in hydrocarbon-burning power plants.

Much of the increase came from the developing world. China was in first place; the U.S. came in second, and added more solar and wind capacity than any other country. Turkey added the most geothermal generation. The narrative about the environmentally conscious rich nations and the laggard poor ones is obsolete; Mauritania invested the biggest share of economic output in sustainable energy in 2015, followed by Honduras, Uruguay and Morocco. Bangladesh is the biggest market for home-based solar systems.

One might think the energy revolution is fast displacing fossil fuels. Not really. Although investment in renewables and in the oil industry are of comparable magnitude -- \$522 billion was invested in oil last year -- sustainable energy is growing from a very low base. Here's a chart from the REN21 report:

Wind, solar, biomass and geothermal power used in power generation -- the area where most governments have concentrated their sustainable energy efforts -- account for just 1.4 percent of global energy consumption.

We read about the big successes -- Costa Rica with 99 percent of energy generated from renewable sources, Uruguay with 92.8 percent, three German states with most of their energy coming from wind -- but weaning the world off fossil fuels is an uphill battle.

One reason is regulators' understandable fixation on generation. Wind and solar installations are relatively easy to promote: The technology is already there, all governments need to do is subsidize its use by levying additional taxes or "feed-in tariffs." It's much harder to set up an equally effective mechanism in transportation, which uses the lion's share of oil products.



Although solar and wind generation is already price-competitive with fossil fuels in many countries, modern electric vehicles are pricey, clunky (yes, even the Teslas) and far behind gas-powered competitors in terms of driving range. It would be an expensive proposition for governments to subsidize them to a degree that would make them popular.

Now, because oil is relatively cheap, the global market is moving toward cars that use more gas, especially SUVs. No wonder global oil consumption grew at the fastest rate in five years in 2015. This year, the growth is set to continue. And increases in renewables capacity may hit some obstacles soon.

Most of last year's expansion came from additional wind and solar capacity. Countries such as Germany and Poland added a lot of wind power because their governments are about to end direct subsidies and move to tendering programs, which allow only the lowest bidders to build new power plants.

This is fair: European governments nursed sustainable energy producers when it was hard for them to compete with traditional generation on price, and now it's time for a more market-based approach. The policy shift, however, will probably cause an investment slowdown starting in 2017.

Solar photovoltaic generation has another problem in markets where it has a large, established share, especially in Europe. "The more that solar PV penetrates the electricity system, the harder it is to recoup project costs," the REN21 report says. "So an important shift is under way: from the race to be cost-competitive with fossil fuels to being able to adequately remunerate solar PV in the market."

Other markets, too, will eventually reach a point where government support has to be scaled back because it's harder to justify, and the huge investments of today will become harder to recoup. The current investment and growth rates in renewables are not quite natural, and they are not likely to last. Only major technological breakthroughs in energy storage, both for grids and for vehicles, could ensure another leap in sustainable energy use.

Without such breakthroughs, which will make traditional generation and powertrains vastly inferior to modern ones, demand for fossil fuels will remain strong for decades. The International Energy Agency's projection for 2040, based on the current growth rate in renewables, has the share of natural gas used in power generation roughly at the same level as today. It doesn't predict any drops in oil demand.

Those who have predicted the end of the petrostates and permanently low oil prices are in for a long wait. Fortunes will still be made in fossil fuels, and oil dictatorships will probably keep squabbling and menacing their neighbors at least for most of our remaining lifetimes.

# OPEC policy change unlikely amid Saudi-Iran tension

AA Energy Terminal, 01.06.2016



OPEC is unlikely to change its production given the tensions between Saudi Arabia and Iran, nor is it expected to reintroduce an official output quota, experts told.

“We do not think that either Iran or Saudi Arabia will be willing to change their respective positions about a freeze in oil production, which should prevent any attempts to resurrect a deal,” Thomas Pugh, a commodities economist at London-based Capital Economics, said. The meeting between OPEC members and non-OPEC Russia at the Doha oil producers’ summit on April 17 did not result in a fruitful outcome.

With Iran’s ambition to return its production level to the pre-sanction era, it refused to freeze its output. As a result, Saudi Arabia then stood its ground by stating that it would not trim its production unless Iran does the same. Now, any cohesiveness within OPEC looks slim to none.

