

The clean-energy fast track



Kingsmill BondAngus McCrone Jules Kortenhorst| The Daily Star

The global transition from carbon-intensive fossil fuels to cleaner, more reliable renewables like wind and solar is already well underway. But the big question – for the 2020s and beyond – is how fast it will happen. A slow transition would mean that energy-sector incumbents continue to flourish, and we would all but certainly miss the emissions-reduction targets enshrined in the 2015 Paris climate agreement. But if the transition is rapid, incumbents will experience varying degrees of disruption – the price of keeping the Paris targets well within reach. As matters stand, both scenarios are possible, representing two paths that lie before us. In a new report for the World Economic Forum's Global Future Council on Energy, we and our co-authors identify four key areas that will determine which path we take. The Speed of the Energy Transition offers compelling evidence that the transition is coming fast, and that all stakeholders in the global energy system – which is to say, everyone – must start preparing. One

area where the gradual and rapid scenarios diverge is adoption of renewable energy. When will renewables start displacing incumbents? For markets, the key moment will be when renewables make up all of the growth in energy supply, as well as all the growth in electricity supply. That, most likely, will happen in the early 2020s, long before fossil fuels lose their dominant share of total energy supply. As renewables become the leading growth industries in the energy sector, financial markets will increasingly reallocate capital accordingly.

A second area concerns innovation in energy technology, and whether growth in new applications is linear (the gradual scenario) or exponential (the rapid scenario). Solar and wind are already cheaper than fossil fuels when it comes to generating electricity, and electric vehicles are close to challenging internal-combustion-engine cars on price. The evidence suggests that the barriers to growth for EVs in the foreseeable future are soluble. Moreover, new waves of innovation are forthcoming, in the form of nascent but already viable technologies such as green hydrogen energy. Prices for renewables will most likely drop far below those of incumbent energy sources – and fast – leading to exponential growth in green energy.

A third key area is public policy. Will policymaking remain cautious, or will it become more dynamic and ambitious as new technologies create opportunities to improve the design and functioning of markets? Inertia being a powerful force, existing policies have been limited in scope. But history teaches us that there are tipping points: Once genuine change comes, it tends to be adopted rapidly across the board – as in the case of laws prohibiting smoking indoors.

Given that new technologies are already providing better solutions for consumers' energy needs, policymakers inevitably will respond to their constituents' demands. Once enough politicians recognize that the energy transition is not

expensive, and will actually boost competitiveness (thereby reducing prices), they will update the rules governing energy markets to make way for the change that is already underway.

The last key area is emerging markets, which could either follow the fossil-fueled path of developed countries, or leapfrog to newer energy technologies. Countries like China and India undoubtedly need to generate far more energy for their citizens, and there are almost 1 billion people worldwide who still lack access to electricity. But that doesn't mean emerging and developing countries have to opt for high-emission fossil fuels.

Just as mobile phones made landline telephony irrelevant in much of the developing world, increasingly affordable renewables can become the obvious first choice for generating energy.

From our perspective, the evidence clearly points to a rapid energy transition in the years ahead. The danger is that key stakeholders – whether policymakers or investors – will mistake which path we are on, and make poor decisions. If so, we will all have to bear the costs of stranded high-carbon assets and bad investments in obsolete technologies. Worse, we will have missed an early opportunity to achieve sustainability and minimize the risk of catastrophic climate.

Everyone – from innovative technology startups to energy incumbents and government policymakers – has a role to play in determining which path we take. If stakeholders recognize the rapid pace of the global energy transition already underway and embrace the change, we can still hit the Paris targets and have a planet that allows everyone to thrive.

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Europe looks on with dismay as Brexit disarray deepens



By Laura King /London

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Watching the growing disarray unfolding in Britain, the rest of Europe is worried.

With British Prime Minister Boris Johnson battling his own party and parliament over Brexit, smashing political norms as he goes, the prospect of Britain “crashing out” of the European Union on October 31 is still seen by many as a real possibility – even though British lawmakers have passed a bill meant to preclude that scenario.

Britain’s parliament – suspended early Tuesday by Johnson amid a raucous outcry from the opposition – is now in a five-week hiatus that ends just two weeks before the Brexit deadline.

The prime minister says he still wants to make a deal with the EU, but there’s been no sign of significant progress on the major points of contention, including how to deal with what will be a new EU-UK land border on the island of Ireland.

Economists generally agree that if Britain departs the 28-nation bloc with no withdrawal accord, the British economy

will suffer a far greater shock than will its European counterparts.

