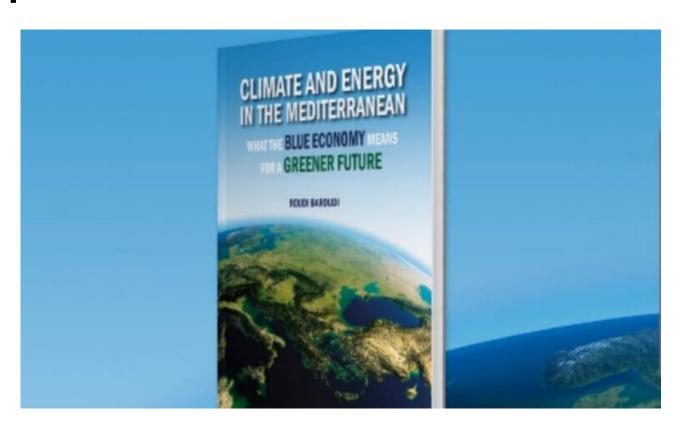
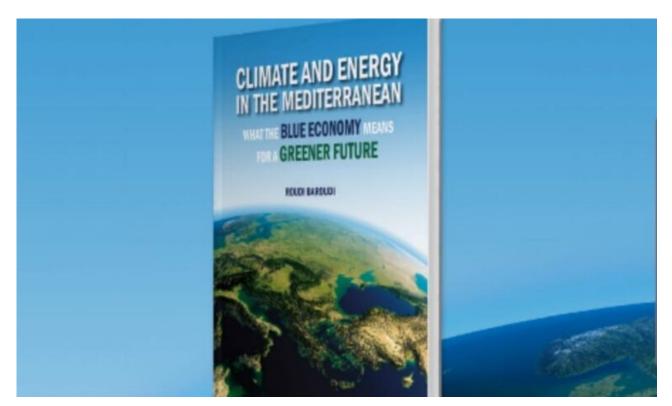
رياح المتوسط تنتج طاقة تضاهي طاقـة المفـاعلات النوويـة فـي العالم



رياح المتوسط تنتج طاقة تضاهي طاقـة المفـاعلات النوويـة فـي العالم



في الوقت الذي يفتش فيه لبنان عن وسائل ليست مكلفة لإنتاج الطاقة الكهربائية تاتي الأدلة تباعا التي تشير إلى أن استغلال الشمس والرياح في حوض البحر الأبيض المتوسط هي وسائل قادرة على تأمين الطاقة لدول عديدة في المنطقة ومن ضمنها لبنان الذي يتخبط منذ ٢٥ عاما من أجل تأمين الكهرباء من خلال الطاقات البديلة ورغم هذا التخبط يبقى الأمل موجودا إن وجدت الإدارة والإرادة لتفعيل هذا الملف،وفي هذا الإطار أتى الكتاب الجديد لرودي بارودي الرئيس التنفيذي لشركة استشارات الطاقة والبيئة القابضة ومقرها في الدوحة.

وقال الكتاب إن أنتاج الطاقة بواسطة رياح البحر الأبيض المتوسط الساحلية يمكنه أن يضاهي انتاج الطاقة من المفاعلات النووية في العالم أجمع،و أنه إذا اتخذت الدول الأورو-متوسطية الخيارات المحيحة، فإن الطاقة المتجددة بالإضافة لأنشطة "الاقتصاد الأزرق" الأخرى المتعلقة بالبحر يمكن أن تشكل الأساس لنهضة اقتصادية إقليمية.

الكتاب وهو بعنوان "المناخ والطاقة في البحر الأبيض المتوسط:"ما يعنيه الاقتصاد الأزرق لمستقبل أكثر خضرة"،وقد نُشر هذا الكتاب من قبل شبكة القيادة عبر الأطلسي،وهي مؤسسة فكرية مقرها واشنطن العاصمة، بالتعاون مع مطبعة معهد بروكينغز.

يحث الكتاب صانعي السياسات على اغتنام فرصة تاريخية أصبحت ممكنة

من خلال التقدم التكنولوجي السعريع،ويدعو بارودي الحكومات المتوسطية للتعامل مع البحر ككنز مشترك عابر للأجيال، من خلال الاستفادة بشكل أساسي من التقنيات الجديدة لإدارة موارده واستغلالها بأمان وبشكل مستدام لتحقيق أقصى فائدة ممكنة منه على المدى الطويل.ويحتوي الكتاب على دراسة حصرية أجرتها شركة فوغرو Fugro، المزود الرائد عالميًا للذكاء الجغرافي،والتي تقدر إمكانات طاقة البحرياح البحرية في منطقة البحر المتوسط بحوالي 500 مليون ميغاواط الرياح البحرية على منطقة البحر الطاقة من جميع المفاعلات النووية البالغ عددها 440 على الكوكب.

