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Daily Environment Report

Afternoon Briefing - Your Preview of Today's News

U.S. Is Said to Favor 15 Billion-Gallon Biofuels Requirement

Posted July 05, 2017, 12:13 P.M. ET

By Jennifer A. Dlouhy, Mario Parker and Ari Natter

The Trump administration will propose requiring refiners to use 15 billion gallons of conventional renewable fuels in 2018, a modest win for Midwest corn farmers and U.S. ethanol producers.

The proposed biofuel target was described by people familiar with the decision who asked not to be identified before it was formally announced. That mandate would reflect a 15 billion-gallon ceiling in federal law for conventional renewable fuel and would mirror the current 2017 requirement for that category, mostly fulfilled by corn-starch-based ethanol.

Donald Trump promised to support ethanol while campaigning for president and he reiterated that position in a speech in Iowa last month. The ethanol industry is "under siege," but the Trump administration is saving it, the president told a crowd in Cedar Rapids.

The decision sets up a clash with oil refiners, which had argued the ethanol requirement exceeds a 10 percent "blend wall," or the amount that can be easily blended into the fuel supply.

According to a May forecast from the U.S. Energy Information Administration, motor fuel demand is set to climb to about 143.5 billion gallons in 2018 from about 143 billion in 2017. Given that forecast, if the conventional renewable fuel quota were fulfilled entirely by ethanol, the fuel would represent 10.5 percent of total projected gasoline consumption. Most gasoline sold in the U.S. is E10, or 10 percent ethanol. Refiners can turn to other fuels, including renewable biodiesel, to help meet the target.

The American Petroleum Institute, which represents oil producers and refiners, had asked the EPA to set lower quotas that would reflect about 9.7 percent of projected gasoline demand; some refiners had pushed a lower 9.5 percent.

The ethanol industry counters that the government explicitly allowed vehicles built after 2001 to use

15 percent ethanol, and many vehicles can run on an 85 percent blend. Gasoline containing 15 percent ethanol is available in about 800 filling stations nationwide, according to Growth Energy, a coalition of biofuel producers.

Top EPA officials have been mulling changes to an earlier, internal proposal out of concerns that refiners will import ethanol from Brazil and biodiesel from Argentina to fulfill the quotas.

G-20 Ire On Paris Withdrawal Unlikely to Affect Trump Plans

Posted July 05, 2017, 11:07 A.M. ET

By Bryce Baschuk

Leaders of Group of 20 nations, outspoken in their opposition to President Donald Trump's withdrawal from the Paris climate accord, won't be able to do much about it at this week's summit in Hamburg, Germany, business representatives and an academic told Bloomberg BNA.

German Chancellor Angela Merkel promised that she would use her position as the host of the July 7-8 summit to defend the Paris climate agreement as a necessary tool to fend off the growing threats to the environment. G-20 nations make up about two-thirds of the world population.

Other world leaders—such as French President Emmanuel Macron, Japanese Prime Minister Shinzo Abe, and Chinese President Xi Jinping—are expected to back Merkel's call to support the accord.

But in the absence of new negotiations, the high-level statements should amount to little more than hot air, officials told Bloomberg BNA in recent phone interviews.

Agree to Disagree

"I don't believe that anyone wants to isolate the U.S. or gang up on the U.S.," said Gary Litman, the vice president for global initiatives at the U.S. Chamber of Commerce. "That won't help anyone."

Matthew Goodman, a senior advisor at the Washington, D.C. based Center for Strategic and International Studies, generally agreed.

"When this group last met in May for the G-7 summit they agreed to disagree," he said. "Then Trump withdrew from the Paris agreement."

"Maybe this issue doesn't become a debate at all," he said.

Rob Mulligan, a senior vice president at the Washington, D.C.-based United States Council for International Business, said the time may not be ripe for discussion on the issue.

"G-20 leaders have already had some exchanges on the issue of climate change," he said. "They are not at a point where any change can be discussed."

