Europe must tax brown and subsidise green

After years of global climate-policy leadership, the European Union is looking warily at the United States' sudden embrace of ambitious clean-energy subsidies. Ultimately, America's entry into the clean-energy race is good news for both the planet and Europe. But will US generosity toward its own companies under the recent Inflation Reduction Act (IRA) hollow out Europe's industrial base even further? Will dirty industries continue moving east and south as clean ones move west across the Atlantic?

Europe must prevent this outcome. But how should EU leaders proceed?

Unlike in the US, European policymakers have long heeded the economists who suggest that carbon pricing is the best strategy for tackling climate change. That means making dirty energy more expensive, in line with the external costs that it imposes on society. Though the EU's Emissions Trading System

is far from perfect, it now prices roughly half of Europe's carbon pollution at around €100 ($109) per tonne; and several national governments in the bloc have introduced their own carbon taxes. None of this is sufficient on its own. But Europe's carbon-pricing policies are clearly much better than America's incomplete state-level patchwork and its complete lack of a federal carbon price.

Now, US policymakers have seemingly taken the easy way out, subsidising clean energy instead of pricing dirty energy. But while giving handouts is politically easier than imposing taxes, there is in fact a strong economic argument for subsidies in this case. Yes, Economics 101 calls for pricing negative externalities, but Economics 102 calls for subsidising positive externalities that arise from learning by doing. The argument is simple: installing the thousandth, and especially the millionth, solar panel will be much faster and cheaper than installing the first, owing to all the efficiencies and improvements that have been developed along the way.

The same logic extends to research and development more broadly. Innovators deciding on how much to invest in R&D will generally spend less money than is socially optimal, because their decisions typically do not include the possibility that the result will create shoulders for others to stand on. That, too, calls for subsidies.

Policymakers from California to Germany have embraced the learning-by-doing logic with solar subsidy schemes that start high in the first year and decrease almost immediately thereafter. Germany's feed-in tariffs (payments to solar-energy producers above the market price) started as high as €0.40 per kilowatt-hour for small rooftop solar units, but have since been scaled back to under €0.15. That tapering is appropriate, given how cheap solar power has become in recent years. It also demonstrates that the subsidies worked.

While solar feed-in tariffs have decreased, EU carbon prices have risen some tenfold, from as low as €10 per tonne. It is here that the EU's climate policy shines. European

policymakers recognise that carbon pricing is crucial, and they have acted on that insight.

But neither carbon pricing nor subsidisation is enough on its own. Just as the US ought to take a page from Europe's book on carbon pricing, Europe should follow the US in pursuing green subsidies. Early economic analyses of the IRA calculate that the legislation's provisions, like its various tax credits for clean energy, create an implicit carbon price of around $12 per tonne – scarcely one-tenth of Europe's explicit one.

Whatever reasons Europe had for avoiding green subsidies in the past, European competitiveness and energy security demand that they be reconsidered in the context of the IRA. China currently produces the vast majority of the world's clean-energy technologies: including three-quarters of all solar panels and batteries sold globally, well over half of all wind turbines, and around half of all electric vehicles. In some clean technologies, like heat pumps, Europe is behind not only China but also North America, which produce 39% and 29%, respectively, compared to Europe's 16% share.

This import dependency translates into significant geopolitical vulnerabilities. Relying on China for solar panels may be less dangerous than depending on Russia for gas; but that hardly makes it prudent. The EU urgently needs to create new incentives for domestic manufacturers and invest in a more resilient clean-energy supply chain.

The IRA should be welcomed around the world. Of course, its immediate effect will be to boost US clean-energy investments, and it will inevitably rankle some foreign manufacturers and governments as it generates headlines around the world about companies being lured to the US. But it is important to remember that just as economic growth is not a zero-sum game, neither is clean growth.

In a recent paper, Costas Arkolakis of Yale University and my Columbia Business School colleague Conor Walsh show that the IRA's subsidies will pay for themselves through increased global GDP, owing to the positive spillovers from learning-by-doing dynamics. The implication is that the EU and the rest of

the world will ultimately benefit from the US subsidies. And Arkolakis and Walsh's analysis does not even account for the positive welfare effects of helping to address climate change. Add those in, and US clean-energy subsidies (or future European ones) look like a win-win-win.