But repercussions will be felt across Europe and beyond, with fears in several EU states that Brexit could help nudge a prospective economic slowdown towards full-blown recession.

The EU, which never wanted Britain to leave, is still likely to grant an extension of the October 31 deadline, although Johnson swears he won't seek one, and the bloc is increasingly pessimistic that Britain can find a way out of its conundrum.

The EU is also unsettled over continuing uncertainty about the fate of its 3.6mn nationals living in Britain, many of whom are discovering, to their dismay, that decades of working and paying taxes in the UK are no guarantee they will be allowed to stay.

And while Brussels is accustomed to worrying about anti-democratic tendencies in member states like Hungary and Poland, and about far-right inroads being made there and elsewhere, EU officials have been alarmed by the spectacle of emerging constitutional stresses and strains in Britain, one of the traditional pillars of the postwar order.

Here's a look at some of the major EU players and how they view the latest developments:

* IRELAND

Ireland might have the most to lose. It views Brexit – especially a no-deal departure – as a threat to both peace and prosperity.

For nearly two decades, the border with Northern Ireland has been open, and that invisibility is considered a crucial element in reversing decades of sectarian strife that killed thousands in the three decades leading up to 1998's Good Friday accord.

With the looming prospect of a "hard" frontier between EU member Ireland and Northern Ireland, which is part of the UK, there are worries that barriers and checkpoints would become a magnet for extremist attacks.

The EU has been adamant in its insistence that the border stay open; Johnson has demanded the scrapping of a withdrawal-

accord provision meant to ensure that.

The prime minister travelled to Dublin on Monday, where his Irish counterpart, Leo Varadkar, said he hasn't yet seen any concrete British proposals to address the border quandary – and added pointedly that a no-deal departure would only be the beginning of tortuous new negotiations over the Irish frontier.

“There is no such thing as a clean break,” he told Johnson.

* GERMANY

As the continent's economic powerhouse – but one seeing fiscal storm clouds on the horizon – Germany wants to help ease Britain's path out of the EU, if it insists on going.

Chancellor Angela Merkel last month appeared to try to throw Johnson a lifeline when she suggested during a Berlin meeting with him that Britain try in the next 30 days to come up with some concrete new proposals for an accord that the EU previously said was not open to renegotiation.

But three weeks have already elapsed, with no new Johnson talking points disclosed.

Germany's Foreign Minister Heiko Maas said this week that “we remain in principle ready to talk” about Brexit terms, but that that “ultimately requires clear decisions and proposals from London.”

Brexit is already depressing German economic projections.

The Federation of German Industries, the main umbrella group for industrial trade associations, says a no-deal departure by Britain would bring already weak growth forecasts for the year down to zero.

But business uncertainty brought on by a new delay would also dampen economic prospects, said the head of the German Institute for Economic Research, an independent research group. Meanwhile, powerful German companies are already preparing for the possibility of a no-deal break with plans to reduce their footprint in the UK.

BMW, the automaking giant, said it would curtail production at its plant in Oxford as the deadline approaches.

* FRANCE

French President Emmanuel Macron has shown some willingness to play the EU's disciplinarian in dealings with Britain, while remaining supportive of an orderly departure if one must take place.

This week, Foreign Minister Jean-Yves Le Drian signalled impatience with Britain's inability to either move towards a definitive break with the EU, strike a deal with the bloc or call the whole thing off.

"The British must tell us what they want," Le Drian said exasperatedly in a weekend radio interview, referring to the polarisation and deadlock that have prevailed since the 2016 Brexit referendum, which won narrow approval.

"For three years, the UK... has found no way forward."

Any Brexit extension requires unanimous approval by EU members, and France is unlikely to use its veto power. But the country is preparing for no-deal contingencies, getting ready for a weeks-long "rehearsal" by customs authorities at airports, train terminus points and ports, especially Calais, the gateway to the tunnel under the English Channel.

France, like Germany, has been taken aback by Johnson's take-no-prisoners style on Brexit, but has stressed that Britain, not France or the EU, would bear the economic brunt of a no-deal departure.

However, Macron has already seen his popularity dented by months of "yellow vest" populist protests, and can ill afford bad economic news.

* THE NETHERLANDS

Holland is a relatively small player among European economies, but Britain looms large in its financial relationships as a main trading partner and its biggest international investor.

The Dutch port of Rotterdam, Europe's largest, now enjoys seamless intra-EU trade with Britain, but will be burdened by the need for customs checks and goods inspections if Brexit goes ahead as scheduled.