Fair Playing Field

When Trump announced America's withdrawal from the Paris agreement last month, he said it would hurt U.S. businesses and make it more difficult to compete with international rivals such as China and India.

Though both Xi and Indian Prime Minister Narendra Modi have reaffirmed their support for the deal, their countries were granted lengthy implementation timelines, financial aid, and other flexibilities in order to join the accord.

Gary Cohn, the director of Trump's National Economic Council, told reporters last week that the president wants to ensure that the climate accord offers a "level playing field" to all participants.

"We cannot be in a position where the United States is cutting and cutting emissions while other countries continue to grow until 2030," Cohn said during a June 29 press conference in Washington. "We're looking for fairness across the board in the agreement."

Environmental advocates pointed out that Trump's decision to withdraw from the Paris accord cannot technically go into effect until November 2020, at which point the issue is expected to be a key focus of the next American presidential election.

Irreversible, Non-Negotiable

Last week, Merkel said the Paris accord was not open to renegotiation and told members of the German parliament that Europe is "more determined than ever" to make the agreement a "success" following Trump's decision to withdraw.

"We will not wait until the last people in the world are finally convinced by the crushing weight of the scientific evidence of climate change," Merkel said in a June 29 speech to the German parliament. "In other words, the climate agreement is not reversible and it is non-negotiable."

Jacob Kirkegaard, a senior fellow with the Peterson Institute for International Economics, said the impasse could prevent any significant environmental outcomes at this year's G-20 summit—but that's not necessary a disaster.

"The G-20 is a latent organization—it is there in a big crisis to have all the players in the room," Kirkegaard told Bloomberg BNA. "But in the absence of an acute crisis, don't expect them to agree on everything."

EU Food Agency Re-Opens Risk Review of Bisphenol A

Posted July 05, 2017, 03:31 P.M. ET

By Stephen Gardner

European food regulators are taking the unusual step of calling for input ahead of a 2018 toxicity evaluation of the widely used chemical bisphenol A, which may lead to restrictions on food packaging such as can linings.

The European Food Safety Authority's (EFSA) senior toxicologist Anna Castoldi said in a statement June 30 the authority was staging a public consultation on the structure of the evaluation because bisphenol A had been "an issue of public interest for a very long time." It is the first time EFSA has carried out such a pre-evaluation consultation seeking comments on the parameters for its review.

Bisphenol A is produced in high volumes and used in applications including the manufacture of polycarbonate plastics and tin can linings. However, there has been a long-running dispute about its hazards, in particular whether or not it has hormone- or endocrine-disrupting properties.

Jasmin Bird, communications manager of the Polycarbonate/BPA Group within industry federation PlasticsEurope, told Bloomberg BNA July 4 that industry experts were "in the process of reading and digesting" the consultation's technical documentation, and declined to comment.

Evaluated in 2015

In an evaluation of bisphenol A finalized in 2015, EFSA found that uses of the substance—including in food packaging—posed no risk to consumers. However, EFSA still reduced the safe daily exposure level to bisphenol A from 50 micrograms per kilogram (mg/kg) of body weight to 4 mg/kg, and said it would carry out a new evaluation when new information on the risks of bisphenol A became available.

Castoldi said the 2018 evaluation could lead to a revised safe daily exposure level for bisphenol A. A lower daily exposure level could ultimately lead to restrictions of the use of bisphenol A in, for example, food contact materials. The EU has already limited bisphenol A in thermal paper used in cash register receipts.

In the EU bisphenol A is permitted in the manufacture of food contact materials, such as food storage containers, though it is prohibited in polycarbonate infant feeding bottles. The substance is manufactured in or imported into the EU in annual volumes of up to 10 million metric tons, according to European Chemicals Agency data.

Since the 2015 EFSA evaluation, bisphenol A has been classified as a "substance of very high concern" under the European Union's REACH chemicals law (Regulation No. 1907/2006 on the registration, evaluation and authorization of chemicals), on the basis of its reprotoxic and endocrine disrupting effects. Its classification as an endocrine disruptor means that it is assumed there is no safe level of exposure to the substance.