The massive costs of unchecked climate change are already mounting and should be sufficient to show that much more needs to be done on both sides of the Atlantic, as well as around the world. For their part, US policymakers should recognise that their long-awaited clean-energy push would be strengthened enormously by additional measures to make polluters pay for the costs of their pollution.

The EU, meanwhile, must take the arguably easier step of ramping up its own clean-energy subsidies. It can and must afford to do so. The result will be a race to the top, with the global economy and the planet as clear winners – a truly rare occurrence in the annals of global economic competition. – Project Syndicate

- *Gernot Wagner is a climate economist at Columbia Business School.*

Qatar's North Field drives global LNG assets deal value in 2022: GECF

Deal value of liquefied natural gas assets in 2022 climbed 15% y-o-y to reach $23bn, driven by Qatar’s LNG development, says Doha-based Gas Exporting Countries Forum.

The deal value of liquefied natural gas assets in 2022 climbed 15% year-on-year (y-o-y) to reach $23bn, driven by Qatar’s LNG development, Doha-based Gas Exporting Countries Forum has said in a report.

Qatar’s North Field expansion project accounted for 43% of the growth in LNG deal value, GECF said in its ‘Annual Gas Market Report 2023’.

According to GECF, merger and acquisition (M&A) activity in the upstream sector declined to $154bn in 2022, 21% lower y-o-y, and below pre-pandemic levels.

This decline was essentially driven by the continued impact of Covid-related lockdowns particularly in China, high oil and gas price volatility and escalating geopolitical tensions in Europe. Most regions experienced a sharp decline except for the Middle East and Africa.

In the Middle East, M&A activity increased by 46% y-o-y, while in Africa the deal value more than tripled compared to the

previous year to reach a record $24bn.
North America accounted for almost 50% of asset and corporate acquisitions in 2022 amounting to $72bn, with private companies responsible for a large share of divestment as they opted to maximise their assets amidst the high price environment.
Europe and Africa accounted for 17% and 16% of M&A activity respectively, where high commodity prices increased the value of traded producing resources and spurred buying and selling activity.
In addition, a significant increase in demand for gas and LNG assets was observed in the midst of heightened concerns about energy security.
In 2023, upstream M&A activity is likely to be remain around 2022 levels or increase.
Furthermore, global energy security concerns are likely to drive investment for gas and LNG assets, and more so, increase acquisitions by European majors in Africa and the
Middle East to secure production assets.
Additionally, net-zero emission targets may also support demand for gas and LNG assets as the cleanest burning fossil fuel.
According to GECF, oil and gas investment has increased by 7% y-o-y to reach $718bn, partly due to higher petroleum services and EPC costs.
In 2023, oil and gas investment is expected to rise further, on the back of greater investment in the upstream industry and LNG import terminals.
However, several looming uncertainties, including a slowdown in global economic growth, tight financial conditions, inflation, and high energy price volatility may deter investment, GECF noted.

In defence of nature-based carbon markets

Voluntary markets for carbon offsets have recently come under fire, with critics questioning the efficacy of contracts that aim to reduce atmospheric carbon dioxide relative to what would have happened in the contract's absence. The biggest concerns are about "nature-based" projects involving various land-use changes – such as protecting forests, planting new ones (afforestation), and so forth.

But these instruments' imperfections are no secret. For well over two decades, ecologists and foresters have been working to develop more sophisticated methods to satisfy economists' faith in market instruments, and they have made good progress. Though offset schemes are still riddled with complexity, there is no question that they pay for something that matters.

Imagine seeing what the atmosphere sees. The Intergovernmental Panel on Climate Change's Sixth Assessment Report provides an outline of the planet's carbon cycle, which makes evident the

fundamental role of plants' conversion of CO2 into cellulose and back on a massive scale. Terrestrial photosynthesis alone draws down 113bn tonnes of carbon every year. By comparison, humanity added about 11bn tonnes of carbon to the atmosphere last year.

The problem, of course, is that humans' cumulative contributions go in only one direction, whereas the carbon captured by vegetation is normally balanced by an equal, opposite flow from plant respiration and degradation. By interfering with the climate system, we have thrown this balance off, adding a net flow of about 5.9bn tonnes to the landscape and the ocean every year. In other words, the planet is drawing down only half of what we inject into the atmosphere.

Even a relatively small perturbation in this vast natural cycle can reach an enormous scale. That is why nature is such an attractive climate-mitigation option. Suppose we succeed in eliminating fossil-fuel combustion. Keeping global average temperatures within 1.5C or 2C of pre-industrial levels will still require substantial carbon removal. Estimates vary, but they are on the order of 200-300bn tonnes removed by plants before 2100.