Still, the Dutch position on Brexit is hardening.

Holland is working to woo companies that are abandoning Britain to relocate operations within the EU.

Dutch Minister for Trade Sigrid Kaag told the financial newspaper Het Financieele Dagblad last week that there would need to be a “good reason” for granting a new Brexit delay. The Netherlands, like Britain, once bestrode a far-flung empire.

As the Brexit crisis intensified earlier this year, Dutch Prime Minister Mark Rutte offered some succinct advice about the global standing of former colonial powers.

Britain, he told the Guardian newspaper, “is going to become an economy of middling size in the Atlantic Ocean. It is neither the US nor the EU. It is too small to appear on the world stage on its own.”

Policymaking in the Netherlands tends to be influenced by a strong pragmatic streak, but Johnson’s seeming loss of control over the Brexit process has dumbfounded some influential Dutch politicians.

“We thought the Brits were rational pragmatists,” said Anne Mulder, a Dutch lawmaker who leads the country’s Brexit planning in parliament, told the Financial Times.

“Well, they aren’t.” – Tribune News Service

Russia’s Main Gas Route to Europe Seen at Risk After Opal Ruling

limited options to replace all the supplies, while Russia gets a huge chunk of its foreign income from the sales and Ukraine is heavily reliant on the payments it gets from shipping the fuel through its territory.

“The European Commission might think it’s got a stronger hand in negotiations, but I think that’s faulty logic,” said Yafimava by phone. “It lowers the chance of a long-term transit contract across Ukraine.”

How Russia supplied Europe last winter

Poland successfully challenged a 2016 European Commission decision that allowed Gazprom to use most of the capacity on the Opal pipeline, which carries Russian gas from the Nord Stream line to Germany. German regulator BNetzA followed up on the decision, enforcing its implementation, and said Gazprom’s shipments through Opal must be reduced to half the capacity. Shipments began slowing along the pipeline on Saturday.

Other analysts including Rystad Energy AS and BloombergNEF have said the decision might actually spur a deal as it limits Gazprom’s options. Russia will study the ruling, which “affects the overall situation with the energy supply of European countries,” Energy Minister Alexander Novak said Thursday.

Gazprom could even blame the decision for increasing the risk of supply shortages this winter, Yafimava said.

“The ruling adds pressure to Europe’s supply situation,” said Yafimava. “It was not expected and the timing was very bizarre, a little before the trilateral negotiations for the Russian-Ukraine agreement. Before the ruling, Gazprom would have the insurance that it would have this capacity and now it is not sure anymore.”

The U.S. and Poland are among nations seeking to hamper Nord Stream 2, a doubling of the capacity of the current link,

which is meant to be finished this year but has faced issues with construction permits. Supplies from Russia via Ukraine's gas grid may halt if an expiring transit deal isn't replaced by the end of the year.

The latest court ruling moves Russia and Europe further away from each other and from a five-to-10 year Ukraine transit deal, because it further erodes what little goodwill was left, Yafimava said.

"It's a big gamble. Nowhere is Gazprom obliged to book on a 10-year basis," she said. "A long-term deal could have been done in exchange for removing obstacles for NS2, for instance, but the court decision on Opal makes it less likely."

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China aims to rev up shale gas drive; wean itself off imports amid US trade row



SINGAPORE/BEIJING (Reuters) – China aims to slash its growing dependence on gas imports by boosting domestic projects like shale fields as the security of its energy supply comes under the spotlight amid a festering trade war with the United States.

The row with Washington has overshadowed China's economy, likely slowing gas demand growth considerably this year, a new government research report shows. But Beijing is funding new efforts to boost domestic production, particularly from so-called unconventional sources like shale gas, as weaning China off its import reliance takes on new importance.

The report, released on Saturday by the oil and gas department at the National Energy Administration (NEA) and a State Council research arm, calls for boosting natural gas production in key resource basins in the southwestern province of Sichuan, the Erdos basin in the north and offshore China.

According to the report, China's gas consumption will rise by about 10% this year to 310 billion cubic meters (bcm), and to

continue growing until 2050. Though slowing from last year's 17.5%, 2019's growth still represents an annual addition of 28 bcm, faster than the annual average growth of 19 bcm during 2007-2018, the report said.

While China imposed tariffs on imports of liquefied natural gas (LNG) from the United States starting last year, it remains the world's second-largest buyer of the super-chilled fuel.