EFSA said its previous evaluation only considered studies of bisphenol A that were published up to December 2012. Among the new evidence that EFSA was waiting for before re-evaluating bisphenol A is a study being carried out by the U.S. National Toxicology Program, which should be finalized in late 2017.

EFSA said responses to the pre-evaluation consultation should cover the scope of the evaluation, the methodology to be used, and the information sources to be included.

Volvo Vaults to Volts, Planning to Pull Plug on Gasoline Engines

Posted July 05, 2017, 10:51 A.M. ET

By Elisabeth Behrmann, Niclas Rolander and Christoph Rauwald

As it turns out, news of the death of the internal combustion engine may not be very exaggerated after all.

Volvo Car Group said July 5 it expects to soon start phasing out vehicles powered solely by fossil

fuels, joining a parade of manufacturers in shifting toward electrics more quickly than most in the industry expected a few years back.

The automaker says it plans to offer only hybrid or full-electric motors on every new model launched in 2019 or later, including five electrics it expects in its lineup by 2021. Though the company will continue to produce full-combustion versions as it makes the small upgrades automakers introduce with each new model year, when a major revamp occurs (typically every seven years) it will no longer offer that option. That means that by about 2025 Volvo will make its last full-gasoline or diesel car—the first major manufacturer to make such a pledge.

"This announcement marks the end of the solely combustion engine-powered car," said Volvo Chief Executive Officer Hakan Samuelsson. "Volvo's brand will be strengthened by electrification."

Though electric cars have been around since the 1800s and have gotten a lot of attention in the past half-decade or so, they're still just a fraction of the overall market as drivers balk at high prices and limited driving ranges. Battery-powered autos made up about 1 percent of sales in the U.S., Europe and China last year.

Sales Driven by Government Prodding

And even those tepid sales figures are largely driven by government prodding. China, in an aggressive push to fight smog, plans to impose quotas for battery-powered cars that will effectively force manufacturers to sell electrics. In Europe, where regulators have relied on diesel to reduce pollution, stricter rules that take effect in 2020 will cut limits on carbon dioxide emissions by a third—a threshold that's almost impossible to meet without fully or partly electric engines.

In the U.S., though President Donald Trump has promised to scrap rules that would require automakers to almost double gas mileage, California is leading a push for even stricter standards. Its regulations will require about 15 percent of cars and trucks sold in 2025 to be zero-emission—meaning they'll almost certainly run on electricity. At least nine other states have embraced California's lead.

Consumer resistance is starting to ease as tighter regulation forces carmakers to lower costs, improve batteries, and come up with better designs. Goldman Sachs Group Inc. estimates about a quarter of cars sold globally by 2025 will be hybrid or electric.

Of course, Tesla Inc. aims to have a big piece of that. The California company started making its latest model this week—at about $35,000 its most affordable ride yet—as part of a plan to produce 500,000 cars in 2018 and 1 million annually by 2020.

Tesla is scaring traditional automakers into action. BMW says the electric iNext will replace the 7-Series as its flagship in 2021 and expects battery-powered cars to account for some 25 percent of its sales by 2025. Volkswagen, in an effort to overcome revelations that it cheated on emissions tests for millions of diesels, is accelerating its rollout of electrics. The Audi luxury brand will introduce its first all-electric model, an SUV, in 2018, followed by another two battery-powered vehicles by 2020. In 2019, VW's Porsche unit will introduce the all-electric Mission E. Then in 2020 the VW car brand will roll out the first of four electric cars it's planning.

Automakers understand that they must cut prices and improve driving range for consumers to really embrace the technology, and they're starting to deliver. GM late last year introduced the all-electric Chevrolet Bolt, with a range of 238 miles and a price tag of $38,000. And Volvo CEO Samuelsson said vehicles must have a range of at least 350 kilometers before they'll gain broad acceptance, a

target he says his cars will meet.

A big hurdle will be the cost of developing electric technology. Daimler AG has budgeted 10 billion euros to develop 10 new electric models by 2022. BMW's profit margins are at their lowest since 2010 due to increased spending on electrics.