×

و قال بارودي، الذي عمل في مجال الطاقة لمدة أربعة عقود، إنه في حين أن تغير المناخ وتلوث الهواء والحاجة إلى تقليل انبعاثات الكربون هـي فـي حـد ذاتهـا أسـباب قويـة للاسـتثمار فـي الطاقـة الخضراء،فإن النتائج ستتجاوز بكثير الفوائد البيئية.

ولفت في خلال مؤتمر حوارات أثينا للطاقة،حيث تم إطلاق الكتاب بشكل مبدئي قبل طرحه الرسمي في وقت لاحق من هذا العام في واشنطن، إلى أن تقديرات قوة الرياح التي استخدمتها تستند إلى التقنيات القياسية الحالية المستخدمة في يومنا هذا و لن تحصل البلدان التي سوف تتبنى طاقة الرياح على الأسبقية في التحول من الوقود العادي إلى الطاقة النظيفة فحسب، بل ستكسب أيضًا مزايا اقتصادية واجتماعية ومزايا أخرى.

وأكد بارودي إن طاقة الرياح ستوفر على تلك البلدان المليارات من واردات النفط والغاز، وستزيد من أمن الطاقة لديها، وتجعل اقتصاداتها أكثر قدرة على المنافسة و سوف يجنب الهواء النظيف سكان تلك البلدان الأمراض والأوبئة، وسيوفر التطور والتنمية الصاعدة وظائف أكثر وأفضل لسكانها، ويحد من الفقر وعدم المساواة. وفي كثير من الحالات، ستوفر صادرات الطاقة المزيد من الإيرادات للاستثمارات في مجالات التعليم والنقل والبنية التحتية.

وقال بارودي: أشجع بقوة على الاستفادة القصوى من فرصنا كمنطقة واحدة، وكذلك على الحفاظ على موارد الطبيعة للأجيال القادمة، أردت أن يساعد الكتاب في جعل أكبر عدد ممكن من الأشخاص يفهمون القرارات المعروضة علينا ويفعلون كل ما في وسعهم — سواء أكانوا صانعي سياسات، أو مستثمرين أو أصحاب اعمال صغيرة أو مهندسين أو

مواطنين، أوما إلى ذلك — لضمان اتخاذ القادة وغيرهم من صناع القرار الخيارات الصحيحة.

وأضاف بارودي: ما أقترحه هو أنه يمكننا ويجب علينا استخدام جميع الوسائل المتاحة لدينا، ليس فقط لإنتاج الطاقة النظيفة باستخدام الرياح البحرية، والطاقة الشمسية، والأمواج، والمد والجزر، والطاقة الجرارية الجوفية تحت سطح البحر، ولكن أيضًا لإعادة اختراع الركائز الأخرى للاقتصاد الإقليمي، من تربية الأحياء المائية ومصايد الأسماك التقليدية إلى السياحة والنقل البحري.

وختم بارودي كلامه بالقول يمكن للمعدات الحديثة والتطبيقات المبتكرة أيضًا أن توسع اقتصادنا الأزرق ليشمل مجالات مثيرة مثل الأبحاث البيولوجية لاكتشاف أدوية جديدة، أو التعدين الآمن والمسؤول في أعماق البحار للتنقيب عن المواد الحيوية المستخدمة في صناعة الهواتف المحمولة والبطاريات المتطورة التي ستساعدنا على الابتعاد عن الوقود العادي.

Pakistan aims to sign a longterm liquefied natural gas purchase deal in a bid to secure future supply and ease crippling blackouts.



The South Asian nation intends to float a tender to purchase one LNG cargo per month for 10 to 15 years, said Shahid Khaqan Abbasi who is overseeing the energy sector for Prime Minister Shehbaz Sharif.

The government is still deciding the timeline for when to issue the tender, which they will use to gauge the market response and pricing, Abbasi said in an interview.