"China's reliance oil and gas imports is growing too rapidly, with oil topping 70% and gas moving toward 50%," said Lin Boqiang, Director of the Energy Economics Institute at Xiamen University.

The NEA report calls for building the Sichuan basin into the country's top gas hub due to its rich resource base in both conventional gas fields and unconventional resources, such as shale gas and 'tight gas', a low-permeability gas derived from reservoir rocks and costly to develop.

"Through expanding development of deep-reservoir gas, tight gas and shale gas, Sichuan is likely to account for about a third of the country's total natural gas output," the report said, up from 20% currently.

Shale gas in Sichuan, the key region for China's still fledgling shale gas development, could overtake conventional gas in output, the report added.

SHALE GAS

In a separate report carried by official news agency Xinhua on Saturday, Zhao Wenzhi, an influential researcher at China's Academy of Engineering forecast that China's shale gas output could reach 280 bcm, or 23% of the country's total gas output, by 2035. Zhao also serves as president of Exploration and Production Institute at state giant PetroChina.

China last year produced about 10.9 bcm shale gas, less than 7% of the nation's total gas output at 161 bcm.

The leap in projected shale gas output would require companies drilling over 500 wells a year between 2019 and 2035, double the 2018 level, Zhao was cited as saying.

Dominant state oil and gas firms have already ramped up drilling activities with near-record spending, in response to a call by President Xi Jinping in August last year to boost domestic energy security.

To expedite the growth, Beijing should consider offering tax sweeteners such as waiving resource tax on the shale gas, Zhao said.

China recently also announced a policy to extend subsidies for another three years on domestic production of unconventional gas, to include also tight gas for the first time.

In a research note last week, Wang Xueke, a consultant at Wood Mackenzie, raised China's tight gas outlook to 85 bcm by 2040, up from an earlier forecast at 68 bcm.

Despite the lofty forecast and state subsidies, China faces complex geology and a lack of technological breakthroughs to make shale gas a profitable enough business to lure private money.

"The investment is still too small as only a handful state-run companies are exploring it ... Technology progress is not fast enough," said Xiamen University's Lin.

Reporting by Muyu Xu and Chen Aizhu; Editing by Kenneth Maxwell

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Sanctions choke Iran crude sales, but oil product exports booming



LONDON (Reuters) – While U.S. sanctions on Iran’s oil industry have slashed the OPEC member’s crude exports by more than 80%, oil product sales from the Islamic Republic remain strong at nearly \$500 million a month, shipping data and Reuters calculations show.

Sanctions have barely affected Iran’s exports of oil products, primarily fuel oil used for power generation and shipping as well as liquefied petroleum gas (LPG) used as cooking gas and petrochemical feed.

Iran’s product exports reached their highest level in August, oil minister Bijan Zanganeh was quoted as saying by a lawmaker after a parliamentary meeting on Aug. 27. “In exports of

products we have no problem,” Zanganeh was cited as saying.

Consultancy FGE estimates Iran’s product exports at 400,000-500,000 barrels per day, exceeding the top end of crude export estimates by other analysts of some 400,000 bpd for July.

Refinitiv Eikon data shows Iran exported more than 230,000 bpd of fuel oil in August, all to the United Arab Emirates, slightly above July’s figure of 220,000 bpd. At current prices, and assuming Iran is not selling at a big discount, such sales generate over \$300 million a month.

Data intelligence firm Kpler says Iran exported 514,000 tonnes of LPG in July, or nearly 200,000 bpd, worth over \$180 million at market prices. This compares with 579,000 tonnes in June. China accounted for more than 95% of Iranian LPG exports in June, according to Kpler.

Samantha Hartke, head of natural gas liquids and LPG at consultancy Energy Aspects, said her firm did not expect Chinese imports of Iranian LPG to abate given China’s new petrochemical capacity is creating significant demand for the feedstock.

“The irony is: if not for the U.S.-China trade war, the U.S. would have greatly benefited from this uptick in Chinese demand as a means of mopping up its overabundance of LPG supplies, thanks to shale,” she added.

Unlike crude oil, where the ultimate buyer is a refinery, fuel oil and LPG can find their way to potentially thousands of small-scale industrial or residential buyers, Iman Nasser, managing director for the Middle East with FGE, told Reuters.

“The market for these two products is so vast that finding and targeting those individuals is not easy,” he said.

In July, Grace 1, a jumbo tanker laden with Iranian crude, became the most-watched ship in the world after the British navy seized it off the coast of Gibraltar on suspicion of carrying oil to Syria.