The shift to greener cars will squeeze profits across the industry for years to come as manufacturers develop both electric and traditional combustion engines before battery-powered vehicles become economically viable. That turning point to profitability is likely to come around 2020, according to VW brand chief Herbert Diess.

"For us and for many of our competitors," Diess says, "this time will be an enormous challenge."

Volvo, owned by Chinese billionaire Li Shufu, understands those cost considerations but Samuelsson says he has the financing to make the shift. While the uncertain forecast for prices of batteries makes it difficult to predict the cost of the endeavor, he says he's confident the move will benefit the brand.

"We'll get more attractive cars," Samuelsson said. "This improves our competitive situation. It also goes back to Volvo's brand values of protecting what's important."

Like its recently deceased Swedish cousin Saab, Volvo has built a loyal following with its boxy, no-nonsense design, a reputation for reliability, and cutting-edge safety features (Volvo invented the three-point seat belt in the 1950s.) Volvo has enjoyed a revival in recent years with a focus on SUVs like the XC60—since 2009, its bestselling model.

Volvo in April said its first electric vehicle will be a Chinese-made compact expected to hit the market in 2019. The model, to be sold globally, will be based on the basic design of the company's XC40 compact SUV.

"We want to be a leading brand in terms of responsibility, safety and sustainability," Samuelsson said. "So we think this suits us perfectly."

New Zealand Exempts Road Fees for Heavy Electric Vehicles

Posted July 05, 2017, 12:53 P.M. ET

By Murray Griffin

New Zealand is exempting heavy electric vehicles from road use charges, a move that could save some truck drivers thousands of dollars a year.

A measure passed by Parliament June 27, which became law the next day, added large electric delivery trucks, buses and vans to the incentives already enjoyed by the country's few drivers of electric passenger cars. It also grants all electric vehicles free access to high-occupancy lanes and bus lanes.

The Ministry of Transport estimates annual savings at NZ$2,480 ($1,806) for a medium-sized two-axle delivery truck, NZ$5,560 ($4,049) for a two-axle waste truck and NZ$6,140 ($4,472) for a

trolley bus.

The value of the existing road user charge exemption for electric passenger cars is about NZ$558 ($406) a year.

'Standing-Still Legislation'

Heavy electric vehicles, defined as any vehicle with a maximum gross weight of more than 3.5 metric tons, will be exempt from road charges until they comprise 2 percent of the heavy vehicle fleet. This would match arrangements already in place for light electric vehicles (up to 3.5 metric tons), which exempt them from road user charges until they make up 2 percent of the light vehicle fleet.

While New Zealand has about 4 million cars and trucks on its roads, fewer than 4,000 are electric vehicles, according to government figures. The country has set a goal of reaching 64,000 electric vehicles by 2021. In 2016, it had only 60 registered heavy electric vehicles, 57 of them electric trolley buses that operate in Wellington, the capital.

The ruling National Party introduced the measure, "an important part of the government's work to improve the efficiency of our energy use and to meet our climate change commitments," minister for energy and resources Judith Collins told Parliament.

But some lawmakers said the changes don't do enough to encourage electric vehicle use.

"This is standing-still legislation," said Labor member of Parliament Megan Woods. "It is not putting in place the kind of transformational change that will see the uptake of EVs happen faster," Woods told Parliament.

G20's Financing of Fossil Fuels Outweighs Renewables, Study Says

Posted July 05, 2017, 9:19 A.M. ET

By Chisaki Watanabe

Fossil fuels received four times more than clean energy in public financing from Group of 20 member countries, according to a report by environmental groups that urged more financing be directed to renewables to address climate change.

Financing for oil, gas and coal projects from G20 public finance institutions and multilateral development banks averaged $71.8 billion per year between 2013 and 2015, according to a report released by Oil Change International, Friends of the Earth U.S., the Sierra Club and WWF European Policy Office. That compares with $18.7 billion annually provided to support clean energy.

