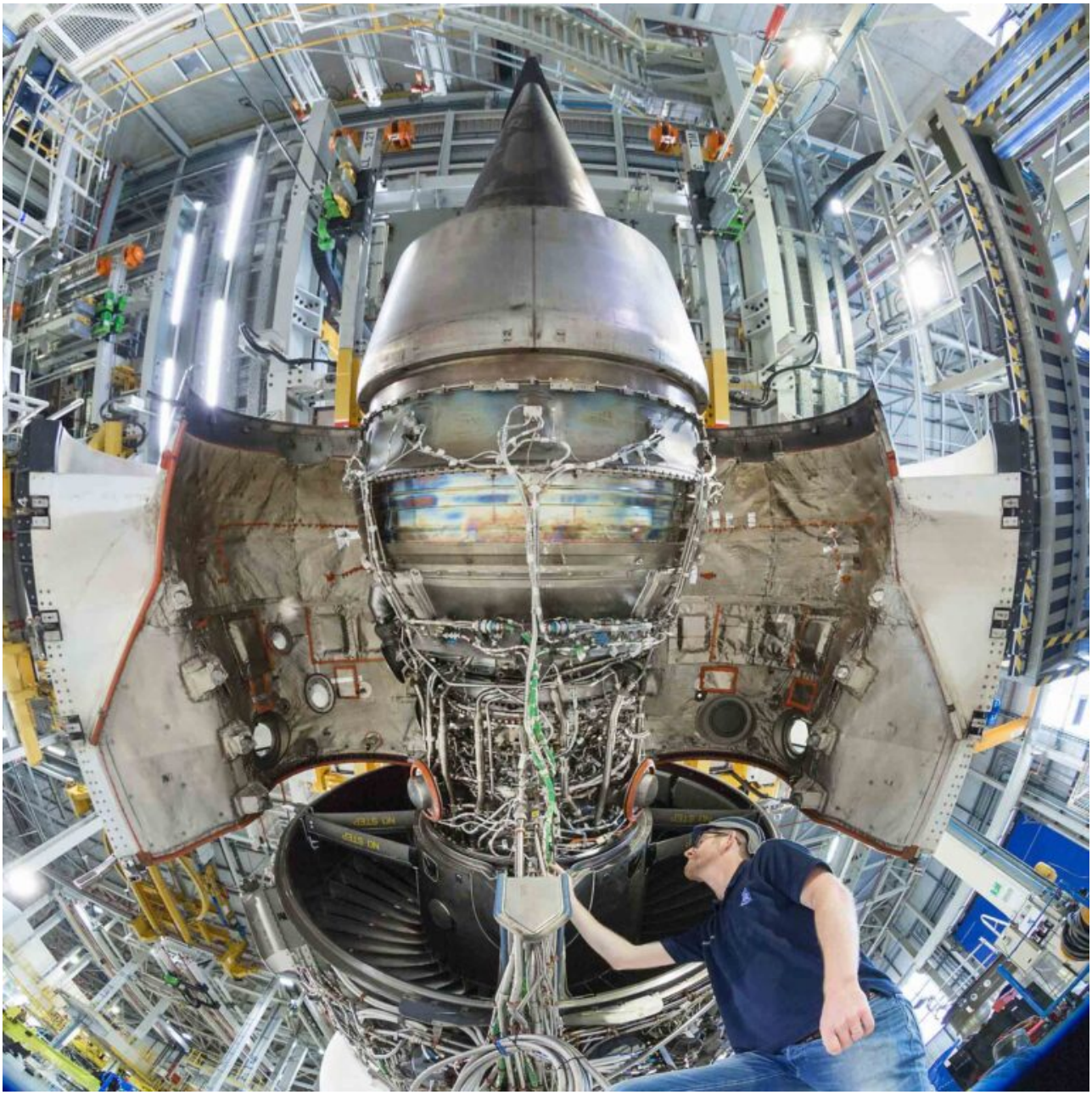
Rolls-Royce, Shell Deepen Sustainable Jet-Fuel Partnership



Rolls-Royce Holdings Plc and Royal Dutch Shell Plc said they'll deepen their cooperation on sustainable aviation fuels as part of the push to achieve net-zero carbon emissions.

At the heart of the agreement are plans to explore opportunities for bringing 100% SAF to certification, the companies said Wednesday. Such fuels can currently be blended

with kerosene in concentrations of no more than 50%.

Airlines are counting on SAF to reduce carbon emissions in the years before electric- and hydrogen-based propulsion systems become widely available, most likely after 2035. Progress has been hampered by regulatory hurdles and a lack of supply both of biofuels and their synthetic equivalents, which has pushed prices significantly beyond those for traditional jet fuel.

The collaboration will also aim to develop new innovations, with SAF expected to have a role powering hybrid-electric versions of flying taxis currently in the final stages of development as well as jetliners and corporate aircraft, Rolls-Royce Chief Technology Officer Paul Stein said.