The tanker has changed its name to the Adrian Daria since being released by Gibraltar and is in the eastern Mediterranean.

Oil products, like crude, fall under U.S. sanctions.

“Non-U.S. persons engaged in this sanctionable conduct could be sanctioned themselves and be subject to blocking by the U.S.,” Erich Ferrari, a Washington-based attorney who specializes in sanctions law, told Reuters.

Iran’s oil ministry did not immediately respond to a Reuters request for comment.

SELF-SUFFICIENCY

Iran has a refining capacity of around 2.23 million bpd, putting it behind regional leader Saudi Arabia. But years of sanctions and underinvestment mean the country’s refining sector lags its Gulf neighbors, who have invested billions of dollars to create some of the world’s most complex refineries.

Despite the challenges, Iran declared self-sufficiency in gasoline after the inauguration of the third phase of its 350,000-bpd Persian Gulf Star refinery in February. Shipping data shows Iran has imported barely any oil product recently.

Iranian gasoline production stands at 105 million liters per day, according to Zanganeh, or around 660,000 bpd, while consumption is around 100,000 bpd below production. It even exported gasoline this year for the first time. Its gasoil production stands at around 720,000 bpd.

Additional reporting by Dmitry Zhdannikov; Editing by Dale Hudson

Russia's compliance with Opec+ deal slips as Druzhba crisis ends



Russia's average daily oil output in August exceeded its Opec+ cap for the first time since April as the impact of the Druzhba contamination crisis faded. The country pumped 47.8mn tonnes of crude and condensate last month, according to preliminary data from the Energy Ministry's CDU-TEK unit. That implies a daily average of 11.294mn barrels – based on the standard 7.33 barrels-per-tonne conversion ratio – and is 104,000 barrels a day above its Opec+ target, Bloomberg calculations show. Russia's compliance with pledged production cuts has retreated just weeks before Opec+ ministers meet in Abu Dhabi to discuss the implementation of their accord to curb output. The Organisation of Petroleum Exporting Countries and its allies agreed in July to extend their pact into 2020. Under the deal, Russia committed to cut output by 228,000

barrels a day from October levels. The nation reduced oil production more steeply than required in the three months through July, after the discovery of contaminated crude in the Druzhba pipeline forced parts of the link to shut down. Energy Minister Alexander Novak signaled last week that August compliance would be lower, given the deep cuts made previously, Interfax reported. Opec and its partners, a 24-nation coalition known as Opec+, agreed to reduce output by 1.2mn barrels a day at the beginning of 2019 as a faltering global economy and booming US shale-oil production threatened to leave world markets with a glut.

Opec output rises for first time since start of '19 cuts



Bloomberg /London

Opec's crude production rose last month, the first increase

since the group and its allies started a new round of output cutbacks at the start of the year to shore up a weak global market.

Nigeria and Saudi Arabia led the boost by the Organisation of Petroleum Exporting Countries, which collectively increased by 200,000 barrels a day to 29.99mn a day, according to a Bloomberg survey. The survey is based on estimates from officials, ship-tracking data and consultants including Rystad Energy and JBC Energy GmbH.

Opec and its partners, a 24-nation coalition known as Opec+, agreed to reduce output by 1.2mn barrels a day at the beginning of 2019 as a faltering global economy and booming US shale-oil production threatened to leave world markets with a glut. That deal replaced a previous round of curbs that began in January 2017.

The strategy has struggled to shore up prices against a deteriorating outlook for global growth and a seemingly intractable trade war between the US and China. Brent futures have subsided more than 20% from a peak reached in April and traded near \$59 a barrel yesterday.

Riyadh boosted output by 50,000 barrels a day to 9.83mn a day in August, a time when domestic consumption typically climbs amid soaring use of air conditioning.

Nigeria hasn't made any of the cuts it pledged, and increased output again in August, by 60,000 barrels a day to 1.95mn, the highest level since early 2016. The West African producer has ramped up production to maximum levels at its new Egina offshore oil field operated by Total SA, according to the International Energy Agency.

Russia, the biggest producer outside Opec in the coalition, has also shown signs of backsliding on its commitments.

The country pumped 11.294mn barrels a day in August, or 104,000 a day more than its limit under the Opec accord. Energy Minister Alexander Novak had signalled compliance would slide as Russia cut more than required earlier this year following the discovery of contaminated crude in its Druzhba pipeline.

A committee made up of key members in the Opec+ alliance will meet in Abu Dhabi on September 12 to review their progress in stabilising world crude markets. The full coalition will then gather in December in Vienna to consider any action required in 2020.