“There is unlikely to be any chance of rekindling ideas of an output freeze ... We doubt that the group will establish a new output quota given that Saudi Arabia and Iran are both keen to continue increasing output,” Pugh said.

At OPEC’s last meeting on Dec. 4, the cartel did not keep to its official output quota of 30 million barrels per day (mbpd), but said it would continue producing at its actual level, which back then was 31.7 million barrels per day (mbpd). OPEC’s output reached 32.4 mbpd in April. “Even when the group did have an output quota it was widely ignored,” Pugh said, and added “We do not think it would make any difference to oil supply even if the group did manage to agree on a new output quota.”

Dr. Florence Eid-Oakden, chief economist at the London-based Arabia Monitor analysis firm, said “No deal on output is expected at OPEC’s June 2 meeting, given Saudi Arabia’s insistence that any deal would be conditional on Iran’s participation.”

“However, the underlying economic motivation for Saudi production policy remains -- an attempt to regain market share and drive out high-cost competitors,” she added. High-cost competitors, like U.S. shale oil producers, have been hit hard by low crude prices, especially in the last 12 months.

Total oil output in the U.S. is 800,000 barrels a day less on average compared to June 2015 when production peaked at 9.6 million barrels a day. In addition, the number of oil drilling rigs is down 80 percent since October 2014. However, as oil prices rose from \$28 a barrel in January to over \$50 per barrel last week, this generated hope for U.S. shale producers to raise output should such prices sustain.

“Oil prices are now back at levels that are high enough to suggest that the slide in U.S. drilling activity and production will come to a halt soon, and could even partially reverse,” Pugh said. “There may even be some concern that prices have risen too far, which could allow U.S. shale production to start rising again,” he added.

Eid-Oakden said oil drilling will pick up in the U.S. if prices exceed \$50 per barrel, but pointed out that prices could decline after that. “Longer-dated futures prices, three or more years, have fallen with the prospect of resilient shale oil output, a slow drawdown of high inventories and a strengthening dollar,” she explained.

With the hopes of a production freeze in Doha before April 17, and a three-day oil workers’ strike in Kuwait ending April 20, oil prices began to increase. But the real jump in the price of crude came with supply cuts. The wildfire in Canada’s oil-rich Alberta province, supply disruptions in Venezuela and Nigeria, and the decline in U.S. oil output brought prices to their highest level in last seven months last week.

However, the possibility remains that prices could begin falling once again if production in these locations returns to normal levels, or the value of the U.S. dollar, of which crude prices are indexed to, increases after a rate hike by the U.S. Federal Reserve this summer. “We would caution that oil prices may well have risen prematurely. A rebound in supply from Canada or evidence that the number of drilling rigs in the U.S. is increasing could prompt prices to fall back sharply,” Pugh explained.

“Commodity prices in general, including oil, are also vulnerable to renewed dollar strength if, or when, the Fed resumes its interest rate hikes,” he added. Pugh said he expects the price of crude oil to average \$45 a barrel at the end of this year, and rise to \$60 per barrel at the end of next year.

## Globally €100 to €170 bln. needed for gas storage

AA Energy Terminal, 01.06.2016



Investments of between €100 billion to €170 billion is needed for the anticipated growth in underground gas storage by 2035, a report released by the not for profit association dedicated to natural gas information, CEDIGAZ, revealed.

CEDIGAZ released the report on underground gas storage. The edition “The Underground Gas Storage and LNG Storage Market in the World 2015-2035” analyzed the gas storage markets. The underground gas capacity was 413 bcm at the end of 2015, the report showed. “Global underground gas capacity is expected to increase from 413 bcm in 2015 to between 547 and 640 bcm in 2035,” according to the report.



“This wide range reflects the uncertainties surrounding the evolution of global gas markets plus the uncertainties specific to the gas storage business, such as challenging geology or competition from other flexible sources,” CEDIGAZ underlined. Asia-Oceania, the Middle East, and potentially Central and South America are expected to drive the growth of underground natural gas capacity, the report said. “Conversely, the growth in working capacity should be limited in mature markets, and could even be negative in the EU,” according to CEDIGAZ.

Floating storage and regasification units, known as FSRUs, allow a growing number of countries to access the LNG market, the report pointed out. “The number of LNG importing countries grew from 18 in 2005 to 35 in 2015. This trend is expected to continue, with 20 new countries planning to import LNG from now to 2025,” CEDIGAZ’s report revealed.