“The investments that are going to be required to scale up sustainable aviation fuels are measured in billions,” Stein said in an interview following the announcement. For energy companies, “before they invest their dollars in SAF-plants they need comfort that the market will be there and customers will buy the fuel.”

The agreement deepens an existing partnership between the companies in alternative fuels. Shell will supply sustainable aviation fuels to Rolls-Royce as the company aims to test engines like Ultrafan to demonstrate they are 100% SAF compatible. Shell is also the exclusive supplier for Rolls-Royce’s new SAFinity service allowing business travelers to take carbon-neutral flights, while the firms will also look at opportunities to co-operate in shipping and rail.

The key to moving forward with sustainable fuels is getting regulation in place to mandate their use, said Stein. The U.S. favors subsidizing the fuel at source, which is “not incompatible” with the European approach, he added.

In April, Shell announced an investment in sustainable-fuels technology company LanzaJet, adding to a string of deals meant to position the oil giant for the energy transition. Rolls-

Royce in turn plans to make all of its in-production civil aircraft engines compatible with burning 100% SAF by 2023.

How biofuels cut emissions:

The carbon dioxide absorbed by plants during the growth of biomass is roughly equal to the amount produced when the fuel is burned, making SAF approximately carbon-neutral over its life cycle. However, CO2 released during the production and transport of SAF means the reduction in emissions is about 80% compared with fossil fuels. Feedstocks for biofuel also include spent cooking oil, waste gases and agricultural residues.

Economics needs a climate revolution

By Tom Brookes And Gernot Wagner/ Brussels/New York

• There is no excuse for continuing to adhere to an intellectual paradigm that has served us so badly for so long

Nowhere are the limitations of neoclassical economic thinking – the DNA of economics as it is currently taught and practised – more apparent than in the face of the climate crisis. While there are fresh ideas and models emerging, the old orthodoxy remains deeply entrenched. Change cannot come fast enough.

The economics discipline has failed to understand the climate crisis – let alone provide effective policy solutions for it – because most economists tend to divide problems into small, manageable pieces. Rational people, they are wont to say, think at the margin. What matters is not the average or totality of one's actions but rather the very next step, weighed against the immediate alternatives.

Such thinking is indeed rational for small discrete problems. Compartmentalisation is necessary for managing competing demands on one's time and attention. But marginal thinking is inadequate for an all-consuming problem touching every aspect of society.

Economists also tend to equate rationality with precision. The discipline's power over public discourse and policymaking lies in its implicit claim that those who cannot compute precise benefits and costs are somehow irrational. This allows economists – and their models – to ignore pervasive climate risks and uncertainties, including the possibility of climatic tipping points and societal responses to them. And when one considers economists' fixation with equilibrium models, the mismatch between the climate challenge and the discipline's current tools becomes too glaring to ignore.

Yes, a return to equilibrium – getting "back to normal" – is an all-too-human preference. But it is precisely the opposite of what is needed – rapidly phasing out fossil fuels – to stabilise the world's climate.

These limitations are reflected in benefit-cost analyses of cutting emissions of carbon dioxide and other greenhouse gases. The traditional thinking suggests a go-slow path for

cutting CO2. The logic seems compelling: the cost of damage caused by climate change, after all, is incurred in the future, while the costs of climate action occur today. The Nobel prize-winning verdict is that we should delay necessary investment in a low-carbon economy to avoid hurting the current high-carbon economy.

To be clear, a lot of new thinking has gone into showing that even this conventional logic would call for significantly more climate action now, because the costs are often overestimated while the potential (even if uncertain) benefits are underestimated. The young researchers advancing this work must walk a near-impossible tightrope, because they cannot publish what they believe to be their best work (based on the most defensible assumptions) without invoking the outmoded neoclassical model to demonstrate the validity of new ideas.

The very structure of academic economics all but guarantees that marginal thinking continues to dominate. The most effective way to introduce new ideas into the peer-reviewed academic literature is to follow something akin to an 80/20-rule: stick to the established script for the most part; but try to push the envelope by probing one dubious assumption at a time. Needless to say, this makes it extremely difficult to change the overall frame of reference, even when those who helped establish the standard view are looking well beyond it themselves.

Consider the case of Kenneth J Arrow, who shared a Nobel Prize in Economic Sciences in 1972 for showing how marginal actions taken by self-interested individuals can improve societal welfare. That pioneering work cemented economists' equilibrium thinking. But Arrow lived for another 45 years, and he spent that time moving past his earlier work. In the 1980s, for example, he was instrumental in founding the Santa Fe Institute, which is dedicated to what has since become known as complexity science – an attempt to move beyond the equilibrium mindset he had helped establish.