Turkish economy shrinks only 1.5% in Q2 as recovery beckons



By Behiye Selin Taner and Ezgi Erkoyun

ISTANBUL, Sept 2 (Reuters) – The Turkish economy contracted less than expected in the second quarter, 1.5% year-on-year, as it looks to shake off the effects of a recession brought on by last year's currency crisis.

Compared with the first quarter, gross domestic product grew

at a seasonally and calendar-adjusted 1.2%, its second positive reading in a row, the Turkish Statistical Institute data showed.

Turkey's economy has a track record of more than 5% growth, but inflation and interest rates soared tmsnrt.rs/2k8VNhL after the Turkish lira lost some 30% of its value last year and domestic demand fell sharply as it tipped into recession.

Measured annually, Turkey's economy has contracted for the past three quarters. A Reuters poll forecast a 2% year-over-year contraction in the second quarter, leading to zero growth in 2019.

Consumption in the latest quarter was stronger than economists predicted and net exports, helped by the weak lira, also limited the annual contraction, suggesting a recovery may have taken hold.

"We think the rise from the bottom started as of Q2," wrote Muammer Komurcuoglu, economist at Is Yatirim. "But the recovery is fragile for now and the extent of it will be determined by the course of central bank interest rate cuts and global risk appetite."

The lira strengthened beyond 5.80 to the U.S. dollar after the data, from 5.8175 immediately before. It stood at 5.8130 at 0832 GMT.

Last year's currency crisis, brought on by a diplomatic row with Washington and doubts about the independence of the central bank, ended years of a construction-fuelled boom driven by cheap foreign capital.

The lira is down another 9.6% so far this year, but a dip in inflation in recent months opened the door for the bank to slash rates below 20% in July and begin a monetary easing cycle. Business investment, held down by high borrowing costs

and currency uncertainty, fell in the second quarter to help keep overall year-over-year GDP negative. Industrial production weakened significantly in June.

But other data suggest a turnaround in the Middle East's largest economy despite risks ahead, including a trade war that could lead to a global slump.

A PMI business survey published separately on Monday showed that after 17 months of contraction Turkish manufacturing activity declined only modestly in August, suggesting firms may be readying for a return to growth.

The government also made revisions to GDP data going back to early 2017 – including a slightly smaller annual contraction of 2.4% in the first quarter of 2019 – which generally showed a bit stronger past performance.

Jon Harrison, head of emerging markets macro strategy at TS Lombard, said he still expects the economy to contract this year.

The GDP data “confirms that growth is not doing very well and although it is moderately better than expected ... concerns are still there about whether there will be an overshoot of monetary policy, and a renewed depreciation in the currency,” he said.

Additional reporting by Birsen Altayli and Tom Arnold; writing by Jonathan Spicer; editing by Larry King

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Cyprus runs the risk of being trapped into an expensive undertaking with gas deal



DEFA announced on 23 August its decision to award the tender for the construction of an LNG import terminal at Vasilikos. This will comprise a floating storage regasification unit (FSRU), a jetty for the mooring of the FSRU, pipelines, port and other facilities.

The winner is a consortium comprising China Petroleum Pipeline Engineering Co Ltd (CPPE), Aktor SA and Metron SA, Hudong-Zhonghua Shipbuilding Co. Ltd and Wilhelmsen Ship Management Ltd.

Announcing its decision DEFA said “we believe that the future of the country is aligned with natural gas and we expect it to

play a major role in the economic development of the country in years to come.

“The establishment of the natural gas market will boost the development of the whole energy and industry sectors of the Republic.”

Indeed, natural gas can help bring carbon emissions down. In order to produce the same energy output gas emits about 27 per cent less carbon dioxide in comparison to diesel oil. As a result, replacing diesel by gas in power generation will be helpful, at least initially. I say initially, because the EU’s target is to reduce emissions by 40 per cent by 2030 in comparison to 1990 levels.

The challenge for Cyprus is that so far it has been promising small reductions to its CO₂ emissions in comparison to 2005, when these were close to their peak – about 60 per cent higher in comparison to 1990 according to Eurostat data. By the end of 2017 Cyprus’ emissions were only marginally lower than in 2005.

In fact the incoming European Commission (EC) President, Ursula von der Layen, promised to increase EU’s 2030 CO₂ reduction target to 50 per cent. In addition, the EC has already sent back Cyprus’ Energy Plan to 2030 for not being ambitious enough and requested it to be revised nearer EU targets.