Sharif's government will also speak with LNG suppliers in the Middle East, including Qatar, the UAE, Saudi Arabia and Oman, for a long-term contract, according to Abbasi.

Pakistan last week said it's not ruling out a potential gas supply agreement with Russia.

Pakistan depends on overseas LNG for power generation, and was hit particularly hard by the surge in spot prices and supply disruptions. The cash-strapped government resorted to planned blackouts to conserve its dwindling supply of fuel.

Asian LNG spot prices are trading at a seasonal high after Russia's invasion of Ukraine exacerbated an already tight market.

Pakistan was forced to purchase several expensive LNG shipments from the spot market to keep the lights on last month.

Long-term deals are much cheaper than current spot rates, and may provide some relief for Pakistan's government.

Abbasi, who is a former prime minister and energy minister, signed several long-term LNG supply deals with Qatar, Eni SpA and Gunvor Group in 2016 and 2017.

However, Eni and Gunvor have canceled several scheduled cargoes to Pakistan in the last year, exacerbating the nation's energy shortage and fueling political instability.

The suppliers backed out by paying a 30 percent penalty on the cost of the shipment, which is envisaged in the contracts if they cannot deliver.

The government will keep the 30 percent clause in future deals, said Abbasi, who explained that it is standard in contracts.

Pakistan is also open to signing a 30-year contract to make sure it has enough fuel to power its economy well into the future, said Abbasi.

Today, the industry's longest deals rarely top 20 years.

Iraq Faces Further Power Cuts As Iran Gas Debt Missed



Iraq has failed to pay \$1.6 billion owed to neighbouring Iran for gas imports, a debt needed to guarantee further supplies critical to prevent worsening power cuts, Baghdad's authorities said Wednesday.

Payment of the debt was a key requirement to ensure energy supplies for Iraq's power plants during the intense heat of the upcoming summer months, when electricity demands surge as people seek to keep cool.

"Iran had demanded the payment by Iraq of its financial obligations for the payment of the gas," Iraq's electricity ministry said in a statement.

However, due to "the delay in the adoption of the budget", as well as parliamentary blockages stalling a bill aimed to guarantee debt payments in the electricity sector, this led to

"delays".

Supplies have already been reduced by five million cubic metres of gas per day, limiting the operation of the power stations and "reducing the hours of electricity supply", the ministry added.

Despite its immense oil and gas reserves, Iraq remains dependent on imports to meet its energy needs.

Iran currently provides a third of Iraq's gas and electricity needs, but supplies are regularly cut or reduced, aggravating daily load shedding.

The electricity ministry stressed the "efforts of parliament and the government" to allow the ministry to "find compromise solutions with Iran in order to pay the arrears and guarantee the supply of gas".

The debt, which was due to have been paid by the start of June, dates back to 2020.

It was stalled amid sanctions against Iran by the United States, which mean that Baghdad cannot pay directly for energy imports in cash.

Instead, it must be used in a complicated process to buy goods from the agriculture or pharmaceutical sectors.

Last year, when temperatures in Iraq soared to 52 degrees Celsius (125 Fahrenheit) in the shade, swathes of the country suffered blackouts, sparking several sporadic protests and prompting the electricity minister to resign.

Iraq is already sweltering, with temperatures climbing to 48 degrees Celsius (118 Fahrenheit) on Thursday, according to the meteorological service.

Ranked as one of the world's five most vulnerable nations to climate change effects, Iraq has seen a series of sandstorms

sweep the country in recent months, sending thousands of people to hospital with respiratory problems.

Gazprom cuts more customers in Europe, but rewards shareholders with dividend



Russian gas giant's exports have fallen 28% this year, and decline would have been higher were it not for European push to replenish gas storage

Gazprom has announced it has halted gas supplies for two more customers in Europe, effective from 1 June, after both declined to accept changes in payment terms imposed by the Russian company's foreign trading subsidiary.

Gazprom identified Denmark's Orsted Salg & Service and UK-based Shell Energy Europe as the affected customers.

The Russian company added that it supplied close to 2 billion

cubic metres of gas to Orsted in 2021, equivalent to about two thirds of Denmark's natural gas consumption.

Gazprom added that its contract with Shell Energy Europe called for the delivery of 1.2 Bcm of gas in 2022, mostly to consumers in Germany.

UPDATED: EU agrees to ban 90% of Russian oil imports by end of year

Read more

According to Gazprom, both customers had failed to switch to a new payment system by 31 May, even after they were requested to do so by the Russian government.