Because equilibrium thinking underpins the traditional climate-economic models that were developed in the 1990s,

these models assume that there are tradeoffs between climate action and economic growth. They imagine a world where the economy simply glides along a Panglossian path of progress. Climate policy might still be worthwhile, but only if we are willing to accept costs that will throw the economy off its chosen path.

Against the backdrop of this traditional view, recent pronouncements by the International Monetary Fund and the International Energy Agency are nothing short of revolutionary. Both institutions have now concluded that ambitious climate action leads to higher growth and more jobs even in the near term.

The logic is straightforward: climate policies create many more jobs in clean-energy sectors than are lost in fossil-fuel sectors, reminding us that investment is the flipside of cost. That is why the proposal for a $2 trillion infrastructure package in the United States could be expected to spur higher net economic activity and employment. Perhaps more surprising is the finding that carbon pricing alone appears to reduce emissions without hurting jobs or overall economic growth. The problem with carbon taxes or emissions trading is that real-world policies are not reducing emissions fast enough and therefore will need to be buttressed by regulation.

There is no excuse for continuing to adhere to an intellectual paradigm that has served us so badly for so long. The standard models have been used to reject policies that would have helped turn the tide many years ago, back when the climate crisis still could have been addressed with marginal changes to the existing economic system. Now, we no longer have the luxury of being able to settle for incremental change.

The good news is that rapid change is happening on the political front, owing not least to the shrinking cost of climate action. The bad news is that the framework of neoclassical economics is still blocking progress. The discipline is long overdue for its own tipping point towards new modes of thinking commensurate with the climate challenge.

— Project Syndicate

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Η κλιματική κρίση δίνει σε Ελλάδα και Τουρκία την ευκαιρία για «ιστορικούς συμβιβασμούς»

Ελλάδα και Τουρκία έχουν τα πάντα να κερδίσουν και τίποτα ή σχετικά λίγα να χάσουν συνεργαζόμενοι σε κάθε ευκαιρία, αλλά ειδικά στην ενέργεια

ΗΕλλάδα και η Τουρκία έχουν μια από τις πιο περίπλοκες σχέσεις του κόσμου. Όλοι γνωρίζουμε την ιστορία, αν και πολλές από τις λεπτομέρειες αμφισβητούνται. Ωστόσο, υπάρχουν ορισμένα αδιαμφισβήτητα γεγονότα. Δύο πρώην μακροχρόνιοι εχθροί συγκεντρώθηκαν ως σύμμαχοι από τον Ψυχρό Πόλεμο, όταν και οι δύο εντάχθηκαν στο ΝΑΤΟ, αλλά γενικά παρέμειναν σε διαφωνίες για έναν μακρύ κατάλογο θεμάτων.

Το βασικό μάθημα από αυτήν την απλή σύνοψη είναι ότι η Ελλάδα και η Τουρκία εντάχθηκαν στην Ατλαντική συμμαχία για τον ίδιο βασικό λόγο: ο καθένας θεωρούσε τη διαμάχη τους ως μια μικρότερη απειλή από αυτήν που έθεσε η Σοβιετική Ένωση, η οποία ήταν δυνητικά υπαρξιακή. Στο τέλος της ημέρας, και παρά τις παλιές δυσαρέσκειες και τις συνεχιζόμενες εντάσεις, οι διαδοχικές κυβερνήσεις – συμπεριλαμβανομένου της χούντας – και των δύο χωρών τήρησαν την ίδια λογική ανάλυση για δεκαετίες.

Και οι δύο εξακολουθούν να είναι μέλη του ΝΑΤΟ, αλλά η σοβιετική απειλή αντικαθίσταται μόνο εν μέρει από μια πολύ πιο αδύναμη Ρωσία. Σε κάποιο βαθμό, αυτό οδήγησε σε επανέναρξη της ελληνοτουρκικής τριβής, ειδικά στα θαλάσσια σύνορά τους στη Μεσόγειο.

Διακυβεύονται πολλά περισσότερα από την υπερηφάνεια ή την επικράτεια

Και αυτή τη φορά, διακυβεύονται πολλά περισσότερα από την υπερηφάνεια ή την επικράτεια. Δεδομένου ότι έχουν ανακαλυφθεί τεράστιες ποσότητες φυσικού αερίου ανοικτής θάλασσας σε πολλά μέρη της Ανατολικής Μεσογείου, η διασυνοριακή διαμάχη μπορεί να περιλαμβάνει πόρους που θα μπορούσαν να προσφέρουν ιστορικά πλεονεκτήματα σε όποιον τα ελέγχει.

Για άλλη μια φορά, ακούγονται σαν λογικοί υπολογισμοί. Αλλά είναι πραγματικά; Θα επιτρέψω στα μεγάλα αποθέματα φυσικού αερίου τα οποία έχουν τη δυνατότητα να βοηθήσουν οποιαδήποτε χώρα να εξασφαλίσει ένα καλύτερο μέλλον για τον λαό της.