With no other change, and with power generation being only 20 per cent of Cyprus’ total energy consumption, introduction of LNG will reduce carbon emissions only by 8 per cent in comparison to 2005 and close to 50 per cent higher than in 1990. A modest but useful reduction, but it will not get close to EU expectations for 2030. Cyprus will need to do a lot more to achieve that – by substantially increasing use of renewables and biofuels.

Impact on electricity costs

When asked about cost implications, DEFA said that state ownership of the project will allow the cost of importing and regasifying LNG to be kept sufficiently low to keep the cost of gas offered to EAC below \$10/mmBTU (per about 1000 cubic feet) – the equivalent cost of oil at current prices.

DEFA was also asked how can Cyprus commit itself to expensive infrastructure when it does not yet know whether it can secure gas at an affordable price. The response was that that even if the ongoing process – in response to the request for expressions of interest for the long-term supply of LNG for 10-20 years – does not produce favourable prices, DEFA's needs can be met in the short-term by the spot market, which with today's prices can provide LNG at \$3-\$4/mmBTU.

Indeed, as a result of excessive supplies of LNG, spot gas prices in Europe are currently at a low, at about \$4/mmbtu. However, in October 2018 they were about \$10/mmbtu. But by 2022 – the time at which Cyprus will be ready to import LNG – demand is expected to exceed supply, with prices rising again. Available forecasts estimate the price of gas in Europe to average about \$6.50/mmbtu in the ten-year period to 2030.

Given the small quantities required by Cyprus – initially about 0.5 million tonnes LNG per year – the spot price for LNG to be delivered to Cyprus is expected to be higher. Adding to this the recovery of the cost of constructing the facilities (allowing for the EU grant), operation and maintenance – and other related costs and costs incurred by EAC – is likely to bring the total cost above the \$10/mmbtu level. Long-term supply contracts would cost even more.

What is amazing is that the decision to proceed with award of the construction contract appears to have been taken without first securing LNG at reasonable prices and without a commercial viability study based on expected, reliable, LNG costs.

Other issues

DEFA expects to finalise award of the construction contract by mid-October, with the facilities becoming operational by the end of 2021.

But there may be complications. First, its decision to award the tender to the CPPE consortium, taken after a short evaluation period of six weeks, may be disputed by other bidders, which may cause delays.

It should be noted that the unsuccessful consortia are well known, experienced companies, in the global LNG industry. In contrast, CPPE, the leader of the winning consortium, has no real LNG experience.

There are also questions about members of the winning consortium. Aktor SA is the sister company of Helector, facing corruption charges related to HYTY Paphos. Aktor SA had accusations leveled against it for fraud related to projects in the Balkans. Both companies are fully-owned by Greece's Ellaktor Group. These and other questions will hopefully be cleared during the period before final award, but could, nevertheless, cause months of delays.

Will gas boost Cyprus economy?

Given the above, this is not certain. Gas could boost industry and benefit the economy if its introduction leads to substantial cost reductions in comparison to diesel. But this may not be the case. In fact it could be the opposite.

Import of gas by pipeline, either directly from Aphrodite or by accepting Energean's offer to supply gas from its gas-fields in Israel, could do exactly that, with gas prices to EAC less than \$7/mmbtu. Sadly these options have not been taken on.

Moreover, gas alone will not reduce carbon emissions to the

levels required by the EU. This would require a substantial increase in the share of renewables and biofuels in Cyprus energy mix.

Without properly and transparently demonstrating the commercial viability of the project – based on reliable data – Cyprus runs the risk of being trapped into an expensive undertaking for at least the next ten years. Not only this may not boost industry, but may also become a long-term burden to Cyprus' economy.

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Britain's Brexit breakdown



British democracy was once widely seen as a model for others to follow. But it has now sunk into its deepest crisis in living memory. At stake is not only whether the United Kingdom crashes out of the European Union without an exit deal, but also how far a country once famed for stability and moderation descends into political civil war. Prime Minister Boris Johnson seems determined to take the UK out of the EU on October 31 at any cost. The chances of a chaotic no-deal Brexit increased dramatically on August 28, when Johnson moved to suspend the UK parliament for five weeks between mid-September and October 14.