Nor will the story end there. The atmosphere contains about 870bn tonnes of carbon in the form of CO2 (one-third of which has been added since industrialisation), and the carbon cycle connects that atmospheric stock to vast reservoirs. The largest is the ocean, which holds 900bn tonnes at the surface and another 37tn tonnes deeper below. Terrestrial vegetation and soils also hold about 2.15tn tonnes, and permafrost contains another 1.2tn. As far as the atmosphere is concerned, losses from any of these reservoirs could easily exceed the carbon we burn (from the 930bn tonnes that are sequestered in fossil fuels).

Far from being a secondary concern, managing the stocks and flows of carbon through the planet's ecosystems is essential to keeping the entire Earth system in balance. But to carry out that task, we will need to think differently about the

landscape. Landscapes and seascapes are not just the backdrop to our life. They are public infrastructure, and like all infrastructure, they must be paid for and maintained.

Since the 19th century, however, we have known that paying for infrastructure by rewarding its marginal benefit (as offsets do for nature-based interventions) almost never covers the total cost. Because public-utility infrastructure like a highway or an airport tends not to command a high enough marginal value, taxation must cover the rest. Whom to tax then becomes the most important question.

To illustrate the point, consider Brazil, whose ecosystems contain some 60bn tonnes of carbon in above-ground biomass. One way to estimate how much this stock is worth is to assume that we value carbon at a given price, say, $50 per tonne (halfway between the price in the regulated European market and nature-based offsets in voluntary markets). In this scenario, Brazil is home to ecosystems worth $10tn, which is over six times the country's GDP and far greater than the value of its 13bn barrels of oil reserves.

Now, how much should the world pay Brazil to keep that forest in trust for everyone? Assuming a 2% fee on the value of the assets (a reasonable rate for most asset managers), the country ought to receive $200bn per year. On those terms, Brazil would almost certainly put a stop to deforestation in the Amazon.

But here we run into a sad truth. There is simply no evidence that the international community has any appetite to pay such sums. In 2022, total overseas direct assistance amounted to just $186bn. For years, rich countries have failed to honour a 2009 pledge of mobilising $100bn per year to help developing countries adapt to climate change.

By thinking of natural assets not as infrastructure but as service producers, we end up relying on the voluntary payments companies make at the margin in exchange for "offsetting" some other reduction that they cannot or will not carry out. But, for all this mechanism's shortcomings, at least it directs some money – albeit a drop in the ocean – toward carbon-

landscape management.
Of course, additional scrutiny of offsets is welcome for driving improvements. But it would be a fatal mistake to conclude that protecting forests or augmenting Earth's carbon sink is any less urgent than reducing fossil-fuel emissions. Nature-based offsets traded in voluntary carbon markets should be seen as merely a first step. In the end, we will need to do "all of the above": end fossil-fuel combustion, maintain ecosystems, and augment nature's capacity to draw down carbon, regardless of whether we can prove that such reductions would not have happened anyway.
The atmosphere does not care about our motivations, counterfactuals, or moral hazards. All it sees is carbon flowing in and out. Ecosystems store carbon and draw it from the atmosphere at scales that matter. All of us – taxpayers, consumers, and companies – must pay for this critical public good. – Project Syndicate

- *Giulio Boccaletti, an honorary research associate at the University of Oxford's Smith School of Enterprise and the Environment, is the author, most recently, of* Water: A Biography *(Vintage, 2022).*

World Gas Supply Shifts From Shortage to Glut With Demand Muted

The world is becoming awash with natural gas, pushing prices lower and creating an overabundance of the fuel in both Europe and Asia – at least for the next few weeks.

The trend has been a rare sight over the past year since the war in Ukraine upended energy markets and Europe rushed to secure as many alternative supply sources as possible.

Now, inventories are filling up from South Korea to Spain, a result of mostly mild winter weather and efforts to reduce consumption. Tankers filled with liquefied natural gas – a stopgap in replacing lost Russian pipeline flows – now often struggle to find a home, spending weeks idling at sea.

Europe is Filling It’s Gas Storage Weeks Early

Gas storage reached current levels 11 weeks earlier compared to 2021

Source: Gas Infrastructure Europe

Demand for gas typically slides as the heating season ends, before hotter weather lifts cooling needs later in the summer. The fuel then mainly goes into storage sites to prepare for the next season, but this year, refilling efforts in Europe may be completed as early as late August, Morgan Stanley said.