Η εξοικονόμηση και τα έσοδα θα επιτρέψουν άνευ προηγουμένου επενδύσεις στην εκπαίδευση, την υγειονομική περίθαλψη, τις μεταφορές και άλλες υποδομές, δημιουργώντας περισσότερες και καλύτερες θέσεις εργασίας και αναγκάζοντας αμέτρητους ανθρώπους από τη φτώχεια. Ακόμη και τα τέλη διαμετακόμισης από τη φιλοξενία ενός διεθνούς αγωγού μπορούν να παρέχουν σημαντικό εισόδημα, και όσο περισσότερο διασχίζει ο αγωγός, τόσο υψηλότερα είναι τα τέλη.

Αλλά θα έλεγα ότι, όπως συνέβη κατά τον Ψυχρό Πόλεμο, τόσο η Ελλάδα όσο και η Τουρκία θα έπρεπε να λάβουν περισσότερο υπόψη τις μεγαλύτερες – στην πραγματικότητα, πολύ μεγαλύτερες – εκτιμήσεις.

Θανάσιμη απειλή

Και όλα αυτά έχουν να κάνουν με την κλιματική αλλαγή. Αυτή η πρόκληση αποτελεί θανάσιμη απειλή, όχι μόνο για τους Έλληνες και τους Τούρκους, αλλά και για τον ίδιο τον ανθρώπινο πολιτισμό. Και σε αντίθεση με τη Σοβιετική Ένωση, αυτή δεν είναι μια πολιτική-στρατιωτική δύναμη που μπορεί να αποφευχθεί, να υποτιμηθεί.

Ούτε μπορούμε να το περιμένουμε και να ελπίζουμε ότι, όπως και η ΕΣΣΔ, η κλιματική αλλαγή θα διαλυθεί από τα δικά της ελαττώματα. Όχι, θα σώσουμε τον πλανήτη μας δουλεύοντας μαζί για να αποκαταστήσουμε τη ζημιά που έχουμε κάνει με την άντληση ατελείωτων ρευμάτων άνθρακα στην ατμόσφαιρα.

Μπορούμε να το κάνουμε μόνο μειώνοντας δραστικά τις εκπομπές και αυτό μπορεί να επιτευχθεί μόνο με τη μετάβαση σε ανανεώσιμες πηγές ενέργειας και καθαρότερα, πιο πράσινα καύσιμα. Και είτε αρέσει είτε όχι, καθώς οι μεγάλες Μεσογειακές δυνάμεις, η Ελλάδα και η Τουρκία έχουν τεράστιους ρόλους να διαδραματίσουν σε αυτήν τη διαδικασία – και ως εκ τούτου τεράστιες ευθύνες. Όπως και στο ΝΑΤΟ, και οι δύο θα αναμένεται να τραβήξουν τα αντίστοιχα βάρη τους.

Ο χρόνος είναι σωστός για μια νέα προσπάθεια

Προηγούμενες απόπειρες συμφιλίωσης ήταν πάντα ελλιπείς ή εκτροχιασμένες, αλλά υπάρχει λόγος να ελπίζουμε ότι ο χρόνος είναι σωστός για μια νέα προσπάθεια και ότι ορισμένοι από τους βασικούς παίκτες βρίσκονται στο σωστό δρόμο.

Η σύνοδος κορυφής του ΝΑΤΟ την περασμένη εβδομάδα, για παράδειγμα, είδε τον πρόεδρο των ΗΠΑ Τζο Μπάιντεν να σημειώνει πολύ διαφορετικές σημειώσεις από τον προκάτοχό του, Ντόναλντ Τραμπ, τονίζοντας τη δυνατότητα της συμμαχίας να επηρεάσει μια ευρεία ποικιλία γεωπολιτικών θεμάτων.

Οι συναντήσεις του στο περιθώριο της συνόδου κορυφής περιελάμβαναν μια συνάντηση με τον Τούρκο ομόλογό του, Ρετζέπ Ταγίπ Ερντογάν, ο οποίος αργότερα δήλωσε ότι άνοιξε μια «νέα εποχή» εποικοδομητικών δεσμών. Εάν αυτό αποδειχθεί αλήθεια και η Άγκυρα θέλει πραγματικά να επισκευάσει τις σχέσεις της με την Ουάσιγκτον, θα μπορούσε να έχει θετικές επιπτώσεις, όχι μόνο για την ελληνοτουρκική συμφιλίωση, αλλά και για μια ειρηνική επίλυση του Κυπριακού.

Ως γείτονες σε αυτόν τον χώρο και de facto εταίροι στην εκστρατεία για τη μείωση των εκπομπών, η Ελλάδα και η Τουρκία θα μπορούσαν να μεγιστοποιήσουν την απόδοση των προσπαθειών τους, τόσο ατομικά όσο και σε συνεργασία.