The reason for the ongoing growth trend for FSRUs is down to lower costs than traditional onshore plants and shorter lead time, the report said. “FSRUs are playing a central role by facilitating access to LNG markets for new importers. At the beginning of 2016, 118 LNG import terminals, including 17 FSRUs, and 429 LNG storage tanks existed worldwide, with 16 new terminals under construction, of which four are FSRUs,” the report read. Additionally, CEDIGAZ stated that it has identified more than 100 projects at different stages of planning.



# Announcements & Reports

## *Adjustment in the Oil Market: Structural, Cyclical or Both?*

**Source** : OIES  
**Weblink** : <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/05/Adjustment-in-the-Oil-Market-Structural-Cyclical-or-Both.pdf>

## *The Future of Natural Gas Markets and Geopolitics*

**Source** : IAI  
**Weblink** : <http://www.ocppc.ma/sites/default/files/BookIAI-OCPPCv2.pdf>

## *Natural Gas Weekly Update*

**Source** : EIA  
**Weblink** : <http://www.eia.gov/naturalgas/weekly/>

## *This Week in Petroleum*

**Source** : EIA  
**Weblink** : <http://www.eia.gov/petroleum/weekly/>

# Upcoming Events

## *Caspian Oil & Gas*

**Date** : 01 – 04 June 2016  
**Place** : Baku, Azerbaijan  
**Website** : [www.caspianoilgas.az/2016/](http://www.caspianoilgas.az/2016/)

## *Yamal Oil & Gas*

**Date** : 08 – 09 June 2016  
**Place** : Salekhard, Russia  
**Website** : [www.yamaloilandgas.com/en/programmerequest/](http://www.yamaloilandgas.com/en/programmerequest/)

## *7<sup>th</sup> International Energy Forum*

**Date** : 10 June 2016  
**Place** : Istanbul, Turkey  
**Website** : [www.iicec.sabanciuniv.edu](http://www.iicec.sabanciuniv.edu)



## *Energy Systems Conference 2016*

**Date** : 14 - 15 June 2016  
**Place** : London, UK  
**Website** : [www.energysystemsconference.com](http://www.energysystemsconference.com)

## *World National Oil Companies Congress*

**Date** : 15 - 16 June 2016  
**Place** : London, UK  
**Website** : <http://www.terrapinn.com>

## *Energy Trading Central and South Eastern Europe 2016*

**Date** : 15 – 16 June 2016  
**Place** : Bucharest – Romania  
**Website** : <http://www.energytradingcsee.com/>

## *Eurasian Natural Gas Infrastructure*

**Date** : 22 – 23 June 2016  
**Place** : Athens – Greece  
**Website** : <http://www.engi-conference.com/>

## *ERRA Summer School: Introduction to Energy Regulation*

**Date** : 20 - 24 June 2016  
**Place** : Budapest, Hungary  
**Website** : <http://erranet.org>

## *9<sup>th</sup> SE Europe Energy Dialogue*

**Date** : 29 – 30 June 2016  
**Place** : Thessaloniki, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *Global Oil & Gas - Black Sea and Mediterranean*

**Date** : 22 – 23 September 2016  
**Place** : Athens, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *23<sup>rd</sup> World Energy Congress*

**Date** : 09 - 13 October 2016  
**Place** : Istanbul, Turkey  
**Website** : <http://wec2016istanbul.org.tr/>





## *15<sup>th</sup> ERRA Energy Investment & Regulation Conference*

**Date** : 17 - 18 October 2016  
**Place** : Budapest, Hungary  
**Website** : <http://erranet.org/InvestmentConferences/2016>

## *21<sup>st</sup> IENE National Conference "Energy and Development 2016"*

**Date** : 24 - 25 October 2016  
**Place** : Athens, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *European Autumn Gas Conference 2016*

**Date** : 15 – 17 November 2016  
**Place** : Hague, Netherlands  
**Website** : <http://www.theeagc.com/>

## *5<sup>th</sup> Greek Cyprus Energy Symposium*

**Date** : 29 - 30 November 2016  
**Place** : Nicosia, Greek Cyprus  
**Website** : [www.iene.eu](http://www.iene.eu)