At the end of March, Russian President Vladimir Putin ordered Gazprom to amend its contracts with European customers to divert their payments in euros or US dollars for delivered gas to Moscow-based Gazprombank.

These payments would then have to be fully converted into rubles and credited to Gazprom's local accounts in order for payments for gas deliveries to be considered completed.

Orsted chief executive Mads Nipper said: "We stand firm in our refusal to pay in rubles, and we've been preparing for this scenario, so we still expect to be able to supply gas to our customers.

"The situation underpins the need of the European Union becoming independent of Russian gas by accelerating the buildout of renewable energy."

Since there is no gas pipeline running directly from Russia to Denmark, Russia will not be able to cut off the gas supplies to Denmark directly, but the Russian move will necessitate increased gas purchases on the European gas market, Orsted said.

Halting supplies to Shell Energy Europe and Orsted follows

similar moves by Gazprom in recent weeks to stop gas supplies to Finland, Poland and Bulgaria.

Executive director of Ukraine's gas transmission authority Operator GTS Ukrainy, Sergey Makogon said on his social network page that he believed it is time for the EU to introduce restriction on the Nord Stream subsea pipeline that carried Gazprom's gas directly to Germany.

Officials in Ukraine and Poland, together with independent industry observers, have led a chorus of accusations against Russia for what they describe as the "weaponsising" of the Russian pipeline gas to exert geopolitical leverage in Europe.

Despite its contractual obligations to send close to 110 million cubic metres of gas via Ukraine to Europe in 2022, Gazprom has been scaling down shipments, with transit gas flows down to 41 MMcmd just this week.

Gas exports down, dividend up

Between January and May, Gazprom's gas exports to Europe and Turkey fell by almost 28% to 61 Bcm, the company said on Wednesday.

Gazprom's total gas production during this period also declined by 5% to just over 211 Bcm.

Ignoring the challenging market outlook, Gazprom announced record high dividends on its stock for 2021, amounting to 1.24 trillion rubles (\$20.7 billion).

The government is set to receive just over a half of that payment as it holds an over 50% shareholding in the company.

Managing partner at Moscow based energy consultancy RusEnergy, Mikhail Krutikhin, suggested that such high payout may be linked to additional expenses that Russian authorities incur in relation to the invasion of Ukraine.

According to Krutikhin, authorities may not see similar high dividend payments from Gazprom for 2022 because its profitability may decline as a result of lower gas exports.

Meanwhile, spot market gas prices declined by almost 6% to about €89 (\$96) per megawatt in Wednesday trading on Wednesday, according to the London-based ICE Exchange.

The shift was attributed to reports of large customers of Gazprom in Europe accepting the new payment arrangement.

https://www.upstreamonline.com/production/gazprom-cuts-more-customers-in-europe-but-rewards-shareholders-with-dividend/2-1-1228805?utm_source=email_campaign&utm_medium=email&utm_campaign=2022-06-01&utm_term=upstream&utm_content=daily

Dismantling the fossil-fuel economy at Stockholm+50



Our planet is facing a triple crisis of climate, nature, and pollution, with one common cause: the fossil-fuel economy. Oil, gas, and coal are at the root of runaway climate disruption, widespread biodiversity loss, and pervasive plastic pollution. The conclusion is clear and must be paramount when political leaders gather in Stockholm this week to commemorate the 50th anniversary of the first United Nations Conference on the Human Environment. Any effort to address these existential threats to human and ecological health will mean little as long as the fossil-fuel economy remains intact.

As UN Secretary-General António Guterres recently noted, fossil fuels are choking our planet. In the last decade, their combustion accounted for 86% of global carbon dioxide emissions, for which just a few actors bear overwhelming responsibility. In fact, nearly two-thirds of all CO2 emitted since the Industrial Revolution can be traced to just 90 polluters, mostly the largest fossil-fuel producers.

Yet, rather than reining in the polluters, the world's governments are currently planning to allow more than twice as much fossil-fuel production in 2030 than would be consistent with the goal — agreed under the 2015 Paris climate agreement — of limiting global warming to 1.5C above pre-industrial levels. And when it comes to the damage wrought by fossil fuels, higher global temperatures and intensifying extreme weather events are only the beginning.