The report came after U.S. President Donald Trump vowed to usher in an era of "energy dominance" with plans such as lifting barriers to finance overseas coal energy plants and pulling the U.S. out of the Paris climate change accord. Germany will host world leaders at a G-20 conference in Hamburg the week of July 3-7.

"Our research shows that the G20 still hasn't put its money where its mouth is when it comes to the clean-energy transition," Alex Doukas, senior campaigner at Oil Change International and one of the report's authors, said in a statement. "If other G20 governments are serious about standing up to

Trump's climate denial and meeting their commitments under the Paris Agreement, they need to stop propping up the outdated fossil fuel industry with public money."

Of the $71.8 billion in public finance, $13.5 billion went to exploration for new reserves of oil, gas and coal, according to the report. Japan provided the most exploration finance at $3.4 billion a year, followed by South Korea's $1.6 billion. The U.S. and China provided $1.4 billion each.

The groups analyzed public support for energy projects from G20 public finance institutions such as overseas development aid agencies and export credit agencies, as well as multilateral development banks such as the World Bank.

"If G20 leaders are serious about meeting climate goals, they must undertake rapid and ambitious efforts to shift public finance from 'brown' to 'green' activities," authors of the report said. "This is a significant step they can take even without the cooperation of Donald Trump."

Other findings by the groups included:

• Japan, China, and South Korea were the top providers of public financing among G20 for fossil fuels followed by the U.S. and Germany.

• Top five recipients of public finance for coal included Vietnam, Russia and Australia.

• Brazil, the U.S. and Saudi Arabia were top recipients of public finance for oil and gas.

Germany's Russian Gas Fix Raises Alarm in Merkel's Backyard

Posted July 05, 2017, 8:52 A.M. ET

By Weixin Zha and Anna Shiryaevskaya

Hidden by pine forests near the deserted site of what was once East Germany's biggest nuclear reactor, two shiny pipelines emerge from the Baltic Sea to mark the spot where Chancellor Angela Merkel is trying to secure the country's energy future.

Not far from the Hanseatic town of Greifswald—an area Merkel represents in parliament—the chancellor wants a $10 billion pipeline expansion built to increase the amount of Russian natural gas imported from Siberia, more than 3,000 kilometers (1,864 miles) away.

The project, led by Russia's state-run Gazprom PJSC, is intended to bolster German confidence that it has enough gas to underpin an unprecedented transition from the coal and nuclear plants, which are being closed, to a future dominated by renewable energy.

But the plan has opponents, both close to home and further afield.

People living in the sparsely populated area have filed almost 160 objections. Local approval is still pending and the site also requires removal of two shipwrecks sunk by the Swedish navy in the 18th century. European allies have also objected—worried that the project will deepen Europe's reliance on supplies from an increasingly antagonistic Russia—and U.S. lawmakers have proposed stiffer sanctions on energy companies that do business with Russia.

"There are not many other places apart from Russia where Germany can get a lot of gas quickly," said Jonathan Stern, chairman and senior research fellow at the Natural Gas Research Programme of the Oxford Institute for Energy Studies.

Already Europe's biggest gas user, Germany gets about 40 percent of what it consumes from Russia, the world's largest exporter, according to industry consultant Wood Mackenzie Ltd. in London. That dependence is only going to increase by 2025 to more than 50 percent, especially with output from the Netherlands, Germany's western neighbor, set to drop in coming years.

The Gazprom project, known as Nord Stream 2, also will allow for deliveries elsewhere in Europe, making Germany an even more important hub for distributions across the continent. Russia already supplies more than 20 countries with gas used to run power plants, heat homes and make chemicals.

Doubling Shipments

The existing link was commissioned in 2011 and runs for 1,224 kilometers under the Baltic Sea from Vyborg, Russia, to Lubmin in Germany. It is able to carry 55 billion cubic meters of gas, or two-thirds of German gas demand, and the expansion will double that.