Δεδομένης της σημασίας της πληροφορίας και του ρυθμού με τον οποίο αυξάνεται η ικανότητά μας να τις συλλέγουμε λόγω της τεχνολογίας, θα μπορούσαν να ξεκινήσουν να ανταλλάσουν δεδομένα.

Για σχεδόν οτιδήποτε έχει κατασκευαστεί, εγκατασταθεί ή λειτουργεί στη θάλασσα, η εκ των προτέρων γνώση των καιρικών συνθηκών, παλίρροια, ρεύματα, θερμοκρασίες νερού, επίπεδα αλατότητας κ.λπ., μπορεί να είναι καθοριστικής σημασίας για τον σχεδιασμό, την απόδοση και την προστασία τόσο των ανθρώπων

όσο και των περιβάλλον.

Στην τελική ανάλυση, τόσο η Ελλάδα όσο και η Τουρκία έχουν τα πάντα να κερδίσουν, και τίποτα ή σχετικά λίγο να χάσουν, συνεργαζόμενοι σε κάθε ευκαιρία, αλλά ειδικά σε διάφορες μορφές ενέργειας. Όπως και με τις αντίστοιχες αποφάσεις τους να ενταχθούν στο ΝΑΤΟ, αυτό απαιτεί σαφή ανάλυση και ρεαλιστική χάραξη πολιτικής, για την επίτευξη, την προώθηση, την υπεράσπιση και την εφαρμογή ορισμένων ιστορικών συμβιβασμών.

Why hybrid cars are popular in an increasingly electric world

By Kyle Stock Bloomberg

Confession: I’m an auto writer and I drive one of the world’s

most boring vehicles.
It’s a minivan and a hybrid, though not a particularly robust one.
The 2018 Chrysler Pacifica manages just 30 miles on a charge.
Did I mention it’s white?
While my Tesla-driving neighbour may snicker, my dad-math is simple and sanguine: my crew seldom rolls more than 20 miles in a day.
Even with a standard outlet, we can fully recharge the Pacifica’s meagre battery overnight and start again the next day, cruising on the electric motor on the eight-mile soccer commute or the 12-mile Home Depot lap.
On the rare road trip, we burn some fossils.
All told, we buy gas about four times a year.
Electric vehicles are killing the gas-powered car – even faster than expected – but they are also running roughshod over hybrid vehicles like mine, their cranky older siblings.
In America, sales of fully electric vehicles eclipsed those of plug-in hybrids four years ago and have steadily pulled away since.
Americans bought four EVs for every hybrid in the first quarter of this year.
In Asia, hybrids lost the lead to EVs almost six years ago and the gap is far wider.
I get it, no one wants to do dad-math while they’re standing on the sales lot.
With a purchase that big, the heart wants what the heart wants – namely something new and exciting.
A hybrid, increasingly, is a flip phone in an iPhone world.
Here’s the thing, though: hybrids are bonkers good these days.
The nice thing about writing about the auto industry is that I get to drive a lot of different vehicles – “press cars” in the industry lexicon.
The first-hand experience is helpful when interviewing auto executives, and one of the best ways to stay familiar with what they’re making.
Lately, my driveway has been a parade of excellent hybrids.

Right now, it’s a Toyota Highlander that is steadily posting 35 miles to a gallon.
Before that, there was the Hyundai Sonata, Kia Sorento and a sublime BMW 530e.
Some, like my Pacifica, can be plugged in and charged, but many generate their electricity exclusively by dragging off the car’s momentum when it slows.
In the industry argot, the former are plug-in hybrid electric vehicles, or PHEVs, and the latter are hybrid electric vehicles, or HEVs. Their much cooler, electric-only cousins are known as battery electric vehicles, or BEVs.
Nothing with an “H” in the acronym carries any gravity in the Tesla-sphere, but they all quietly nudged the needle on carbon emissions.
And they’re all a little more fun to zip around in than their combustion cousins.
The standout of late was the Toyota RAV4 Prime, which goes for 42 miles before the spark plugs flare up and the tiny explosions start.
That’s top of the hybrid class these days, and more than enough for the average US commute.
And on a road-trip, it entirely cancels out the biggest EV bugaboo: range anxiety.
The combustion engine on a car like the RAV4 Prime is like a standby package of hot dogs at a barbecue or a well-rested starting pitcher sitting in the bullpen.
Don’t think of it as a gas vehicle with a trickle of electrons, but as an EV with a robust Plan B.
True, it lacks the tech smugness of a silent, sentient Tesla, but the tradeoff is pretty good.
And I’m not the only one who thinks so – the rigs are selling like ice cream at the beach, according to Samantha Groot, Toyota general manager of vehicle marketing.
In the first quarter of this year, nearly one in four vehicles Toyota sold in the US was some form of hybrid, up from 12% a year earlier.
Honda is part of the acceleration, as well.