“There does appear to be a brief gas glut that should sustain pressure on LNG prices in the next few weeks, potentially nudging benchmarks slightly lower,” said Talon Custer, a Bloomberg Intelligence energy analyst.

While gas prices in Europe and Asia have plummeted from last year’s highs, they’re still well above the average of the last ten years, signaling possible concern that the current glut could disappear. Custer says prices “may be close to a floor” as cheaper gas costs could spur additional demand.

All eyes are on the summer weather, as any extreme heat and droughts could boost consumption. By the beginning of the third quarter, importers will start to prepare for the winter, heating up competition for LNG cargoes, Custer said.

But for now, the glut is spreading.

From Spain to China

In Spain, home to the most LNG terminals in Europe, gas storage is already 85% full, meaning the nation’s market could quickly turn to overcapacity and weigh on spot prices, RBC Capital Markets said.

In Finland, LNG import slots for the summer period were reduced to 10 from 14, in part due to an expected reduction in demand. Europe rapidly installed mobile LNG import terminals as it cut dependency on Russian pipeline gas, and more will be added this year and next.

Meanwhile, global LNG exports rebounded in March to an all-time high due in part to a recovery in US production. The

additional supply is contributing to lower prices as traders struggle to find a home for shipments.

Global LNG Exports Hit Record High

More supply from the US and Australia help to ease crisis

Source: Ship-tracking data compiled by Bloomberg

The UK’s exports of gas to the continent are surging as the nation lacks large storage sites, and LNG keeps flowing at record rates for the time of the year. In addition, China saw record re-exports of LNG amid a slow recovery after pandemic restrictions were lifted, and some vessels are diverting from another major LNG importer, South Korea. Japan, a big buyer, is also offering to sell shipments to stave off an oversupply at home.

In South America, demand remains weak until Argentina deploys its second floating import terminal in May, in time for colder weather in the Southern Hemisphere, said Leo Kabouche, an analyst at Energy Aspects Ltd.

Still, planned annual maintenance at gas facilities from late April through the summer could put a lid on excessive supply. Other risks remain, too, from further cuts to Russian deliveries or unexpected outages. Global LNG supply is largely expected to remain limited for another two years.

That’s reflected in forward prices, which are seen higher in the coming months and in particular in the winter, and remain elevated through the start of 2025.

“For 2023, the European gas balance is much more fragile” than last year, the French Institute of International Relations said in a note last week. “Any slight disruptions in supplies can have major impacts.”

– With assistance by Elena Mazneva and Francois De Beaupuy

Exxon boss' pay rose 52 per cent in 2022 – the highest among oil peers

US oil bosses generally collected huge paychecks last year on the back of high energy prices and record profits, with Exxon Mobil Corp's chief executive winning a 52 per cent increase.

The largest U.S. oil company on Thursday disclosed chief executive Darren Woods was paid $35.9m last year.

Oil company workers did not see the same level of increases with median annual compensation for workers declining at several big energy companies.

The median pay for an Exxon worker fell nine per cent last year to $171,582 while Chevron’s median worker pay dropped 12 per cent, to $161,488, filings showed.

The two largest US oil majors posted record profits in 2022 on high energy prices and costs cuts measures including payroll reductions. Exxon posted the most among Western oil majors, $56bn.

Chevron’s profit more than doubled in 2022 to a record $36.5bn.

Exxon’s chief received the highest percentage increase among peers with Chevron chief executive Michael Wirth receiving a four per cent increase.

Occidental Petroleum’s chief executive Vicki Hollub’s pay rose 35 per cent while ConocoPhillips chief executive Ryan Lance’s pay fell 16 per cent, all compared to their prior year.

The median annual pay for Occidental workers rose 19 per cent last year to $187,168 while at Conoco it fell one per cent to $177,533 according to their proxy filings.

Under a new calculation disclosure required by the SEC on potential gains by executives on unvested stock awards, Woods’ pay was $89.7m in 2022, a securities filing showed.

The figure provides more transparency on compensation given by companies in equity, according to shareholders advocacy group As We Sow.

But it is not the best reflection of a compensation as the total value cashed out by executives could only be known when options are exercised or stock are sold, the group says.

Under the same metric, Woods lost more than $7m in 2020.