"Nord Stream 2 isn't only about meeting additional demand, it's also about adjusting gas supplies towards the most cost-efficient routes," Gergely Molnar, an analyst at Wood Mackenzie in London, said by phone.

Transporting gas through Nord Stream to Germany is about 40 percent cheaper than through land-based pipes via Ukraine, according to Molnar. Russian gas at the German border cost $5.07 a million British thermal units in May, up 28 percent from a 12-year low in September but 45 percent below its 10-year average, according to International Monetary Fund data.

Germany, the U.K., France, Belgium and the Netherlands will likely benefit from lower prices, according to Brussels-based think tank Bruegel. Gazprom would also avoid transit fees paid to use pipelines in Ukraine and Poland, Bruegel said. The company plans to reduce flows via Ukraine after 2019.

Germany's approval procedures mean that infrastructure projects can be delayed by local opposition. A hearing is scheduled to start July 17 in Stralsund, Germany, according to the Ministry of Energy and Infrastructure in the state of Mecklenburg-Vorpommern.

Meanwhile, time is running out for Merkel to help Germany meet its 2020 climate goals. Despite the transition known as the Energiewende, the country is at risk of missing its target to reduce carbon emissions by 40 percent from 1990 levels.

After federal elections in September, the new government may have to present proposals for closing down power plants that run on coal, which still provides about 40 percent of the nation's electricity generation. Merkel's ruling Christian Democratic Union foresees a "mid- to long-term" exit from lignite and coal, according to their 76-page manifesto published July 3.

Nuclear Exit

Gas may provide a fifth of Germany's power in five years, almost double current levels, according to HSBC Holdings Ltd.

Germany's journey toward a renewable energy system began almost two decades ago. The policy shift intensified after Japan's Fukushima nuclear disaster in 2011, which led to Merkel's decision to exit atomic energy by 2022.

"In the long term, Europe needs new volumes of imported gas from reliable suppliers, and the Nord Stream project will become that lifebuoy," Gazprom Deputy Chief Executive Officer Alexander Medvedev said in Berlin on June 15.

'Additional Option'

Nord Stream 2 would "definitely be an additional option" to increase imports, according to Stefan Rolle, head of gas and oil markets and crisis prevention at the German Economy Ministry. "Gas is only a transition technology" to meet the nation's climate goals, he said.

Gas demand for power production may peak in 2025 before being replaced with wind and solar, according to Wood Mackenzie. The country aims to produce as much as 80 percent of its electricity from renewable sources by 2050.

Germany's gas network is already well connected, with pipelines linking it to Norway and to liquefied natural gas terminals in Belgium and the Netherlands.

"Current capacities are sufficient even if gas-fired power plants will run more," said Claudia Kemfert, head of the energy unit at the DIW economic institute, a Berlin-based research group. "Nord Stream 2 won't be needed."

Undeterred, Gazprom is forging ahead. About 37,000 12-meter-long pipes are stored at an industrial site bigger than 20 soccer pitches on the island of Ruegen, waiting to be coated with concrete long before being laid on the seabed at an average depth of 50 meters.

While Merkel last month condemned a bill on expanded Russian sanctions approved in the U.S. Senate, she's also one of the harshest critics of Russia. The chancellor, who helped negotiate the Minsk peace agreement aimed at ending violence in Ukraine, has pushed for sanctions to be maintained, arguing that measures can only be dropped once Moscow adheres to the terms of the deal.

"We need gas supplies when coal isn't used anymore," said Klaus-Peter Trapp, a 57 year-old cabinet maker from Greifswald. "This can have consequences if Russia and Germany don't get along well anymore."

—With assistance from Kelly Gilblom, Elena Mazneva and Brian Parkin.

World's Costliest Gas Clouding China's Quest for Bluer Skies

Posted July 05, 2017, 8:46 A.M. ET

By Bloomberg News

China has promised to make its skies blue again, but having some of the world's most-expensive

natural gas isn't helping.