The share of customers buying its hybrid CR-V SUV surged 10-fold this spring.
Zombies With Batteries In Europe, the Middle East and Africa, more stringent emissions thresholds in the first quarter boosted plug-in hybrid sales ahead of purely electric vehicles for the first time in nearly three years, according to BloombergNEF.
In America, EVs stayed far ahead in that period, but there's some evidence the chimera vehicles gained back some ground in the second quarter.
Combination gas and electric vehicles accounted for 6% of US vehicle registrations in April, more than double the share of fully electric rigs, according to IHS Markit.
This isn't coming from Gen Z early adopters.
The new wave of hybrid buyers tend to be older, and many of them live in the South and Midwest, according to IHS.
In short: it's regular old car people making slightly more pragmatic (and greener) decisions.
Tesla surely doesn't care, but rest assured this stat isn't lost on other auto executives.
In the race to EV supremacy, the slow lane will be stacked with better and better hybrids.
So don't pour one out for the Prius just yet.
It's still doing just fine, and is increasingly in good company.
Just this week, Ferrari unveiled its second plug-in hybrid.
It's a lot like my minivan, save for the 205 miles-per-hour bit.

Oil survey reveals a divide

on when global demand will peak

The accelerating shift to cleaner energy poses a challenge for global oil demand in the next decade, according to a Bloomberg Intelligence survey, but responses were divided as to whether consumption will return to pre-pandemic highs.

About 39 percent of respondents see demand slightly above the pre-COVID level of 100 million barrels a day in 2030, while 30 percent expect consumption to fall short of that mark. With fuel efficiency, electric vehicles and green reforms enacted in the wake of the pandemic creating headwinds for crude sales, OPEC is likely rein in output for a prolonged period to avoid oversupply, BI said.

Some forecasters expect crude demand to peak sooner rather than later. Goldman Sachs Group Inc. sees consumption topping out in 2026, while BP has said the era of demand growth may already be over. The International Energy Agency has taken a

more conservative view, predicting a plateau around 2030.

Lagarde tells EU leaders they must ‘water the green shoots’

Bloomberg / Brussels

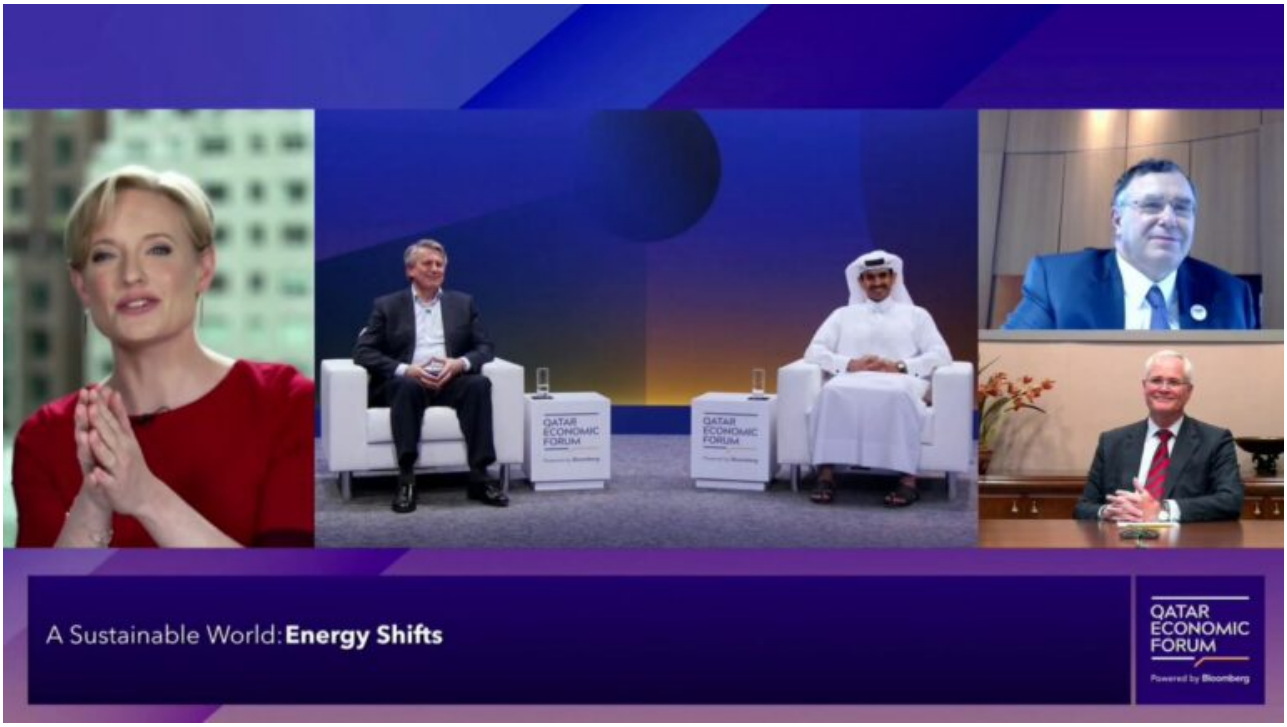
European Central Bank president Christine Lagarde urged leaders to keep their fiscal purse strings loose, warning that a premature brake on stimulus measures could derail a nascent recovery.