It will now be much harder – but not impossible – for his parliamentary opponents to thwart him. Johnson claims that he wants a deal, but that the threat of leaving without one is needed to force the EU to compromise. In his view, curtailing parliament's ability to block a no-deal Brexit was necessary to make the threat credible. It is not inconceivable that EU leaders, who meet as the European Council on October 17-18,

might agree on a revised deal that British MPs would then rubberstamp, for fear of the alternative. But Johnson's demands are extreme. In particular, he wants to scrap, not just modify, the "backstop" designed to keep the Irish border open – and to preserve the fragile peace in Northern Ireland – after Brexit. That suggests his real aim is to blame EU intransigence for the failure of renegotiations and to provoke his parliamentary opponents into forcing a general election, for which he is already preparing with a blizzard of spending promises and catchy policy announcements. In the election campaign, Johnson would accuse parliament of thwarting "the will of the people," meaning the narrow 2016 vote to leave the EU. This tactic might erode support for Nigel Farage's Brexit Party and rally most Leave voters under Johnson's Conservative banner. With Remainers divided, Johnson might win the sizeable parliamentary majority that eluded his predecessor, Theresa May, in the 2017 general election. But for now, there is no democratic mandate for a no-deal Brexit. The 2016 referendum did not specify how the UK would leave; the Leave campaign simply promised that doing so would be easy, painless, and by agreement. A no-deal Brexit would be none of those things. The government's own planning envisages ports seizing up and businesses going bust as tariffs on UK exports to the EU go up overnight. Food, medicines, and fuel could run short. Civil unrest would be likely. And a painful recession would doubtless ensue. Worse, such an outcome would cut the UK adrift from its European neighbours. A post-Brexit trade deal with the EU, with which the UK does nearly half its trade, would be postponed indefinitely; even starting talks would require Britain to swallow the terms of the rejected withdrawal agreement. Bad blood would also jeopardise security and foreign-policy co-operation. No wonder US President Donald Trump, who hates the EU because it enables Europeans to stand up to him together, is cheering Johnson on. A no-deal Brexit also would be painful for the EU, and especially Ireland. The fragile eurozone economy, which already is grappling with China's slowdown and the uncertainty created by

Trump's trade wars, could plunge into recession. And given the limited scope for European monetary or fiscal stimulus, the damage could be more severe than expected. How, then, might a no-deal Brexit still be stopped? Rebel MPs' preferred option had been to pass legislation instructing Johnson to seek a further extension to the UK's exit deadline. They might still do so next week, or even just after the October European Council meeting. But the timing is very tight, and government delaying tactics could stymie the rebels. Moreover, Johnson might ignore such an instruction; the EU could reject an extension request; or, more plausibly, it might impose conditions on the extension that Johnson would reject. The rebels' second choice – a no-confidence vote – now seems likely next week. With his allies from Northern Ireland's Democratic Unionist Party, Johnson has a parliamentary majority of just one. And because his suspension of parliament has outraged rebel Conservatives who had previously balked at bringing down their own government, a no-confidence vote now stands a greater chance of success.

But bringing down the government would not be sufficient to stop a no-deal Brexit. The motley crew of rebels also would need to support the formation of a caretaker government that would seek a Brexit extension, call a general election, and perhaps also legislate for a second referendum. Moreover, Labour Party leader Jeremy Corbyn, a hardline socialist and closet Brexiteer, insists on leading such a government. That would require Conservative rebels, opposition Liberal Democrats, and also MPs who quit Labour in protest over Corbyn's leadership to rally behind him – a tall order.

Alternatively, if Corbyn failed to muster a majority, he could give Labour's backing to a caretaker government led by someone less controversial – but that is also unlikely. If an alternative government could not be formed within two weeks of a successful no-confidence vote, rebels would need to hope that Johnson called – and lost – an election before October

31. Johnson might calculate that it would be easier for him to win an election before no-deal chaos materialises; for now, at least, he says he won't trigger a pre-Brexit poll. That leaves the nuclear option of parliament voting to revoke unilaterally Britain's notification of its intention to leave the EU under Article 50 of the Treaty on European Union. This is the only surefire way to thwart a no-deal Brexit. But it would be an incendiary move. Many Leavers would see it as an anti-democratic coup. And because it would reverse the 2016 referendum result, such a step would necessitate a new plebiscite pitching Remain against No Deal. With luck, Johnson's scorched-earth tactics will spur his disparate opponents into overcoming their differences to stop a no-deal Brexit. But whatever happens, the pragmatic centre is being squeezed out of British politics. Both hardline Brexiteers and diehard Remainers have rejected the only available exit deal. As each side ups the ante, Brexit is now an all-or-nothing fight to the death among absolutists. – Project Syndicate

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