The biggest energy consumer on earth wants to use more of the cleaner-burning fuel in place of the coal that's choking its skies and causing pollution far exceeding the World Health Organization's daily recommended limit. China has the ability to increase imports and is seeking to raise domestic production, but high prices risk suppressing demand growth and jeopardizing the country's ambitious targets.

The challenge is that producers, importers and distributors in China need the government-controlled prices to be high enough to make money. By cutting them too much, the state risks hurting their margins, threatening investment in future production, and the country's energy security. But be too generous to the industry, and the nation's health is at stake.

"It's a balancing act for the government that requires on one side stimulating gas demand to increase the percentage of clean fuels," said Miaoru Huang, a Beijing-based energy analyst for Wood Mackenzie Ltd. "On the other hand, it needs to ensure reasonable returns for upstream players and transmission and distribution companies that are needed to ensure sustained investment so China can maintain its growth in domestic gas production."

The Chinese government has set a goal of getting as much as 10 percent of its energy from gas by 2020 and 15 percent by 2030, up from 6 percent in 2015. To achieve this, demand will have to grow by about 15 percent a year through the rest of the decade, according to UBS Group AG.

After consumption growth slowed to well below that pace for the past few years, it is once again booming, increasing at a rate of 13.2 percent so far this year. These graphics tell the story of how that's happening and what the future may hold.

The world's sixth-biggest producer of gas, China gets about 64 percent of what it needs domestically, according to Bloomberg calculations based on government data. It imports the rest by pipelines from Central Asia and Myanmar, as well as on seaborne tankers as liquefied natural gas.

The Ordos Basin in Shaanxi Province is the largest gas-producing area in the country, according to Sino Gas & Energy Holdings Ltd. It's where China drilled its first oil well more than 100 years ago. The nation's experience with petroleum dates back 900 years, when the scientist Shen Kuo found near the Yan River oil seeping out of the rocks, which he noted could be used for lighting, according to China National Petroleum Corp.

In the modern era, the National Development and Reform Commission, the country's top economic planner, traditionally set gas prices at the well, making sure they were high enough to cover drilling costs and a small profit for the companies.

Even as production exploded over the last decade, China couldn't keep up with booming demand, so the nation's big three energy companies—CNPC, China Petrochemical Corp., known as Sinopec, and China National Offshore Oil Corp.—became gas importers. CNPC built a pipeline connecting gas fields in Turkmenistan, Kazakhstan and Uzbekistan to western China, while a link from Myanmar started in 2013. CNPC will start receiving gas from Russia on a Siberian pipeline in 2019. The country also has more than a dozen terminals on its eastern and southern coasts to receive LNG cargoes.

But buying the gas overseas proved costly. The companies inked supply deals at prices linked to the cost of oil, so when crude rose into the $100-a-barrel range, the cost of importing ballooned to levels higher than the energy giants were allowed to sell domestically. PetroChina, the country's

largest listed energy firm, has lost money on gas imports every year going back to at least 2013, according to company filings.

The NDRC responded in 2013 and 2014 by raising prices to a level that was high enough to encourage production and help cover the cost of imports. But that increase had an immediate impact on demand, snapping the run of double-digit percentage growth every year from 2003 to 2013.

In 2015, the government cut wholesale prices. By December 2016, gas was cheaper on a wholesale basis than other fuel sources such as fuel oil or propane, a liquefied petroleum gas typically used for heating and cooking, according to UBS analysts including Ken Liu. However, the final cost to industrial users was still higher because of large margins for distribution companies.

So now the government is taking a knife to the middlemen companies that transport the gas from the state-run giants and sell it to individual users, firms like ENN Energy Holdings Ltd., China Gas Holdings Ltd. and China Resources Gas Group Ltd. The NDRC last month capped investment returns for natural gas distributors at 7 percent.

In January, China's latest five-year plan called for using gas instead of coal in industrial boilers throughout four major urban areas: the greater Beijing region, northeast China, the Yangtze River Delta around Shanghai and the Pearl River Delta in Guangdong province. Local governments are supporting the efforts with measures including subsidized gas connections and boiler replacements, as well as price caps, according to Morgan Stanley.