At a summit of European Union leaders in Brussels yesterday, Lagarde said continued support is needed to avoid the pandemic leaving large scars on the economy, according to an official familiar with her remarks.

The president cited the example of the aftermath of the great financial crisis, when a rebound failed to be sustained because “green shoots were not watered,” according to the official, who asked not to be named as the meeting was

private.
European economies are starting a robust recovery on the back of an accelerating vaccination campaign. With coronavirus infections dropping, and booming demand triggering a spike in prices, pressure is building up in some quarters for the ECB to considering exiting emergency stimulus, and for governments to consider how to reduce debt burdens.
ECB officials Isabel Schnabel and Pablo Hernandez de Cos used public events on Thursday and yesterday to emphasise that even if the economy is able to recoup the output lost to the pandemic crises by early next year, it won't be until at least 2023 that growth trends return to the pre-crisis path.
"The goal has to be to recover – not to levels before the crisis – but those we would have reached without the existence of this crisis," De Cos, who is governor of the Bank of Spain, said yesterday.
In her comments to leaders, Lagarde reiterated her view that a looming increase in inflation this autumn will be temporary and underlying price pressures remain subdued. She said that more dynamic and sustainable growth is needed, and that monetary policy will continue to play a role in bolstering confidence.
"Upward pressures, most notably the comparison with last year's data when a sales tax holiday in Germany applied from July to December, will almost certainly send the headline inflation reading soaring above 2% from August," a Bloomberg Economics statement said.
The ECB predicts that euro-area output will return to pre-pandemic levels by the first quarter of 2022, one quarter earlier than expected in the spring. The risks to the outlook are now balanced.
Lagarde urged leaders to advance the EU's capital markets and banking union, after years of talks failed to yield substantial progress. No breakthroughs were seen in yesterday's summit either, as this autumn's election in Germany has put discussions among euro-area officials on hold.

QP received offers for double the amount of equity available in NFE project: Kaabi



Tribune News Network
Doha
Minister of State for Energy Affairs and Qatar Petroleum President and CEO HE Saad Sherida Al Kaabi said that Qatar Petroleum has received offers for double the equity available to potential partners in the bidding process for the North Field East project.
Speaking at the Qatar Economic Forum (QEF), Kaabi stated that Qatar Petroleum was in the process of evaluating commercial offers received for participation in the largest LNG development in the world with a capacity of 32 million tonnes per annum of LNG, and that Qatar Petroleum had received offers

that cover double the offered equity stake.
As part of the same process, Kaabi said, Qatar Petroleum had received offtake commitments, sales and purchase agreements for double the 32 million tonnes per annum volume on offer.
The NFE project is unique in the LNG world because of its advanced environmental characters, including significant carbon capture and sequestration capacity.
These remarks were made during a Qatar Economic Forum session on ‘Energy Shifts’ in which Kaabi was a panellist along with Royal Dutch Shell CEO Ben van Beurden, TotalEnergies Chairman and CEO Patrick Pouyanne and ExxonMobil Chairman and CEO Darren Woods.
The session, which was also broadcast on Bloomberg TV and its media platforms focused on the energy transition and the underlying climate change concerns driving net zero emissions targets.
Discussing the ongoing energy transition, Kaabi said, “We see natural gas and the energy transition joined at the hip. Gas and LNG is part of the solution for a longer-term transition. We are investing the majority of our capex in LNG, but we are also investing in renewables such as solar, here in Qatar and also worldwide.”
Kaabi, however, raised concerns about underinvestment in oil and gas projects, given the focus on energy transition.
“Gas and LNG are important for the energy transition. However, there is a lack of investment in oil and gas projects that could drive energy prices higher. It could cause a significant shortage in gas between 2025 and 2030 that, in turn, could cause a spike in the gas market,” he said.
On carbon capture and sequestration, Kaabi highlighted the fact that Qatar started decarbonising its LNG a while ago and that it currently captures and sequesters two million tonnes per annum of CO 2, which will grow to 9 million tonnes by 2030.
“We are doing it very responsibly and we will be part of the solution for the long term,” Kaabi said.
The panellists warned that energy transition is not only about

the producers, but also about end-users and their consuming behaviours.

Kaabi also highlighted the fact that the energy transition needs to take into consideration the requirements of the developing world, including the 0.8-1.0 billion people who are deprived of electricity and basic fuels today to ensure a balanced approach that takes human development and economic growth in these developing nations into account, and that actions taken need to be responsible for the collective wellbeing of all of humanity.