Last year, the UN Special Rapporteur on Toxics and Human Rights, Marcos A Orellana, affirmed what frontline communities have long known: fossil-fuel production generates toxic compounds and pollutes air, water, and soil. Air pollution from burning fossil fuels was responsible for about one in five deaths worldwide in 2018. Moreover, oil and gas are the building blocks of the toxic chemicals, pesticides, and synthetic fertilisers that are pushing ecosystems and species to extinction. These fossil-fuel-based products perpetuate an economic and agro-industrial model that drives deforestation, destroys biodiversity, and threatens human health.

Fossil fuels are also behind the proliferation of plastics, which are accumulating in even the most remote areas of the planet, from the top of Mount Everest to the bottom of the Mariana Trench. Ninety-nine percent of all plastics are made from chemicals derived from fossil fuels, predominantly oil and gas. The production of petrochemical feedstocks for plastics and the use of fossil fuels throughout the plastics value chain are boosting demand for oil and gas and exposing millions of people to toxic pollution.

As if that were not enough, fossil fuels foment and fund violent conflict around the world. The fossil-fuel economy is enabling Russian President Vladimir Putin's war in Ukraine and the humanitarian crisis it has created. In the seven years after Russia illegally annexed Crimea, eight of the world's biggest fossil-fuel companies enriched Russia's government by an estimated \$95.4bn. Russia's revenues from energy exports have soared since the invasion of Ukraine in February, which drove up prices. And big Western oil companies, cashing in on the conflict, have raked in record profits.

Instead of facing accountability, the oil and gas industry and its allies are exploiting the Ukraine crisis to push for even more drilling, fracking, and exports of liquefied natural gas (LNG) all around the world. But new fossil-fuel infrastructure, which will take years to bring online, will do nothing to address the current energy crisis. Instead, it will only deepen the world's dependence on fossil fuels, enhance producers' ability to wreak havoc on people and the planet, and push a climate-safe future further out of reach.

As world leaders gather for Stockholm+50, breaking our addiction to fossil fuels should be the top priority. Yet fossil fuels are conspicuously absent from the official concept note and agenda, and they are barely mentioned in the background papers of the three Leadership Dialogues that are supposed to inform the summit's outcome.

This omission is no accident. The fossil-fuel lobby has decades of experience sowing doubt about the damage the industry is causing and obscuring the link between fossil

fuels and the toxic chemicals used in industrial agriculture and plastic products. When outright denial has not worked, the industry has touted false solutions, including speculative technological fixes, market mechanisms with gigantic loopholes, and misleading "net-zero" pledges. The goal is to divert political attention from the urgent action needed to end reliance on fossil fuels and scale-up proven approaches, like renewable energy, agroecology, and plastic reduction and reuse.

Such transformative action is precisely what Stockholm+50 must deliver. Participating governments and decision-makers must acknowledge that fossil fuels are the main driver of the triple crisis we face, and they must set a bold agenda for halting fossil-fuel expansion, ensuring a rapid and equitable decline of oil, gas, and coal, and accelerating a just transition to a fossil-free future.

One possible feature of such an agenda would be a Fossil Fuel Non-Proliferation Treaty — an initiative that has attracted wide support, including from thousands of civil-society organisations, hundreds of scientists and parliamentarians, more than 100 Nobel laureates, and dozens of municipal governments. To spur progress, a broad range of stakeholders — including representatives of indigenous communities, governments, international institutions, and academia — will gather the day before Stockholm+50 for the Pre-Summit on the Global Just Transition from Fossil Fuels.

In parallel with the Stockholm meeting, an intergovernmental negotiating committee, convened by the UN Environment Programme, is gathering in Dakar to develop a legally binding global plastics treaty. Crucially, the treaty will have to take a comprehensive approach that addresses the full plastic life cycle, beginning with fossil-fuel extraction.

If we have learned one thing in the 50 years since the first Stockholm conference, it is that a future tied to fossil fuels is no future at all. To tackle the converging crises of climate change, biodiversity loss, and petrochemical and plastic pollution, Stockholm+50 has no alternative but to

confront oil, gas, and coal head-on. — Project Syndicate

- Nikki Reisch is Director of the Climate and Energy Program at the Center for International Environmental Law.
- Lili Fuhr is Deputy Director of the Climate and Energy Program at the Center for International Environmental Law.

Sun-starved Sweden turns to solar to fill power void



Bloomberg

Sweden, known for its long dark winters with barely any daylight, is seeing a solar power boom.