The NDRC issued guidelines July 4 aimed at increasing use of the fuel, including encouraging the participation by private companies in overseas gas investments, expanding LNG import terminals and expanding underground gas storage capacity. Shares of gas companies seen benefiting from rising demand—ENN, China Gas and China Resources Gas—all gained in Hong Kong on July 5.

Provincial governments don't have the budget to keep subsidies going forever, though, so to be able to sustain rapid consumption growth the government will have to find a way to bring gas prices down more, said Michal Meidan, an analyst with Energy Aspects Ltd. in London. Wholesale prices for the fuel in China were the most-expensive among major users in the world last year, according to the International Gas Union.

While lowering prices further may spur more demand, China runs the risk of suppressing production and imports, Meidan said.

Output goals are already going to be difficult to meet because of high costs and difficult geology, according to Bloomberg Intelligence. The government expects most gas production growth to come from unconventional resources, such as shale and coal-bed methane, with production targeted to reach as much as 100 billion cubic meters a year by 2030.

At stake in all of this is the health of the world's most populous nation. Poor air quality has been a source of social unrest and China had more pollution-related deaths than any other country in 2012, according to World Health Organization data.

Coal still accounts for about two thirds of China's total energy consumption. Natural gas produces about half the carbon dioxide and just a fraction of the sulfur dioxides and particulates of coal when it's burned, according to the U.S. Energy Information Administration.

Premier Li Keqiang in March pledged to make China's skies blue again, three years after the

country declared a “war on pollution.”

Progress has been steady but slow. Last year in Beijing, average concentrations of PM2.5 -- small particles that pose the greatest risk to human health -- fell almost 10 percent, the biggest annual decrease in the past four years.

That trend is reversing this year as power generation and steel output grow, according to a research note from a Greenpeace analyst in late May, making air quality goals for this year seem increasingly unattainable.

—With assistance from Adrian Leung and Yue Qiu.

China Seen Scaling Back Carbon Market After Trump’s Paris Move

Posted July 05, 2017, 7:57 A.M. ET

By Mathew Carr and Aibing Guo

China may remove industries including steel from the national carbon market it plans to start this year because President Donald Trump wants to pull the U.S. out of the Paris climate deal.

The carbon market, which was to have been the world’s largest, may cover power generation, cement, aluminum and possibly aviation, according to Junjie Zhang, the director of the environmental research program at Duke Kunshan University in Jiangsu, China. Iron and steel, petrochemicals, chemicals and paper making may not initially be included in the program, Zhang said by phone.

“China’s step back in carbon markets is related to the U.S. determination” to pull out of the 2015 Paris agreement covering the period after 2020, said Zhang.

“The diplomatic value now is negative between the U.S. and China in terms of climate collaboration—negative means the Trump administration does not believe in climate change,” so there’s no reason for China to continue collaboration.

Global emissions trends indicate the world is headed for a temperature rise of about 4 degrees Celsius (7.2 Fahrenheit) and will miss the target of holding the increase to “well below” 2 degrees established in the Paris deal, according to a report published July 3 by Climate Transparency, an international research group. China’s policies are rated highly by experts in the report because the country is decommissioning coal-power plants and aims to increase its renewable energy capacity by 38 percent above 2015 levels by 2020.

China’s National Development and Reform Commission, which is in charge of carbon market planning, didn’t immediately respond to faxed questions seeking comment. The 21st Century Business Herald reported in May that the steel and chemical industries sectors would be excluded at the launch of China’s carbon market.

Even if it scales back its carbon market, China will continue to enact policies seeking to protect the climate, Zhang said. Setting up the carbon market is very complicated, he said.

"China's carbon market is based on not just the diplomatic value of U.S.-China collaboration, but also because of an internal incentive for low-carbon development," he said. "No sector wants to be covered by the carbon market" because of the extra regulation that entails.

China's market was to cover more than 5 percent of global emissions and would have been larger than the European Union program, currently the globe's biggest, the World Bank estimated in a May report.