Qatarenergy Selects Sinopec As NFE Expansion Partner

(MENAFN– Gulf Times) QatarEnergy has announced the signing of a“definitive” partnership agreement with China Petrochemical Corporation (Sinopec) for the North Field East (NFE) expansion project, the largest project in the history of the LNG industry.

The agreement was signed by HE the Minister of State for Energy Affairs, Saad Sherida al-Kaabi, also the President and CEO of QatarEnergy, and Dr. MA Yong-sheng, chairman, Sinopec at a ceremony held at QatarEnergy’s headquarters and attended by senior executives from both companies Wednesday.

The agreement marks the entry of Sinopec as a shareholder in one of the NFE joint venture companies that own the NFE project, one of the most critical projects in the global LNG industry.

Pursuant to the terms of the agreement, QatarEnergy will transfer to Sinopec a 5% interest in the equivalent of one NFE train with a capacity of 8 million tons per annum (MTPA). This agreement will not affect the participating interests of any of the other shareholders.

Speaking at the signing ceremony, al-Kaabi said,“The People’s Republic of China is a major driver of the global energy

markets as well as being one of the most important gas markets in the world and is a key market for Qatari energy products.
“Today’s event underscores QatarEnergy’s commitment to deepening its relationships with key LNG consumers, while prioritising long-term strategic partnerships and alignment with world class partners from China, represented by Sinopec here today.”
Noting the November 2022 agreement to supply Sinopec with 4 MTPA of LNG from the NFE project, al-Kaabi said:“That agreement was not only the first NFE LNG supply agreement to be announced, but also the longest LNG supply agreement in the history of the industry. Today, Sinopec will join Qatar’s LNG family becoming the first Asian shareholder in the NFE project.”

“We are pleased to enter into this milestone agreement with Sinopec, marking yet another landmark in the excellent bilateral relations between the People’s Republic of China and the State of Qatar. I would like to thank the working teams in QatarEnergy and Sinopec for their dedicated work to reach this important agreement.
“We are always indebted to the wise leadership of His Highness the Amir Sheikh Tamim bin Hamad al-Thani, and to his continued guidance and support of the energy sector,” al-Kaabi concluded.
On his part, Dr Yongsheng congratulated both parties on signing the NFE project partnership agreement and said,“The meeting between Chinese President Xi Jinping and Qatar’s Amir His Highness Sheikh Tamim bin Hamad al-Thani during the first China-Arab Summit and China-GCC Summit in 2022, comprehensively outlined the development blueprint of the strategic partnership between the two countries and guided the China-Qatar energy cooperation.
“The signing of this agreement today is a concrete move to carry forward what has been agreed between the two heads of state and deepen the partnership between Sinopec and QatarEnergy. It is another milestone after the signing of the

long-term LNG SPA from the NFE project in November 2022, marking the integrated cooperation achieved by both companies on the NFE project."

"China-Qatar energy cooperation features a natural complementarity. QatarEnergy is a leading LNG producer in the world and one of the most important partners of Sinopec. The cooperation with QatarEnergy will help Sinopec further optimise China's energy consumption structure and enhance the security, stability, and reliability of clean energy supply.

"I hope that the two companies will continue to explore new LNG cooperation opportunities based on the solid foundation we have laid together and will further expand cooperation areas to achieve mutual benefit and win-win results," he added.

This agreement is the first of its kind after last year's series of partnership announcements in the $28.75bn NFE project, which will raise Qatar's LNG export capacity from the current 77mn tonnes per year to 110mn tons per year.

QatarEnergy signs MoU with Namibia to boost energy cooperation

QatarEnergy has signed a Memorandum of Understanding (MoU) with the Ministry of Mines and Energy of the Republic of Namibia to strengthen cooperation in the energy sector.

The agreement was signed by HE Minister of State for Energy Affairs, the President and CEO of QatarEnergy Eng. Saad bin Sherida Al Kaabi and HE Minister of Mines and Energy of the Republic of Namibia Tom Alweendo. The MoU paves the way for continued cooperation and covers key areas such as knowledge sharing, workforce development, and exploring further investment opportunities in Namibia.

Europe’s largest nuclear reactor enters service in Finland

Hours after Germany closed out its atomic era by turning off its last three nuclear reactors, the largest single reactor in Europe entered regular production in Finland, its operator said Sunday.