Harnessing whatever sunshine the country gets is emerging as the quickest solution to fill part of the void left by two closed nuclear reactors in southern Sweden, where the biggest cities and industries are located. With shortages piling up in the region and consumers keen to secure green energy at stable prices, solar is quickly catching up with wind as developers put panels on rooftops and underutilised land in populated areas.

While the lack of sunlight is a hindrance, every bit of new electricity capacity will lower imports from Europe where prices are more than three times higher than in the rest of Sweden. Projects are also getting built quickly because developers are directly getting into power sales deals with consumers and aren't dependent on government support, said Harald Overholm, CEO of Alight AB, which started Sweden's biggest solar plant this month.

Companies are targeting a quick ramp-up, pushing total capacity in the country to 2 gigawatt this year. That's more than the two nuclear reactors in Ringhals that were halted in 2020, and will close the gap with Denmark, an early mover in the industry in the region.

"We are very good at creating contracts directly with commercial partners that use power, and that is what drives our development," said Harald Overholm, CEO of Alight.

The past winter has demonstrated the hole left behind by the two atomic reactors, with the government facing the task of resolving a divergent market. While vast hydro and wind projects have kept the cost of electricity in the sparsely populated north in check, a lack of generating capacity and congested grids have forced the south at times to import power.

Eni, Sonatrach sign deal to boost Algeria gas exports to Italy



MILAN, May 26 (Reuters) — Energy group Eni (ENI.MI) and Sonatrach signed a deal to accelerate the development of gas fields in Algeria and the development of green hydrogen, part of moves to increase the north African country's gas exports towards Italy.

Italy, which last year sourced about 40% of its gas imports from Russia, has been scrambling to diversify its energy supply mix as the conflict in Ukraine escalates.

Algeria, Italy's second-biggest gas supplier last year, has been pumping Algerian gas to Italian shores since 1983 through the Transmed pipeline, which runs to Sicily.

The gas production volumes expected from the areas covered by

Thursday's agreement are equal to some 3 billion cubic meters (bcm) per year and will contribute to increasing the export capacity of Algeria to Italy through the Transmed pipeline, Eni said.

The signing is part of the agreement reached by the two energy groups in April, when they announced they would gradually raise gas flows in the pipeline starting this year and reach 9 billion cubic metres (bcm) of extra gas per year by 2023-24.

The Memorandum of Understanding was signed in Rome by the top executives of the Italian and the Algerian groups in a ceremony witnessed by the President of Algeria Abdelmadjid Tebboune and Italian Prime Minister Mario Draghi.

Algeria's gas exports to Italy climbed last year, jumping 76% to 21 billion cubic metres — 28% of overall consumption and second behind the 29 bcm from top supplier Russia.

The agreement will allow Sonatrach and Eni to evaluate the gas potential and opportunities for accelerated development at specific fields already discovered by Sonatrach in Algeria.

The Memorandum also covers the technical and economic evaluation for a green hydrogen pilot project in Bir Rebaa North (BRN) in the Algerian desert, with the goal of supporting the decarbonisation of the BRN gas plant operated by the SONATRACH-Eni GSE joint venture.

Eni is the main international energy company operating in Algeria, where it has been present since 1981.

In the race to cut Rome's dependency from Russian gas, Italian ministers have tapped numerous countries like Congo Republic, Angola, Azerbaijan and Qatar.

Global LNG demand to more than double to 800mn tonnes by 2050: GECF



Pratap John

Global LNG demand will more than double from 356mn tonnes in 2020 to 800mn tonnes by 2050, "fuelled by solid demand from Asia and a rise in gas use for powering hard-to-electrify sectors", according to the Gas Exporting Countries Forum (GECF).

The biggest regasification capacity additions to 2050 are expected in Asia Pacific, GECF said in its 'Global Gas Outlook 2050'.

Total regasification capacity rose from 572mn tonnes per year (MTPY) in 2010 up to 947 MTPY in 2020.

By 2050, regasification capacity is projected to grow to 1465mn tonnes per year, significantly outrunning the actual projected LNG demand.

That will include, by 2050, almost 1050 MTPY in Asia, and 190

MTPY in Europe. China will top the list of regasification capacity by 2050 with almost 340 MTPY, followed by Japan with 210 MTPY, South Korea with over 150 MTPY and India with 100 MTPY, GECF said.