The next-generation Olkiluoto 3, now producing around 14 percent of the country’s electricity, is expected to remain operational for “at least the next 60 years”, according to the site’s operator TVO.

Germany meanwhile officially ended decades of nuclear energy use by turning off its last three nuclear reactors on

Saturday.

The Isar 2 reactor in the southeast of the country, the Neckarwestheim facility in the southwest and Emsland in the northwest were disconnected from the electricity network before midnight.

Europe's largest economy had been looking to leave behind nuclear power since 2002, but the phase-out was accelerated by former chancellor Angela Merkel in 2011 after the meltdown at the Fukushima nuclear plant in Japan.

In Finland, the European pressurized water reactor (EPR) was meanwhile put into regular service some 18 years after construction on the reactor began, and 14 years after it was originally scheduled to go into commercial production.

After it first reached full power in September last year, it was supposed to enter commercial production in December, but the start was pushed back several times during its testing phase.

'Trump card'

Built by the French-led Areva-Siemens consortium, the reactor was first started up in December 2021 and connected to the Finnish power grid in March last year.

"Test production has been completed and regular electricity production started today," TVO said. "From now on, about 30 percent of Finnish electricity is produced in Olkiluoto," which already had two reactors.

With a capacity of generating 1,600 megawatts, Olkiluoto 3 is the single largest nuclear reactor in Europe, while Ukraine's Zaporizhzhia plant, with its six reactors, is the largest nuclear plant.

Finland had been hoping to rely on the new reactor for its

electricity needs earlier this winter, given fears of energy shortages after Russia, a major supplier to Europe, invaded Ukraine and cut off gas exports in response to Western sanctions.

Jarmo Tanhua, CEO of TVO, in a statement called the “environmentally friendly electricity production” one of Finland’s “top trump cards”.

Safety vs. climate

The EPR was designed to relaunch the European nuclear industry after the Chernobyl catastrophe of 1986, and was touted as offering higher power and better safety.

But several EPR projects have been plagued by delays and billions of dollars in cost overruns.

At the end of last year, France’s state-owned energy group EDF had to announce another six-month delay for a new reactor being built at Flamanville, in northwest France, pushing back its projected start to mid-2024.

Hinkley Point in Britain and the Taishan plant in China have also suffered EPR production setbacks, cost overruns and delays.

The two EPR units in China have already entered commercial production, making Olkiluoto 3 the third to go into operation in the world.

Germany’s decision to end use of nuclear power was popular in a country with a powerful anti-nuclear movement.

But some have criticized how the decision upped the country’s dependence on coal, as it tried to manage an energy crisis caused by the war in Ukraine.

Markus Soeder, the conservative premier of the southern state

of Bavaria, called on the federal government to let his state continue using nuclear power.

“As long as the crisis has not ended and the transition to renewables has not been completed, we must use every form of energy until the end of the decade,” Soeder told the Bild am Sonntag on Sunday.

Nuclear technology has also seen renewed popularity as a way to reduce carbon emissions, with the Swedish climate activist Greta Thunberg slamming the German move as “a mistake” if it meant burning more coal.

TVO hailed the Olkiluoto 3 reactor as “Finland’s greatest climate act”, adding that it would “accelerate the move towards a carbon-neutral society”.

In Finland, a poll from May 2022 showed that 60 percent of Finns supported nuclear power.

Qatar LNG fleet expansion underpins domestic expansion of its North Field project, investments in US Gulf Coast: GECF

Qatar’s LNG fleet expansion will underpin its domestic expansion of the North Field project, as well as investments in the Golden Pass LNG terminal in the US Gulf Coast region, Gas Exporting Countries Forum (GECF) has said in a report.

To accomplish this, it has been reported that Qatar has secured booking slots at all of the major South Korean shipbuilding yards over the next five years, for orders of around 100 new carriers, GECF said in the fourth edition of its Annual Gas Market Report.

At the end of 2022, the global LNG carrier fleet stood at 677 vessels.

Although the total has gradually increased, only 28 new vessels were commissioned in 2022. This represented growth of 4%, which was the lowest increase since 2013, it said.

As observed in the recent historical trend since 2010, the years in which there is a sharp increase in the fleet growth rate are typically followed by a drop in the subsequent year.

Accordingly, this was repeated in 2022, with just over 4,600,000 cubic metres of LNG carrier capacity entering into service, merely half of the capacity commissioned in 2021.