Some eight new regasification terminals were commissioned in 2020 with a total LNG regas capacity of 26 MTPY, primarily in Asia Pacific region as well as Latin America (Brazil, Puerto Rico). Gas infrastructure build-out, coal-to-gas switching and market deregulation are the main determinants for LNG demand growth.

South and Southeast Asia are likely to drive LNG demand growth in the future as the countries are investing heavily in gas pipelines and regasification terminals. India offers the most demand growth potential in the region due to the scale of its infrastructure expansion. The South and Southeast Asia region might grow its share of global LNG demand from 14% in 2020 to over 40% by 2050.

Around 150 MTPY of new LNG regasification terminals are under construction, of which about almost three-fourth, or 110 MTPY is in Asia Pacific, where the top countries are China (over 50 MTPY), India (20 MTPY) and 28 MTPY in the Middle East, in Kuwait and Bahrain.

By 2050, the majority of incremental growth in natural gas imports will be undoubtedly attributed to Asia Pacific with almost 650 bcm additions over 2020-2050.

Latin America and Europe, with total increases of 55 bcm and 35 bcm, respectively will follow. The underlying demand will be balanced out by supply increases from primarily Eurasia (285 bcm) Middle East (230 bcm) together with North America (160 bcm) and Africa (50 bcm) over the long term.

Asia Pacific will account for the highest share of global imports by 2050, while the share held by the European market will be gradually decreasing as import volumes increase slowly by 2030, GECF noted.

LNG liquefaction investment may have scaled up to \$23bn in 2021: GECF



Qatar's \$29bn FID on North Field expansion is a game-changer, noted GECF Global Gas Outlook 2050

LNG liquefaction investment that dropped in 2020 may have scaled up to more than \$23bn in 2021 led by Qatar, US and Russia, according to Gas Exporting Countries Forum (GECF).

Qatar's project, with a final investment decision (FID) of \$29bn taken in February 2021 on North East Field expansion, which will add 33mn tonnes per year (mtpy) to the currently existing 77mtpy, is a game-changer, noted the GECF Global Gas Outlook 2050.

Asia Pacific, the main destination of the world's LNG at present and by 2050, will represent the largest transformational challenge for the currently fragmented natural gas market. Asia Pacific with 70% share of LNG trade in 2020 to make up for even more impressive over 80% by 2050.

The top four largest LNG importers emerged in Asia Pacific and will remain so in 2050 with India becoming second largest LNG importer. China became the top global LNG importer in 2021 overtaking Japan as the leader in the consumption of liquefied

gas, followed by South Korea, and India.

By 2050, the majority of incremental growth in natural gas imports will be undoubtedly attributed to Asia Pacific with almost 650bcm additions over 2020-2050. Latin America and Europe, with total increases of 55bcm and 35bcm, respectively will follow, the GECF noted.

The underlying demand will be balanced out by supply increases from primarily Eurasia (285bcm) Middle East (230bcm) together with North America (160bcm) and Africa (50bcm) over the long term.

Asia Pacific will account for the highest share of global imports by 2050, while the share held by the European market will be gradually decreasing as import volumes increase slowly by 2030 due to a significant drop in domestic production but will later slow down till 2050. The overall natural gas demand in Europe is starting to decrease as decarbonisation and the "green deal" efforts are seen to move gas out of energy mix.

Slow LNG demand is seen in Africa, the Caribbean and partially in the Middle East. A very few import terminal projects are currently being built there.

Pipeline trade will see relatively modest growth, mainly due to shifting the export focus from the European to the Asian market, ramping up exports from Russia and Turkmenistan to China.

According to the GECF, a rapid shift in demand for LNG from traditional markets to emerging markets will be envisaged in the coming 30 years. The Asian natural gas market is anticipated to stay the largest regional market over the 2020-2050 period, as more countries start importing natural gas with existing importers from predominantly developing Asia ramp-up the existing inflow trade.

The incremental growth in Asian imports will be attributed to China (195bcm) and India (107bcm), 14bcm by South Korea, with the balance taken by new importers from South and Southeast Asia and other developing Asia. Legacy importers such as Japan and Taiwan will slowly decrease gas imports.

The share of global demand met by the traditional markets — Japan, South Korea, and Taiwan — will drop from 39% in 2020 to 18% by 2040, mainly due to lower gas demand for power generation in Japan, the GECF said.