Nevertheless, most of these new builds were of the capacity

range between 170,000 and 200,000 cubic metres; in recent years, this new conventional class of carriers has been phasing out the previous standard range of 125,000 to 170,000 cubic metres.

Additionally, around 240,000 cubic metres of “mid-sized” LNG carriers were brought online in 2022.

This, GECF noted, is an “important” growing niche market for LNG transportation, demonstrated by a further 320,000 cubic metres of capacity already confirmed on the global LNG carrier orderbook.

Of the vessels for which the technical specifications are known, around 170 of the new conventional-sized carriers are on order for delivery between 2023 and 2026.

In respect of LNG shipments, GECF noted that in 2022, the number of LNG cargoes traded globally reached 6,210, increasing 2% over the total number of shipments in 2021.

This continued the trend of more cargoes being traded annually in each of the past five years, except during the initial breakout of the pandemic in 2020.

Compared with 2021, the number of LNG shipments per month was greater for most of 2022; over the year, the monthly average number of cargoes was 518 compared with 506 in 2021.

For the fourth consecutive year, Australia delivered the highest number of LNG cargoes.

In 2022, just as in 2021, the US, Qatar, Russia, and Malaysia completed the top five exporters by number of shipments.

The US also had the highest increase in number of cargoes, recording an additional 81 more shipments in 2022 than in 2021.

The second highest increase was attributed to Norway, which loaded 49 cargoes from the restarted Hammerfest LNG terminal since June 2022.

The increasing trend in global LNG shipments is expected to continue in 2023 as per the overall growth in LNG demand. Furthermore, LNG shipping would be boosted by the restart of the Freeport LNG plant in the US, and increased cargo imports in Europe and Asia Pacific.

However, the LNG shipping market may experience tightness due to new IMO regulations in 2023 and further ahead, GECF noted.

Oil and gas investment rise 7% y-o-y to $718bn in 2022; may rise further in 2023: GECF

Oil and gas investment increased by 7% y-o-y to reach $718bn in 2022 and is expected to rise further in 2023, but looming uncertainties may deter investment, the Gas Exporting Countries Forum said in its fourth edition of its Annual Gas Market Report Wednesday.

In 2023, oil and gas investment is expected to rise further, on the back of greater investment in the upstream industry and

LNG import terminals.

However, several looming uncertainties, including a slowdown in global economic growth, tight financial conditions, inflation, and high energy price volatility, may deter investment, GECF noted.

Spot gas and LNG prices in Europe and Asia reached record highs in 2022, with significant volatility throughout the year. This, the report noted, was mainly due to a tight LNG market as Europe's LNG demand surged to replace lower pipeline gas imports.

In 2022, the Title Transfer Facility (TTF) spot gas prices in Europe averaged $38/MMBtu, 136% higher y-o-y, while Northeast Asia (NEA) LNG spot prices averaged $33/MMBtu, a 79% increase y-o-y.

This shift in prices made Europe the premier LNG market for suppliers, as TTF spot prices maintained a high premium over Asian LNG spot prices. In 2023, spot prices are expected to remain volatile.

Factors such as a relatively mild winter, high gas storage levels in Europe, and weakened gas demand growth in the midst of a slowdown in global economic growth may exert downward pressure on spot prices.

However, there may be some upward pressure on spot prices this year due to the anticipated recovery in China's gas demand, higher imports in price-sensitive countries in Asia Pacific, and a rebound in gas demand in the industrial sector.

Additionally, any further supply disruptions or extreme weather conditions during the year may also boost prices, GECF said.

Energy security concerns took precedence over climate change mitigation goals in 2022, with policymakers focusing on meeting the energy needs of their people, the report said.

Following a record rebound in 2021, global gas consumption declined in 2022, but is expected to resume growth in 2023 and reach an all-time high level, with the power generation sector remaining the largest consumer of gas.

US, China, and some emerging countries in Asia Pacific are

forecasted to drive the growth of global gas consumption in 2023, it said.

GECF secretary-general Mohamed Hamel said, “The Annual Gas Market Report is comprehensive and I hope it will become an essential tool for anyone interested in natural gas.”

The publication comes at a time when natural gas markets are undergoing fundamental transformations in terms of physical flows, investment, trade, and market functioning.

“The developments in the gas industry are an indication of the bright prospects for the expansion of the global gas industry, as natural gas is set to play a pivotal role in socio-economic development and towards just and inclusive energy transitions,” Hamel added.