Kaabi said that in the effort to put policies in place to reduce CO2 level, there is a challenge represented by the bill that has to be paid to bridge that gap, and called for collective work for a carbon pricing mechanism that is fair and equitable and that can be applied seamlessly on a global basis.

The Qatar Economic Forum, Powered by Bloomberg, brings together some of the world's leaders and the most influential thinkers, executives, and policymakers to prepare a blueprint for the next stage of global growth. Discussion themes during the Qatar Economic Forum cover issues such as leadership in a post-pandemic world changes to the human-technology nexus, a more sustainable global economy, markets and investing, power and trade flows, and the future of commerce.

GREECE-TURKEY: ENERGY AS A MECHANISM FOR COOPERATION

“Climate crisis gives Greece and Turkey opportunity for ‘historic compromises”

By: Roudi Baroudi – Washington D.C. 23 June 2021

Greece and Turkey have one of the world’s most complicated relationships. We all know the history, although many of the details are contested by dueling narratives. However we got here, some indisputable facts are clear. Two former long-time enemies were thrown together as allies by the Cold War, when both of them joined NATO, but have generally remained at odds over a long list of issues.

The essential lesson from this simple synopsis is that Greece and Turkey joined the Atlantic alliance for the same core reason: each viewed their feud as a lesser threat than the one posed by the Soviet Union, which was potentially existential. At the end of the day, and despite both age-old resentments and ongoing tensions, successive governments – including military juntas – of both countries abided by the same rational analysis for decades.

Both are still NATO members, but the Soviet threat is no more, replaced only partially by a far weaker Russia. To some extent, this has led to a resumption of Greco-Turkish friction, especially over their maritime boundaries in the Mediterranean. And this time, there is much more than either

pride or territory at stake. Since huge amounts of offshore natural gas have been discovered in several parts of the Eastern Med, the border dispute may well involve resources that could confer historic advantages on whoever controls them.

Once again, these sound like rational calculations. But are they really? I will allow that large reserves of natural gas have the potential to help any country secure a better future for its people. The savings and revenues would allow unprecedented investments in education, healthcare, transport, and other infrastructure, creating more and better jobs and lifting countless people out of poverty. Even the transit fees from hosting an international pipeline can provide significant income, and the more territory a pipeline crosses, the higher the fees.

But ladies and gentlemen, I would submit that, as was the case during the Cold War, both Greece and Turkey would do well to take fuller account of larger – in fact, much, much larger – considerations. And all of them have to do with climate change. This challenge constitutes a mortal threat, not only to Greeks and Turks, but also to human civilization itself. And unlike the Soviet Union, this is not a politico-military power that can be deterred, mollified, or reasoned with. Nor can we wait it out and hope that, like the USSR, climate change will be torn apart by its own flaws.
No, we will only save our planet by working together to undo the damage we have done by pumping endless streams of carbon into the atmosphere. We can only do that by drastically reducing emissions, and that can only be accomplished by transitioning to renewables and cleaner, greener fuels. And like it or not, as major Mediterranean powers, Greece and Turkey have enormous roles to play in this process – and therefore enormous responsibilities. As in NATO, both will be expected to pull their respective weights.

As a result of all this, Greece and Turkey once again face a

common and potentially existential threat. Energy is a crucial consideration in combating this threat, but the acreage that matters most in the long term is no longer on the seafloor. Instead, it is on the surface, where offshore wind and solar parks figure to provide much of the electricity required to reduce, and eventually end, reliance on hydrocarbons.
The sea will abet decarbonization efforts in other ways, too, by hosting multiple clean energy activities and technologies that help reach the Paris Agreement goal of “Net Zero” carbon emissions by 2050. The options include wave, rain, and tidal power; undersea geothermal; and, yes, natural gas, which is cleaner than other fossil fuels and can be expected to persist for a considerable time as a transition fuel. In addition, no coastal country can ignore the potential of “Blue Carbon”: if we restore and maintain the health of coastal and marine ecosystems, they will naturally remove more and more carbon from the atmosphere.

But here is the thing. Implementation of offshore energy projects will be slowed, or even indefinitely postponed, if Greece and Turkey continue on their current course. Even if they agree to reduce tensions but fail to settle or suspend their differences, the uncertainty will steer many investors to less troubled waters. By contrast, if they find a way to truly put the past behind them, both countries’ decarbonization efforts will be vastly more attractive. As a result of an earlier and stronger start, they will also be more effective – exponentially so if they take the next step and actively cooperate, especially on maritime issues.

The sea is a wondrous place filled with many things we need, many we simply love, and others that we have yet to discover. It is also, however, a veritable and pitiless force of nature: what it cannot violently destroy in an instant, it will inevitably erode, undermine, and dissolve over time. We now have technologies to make far more – and far more responsible – use of the sea than ever before, but its very nature makes

most undertakings more difficult and potentially dangerous than on land. And as any sailor knows, the best tools we have to predict, avoid, and/or overcome whatever the sea throws at us are information and cooperation.

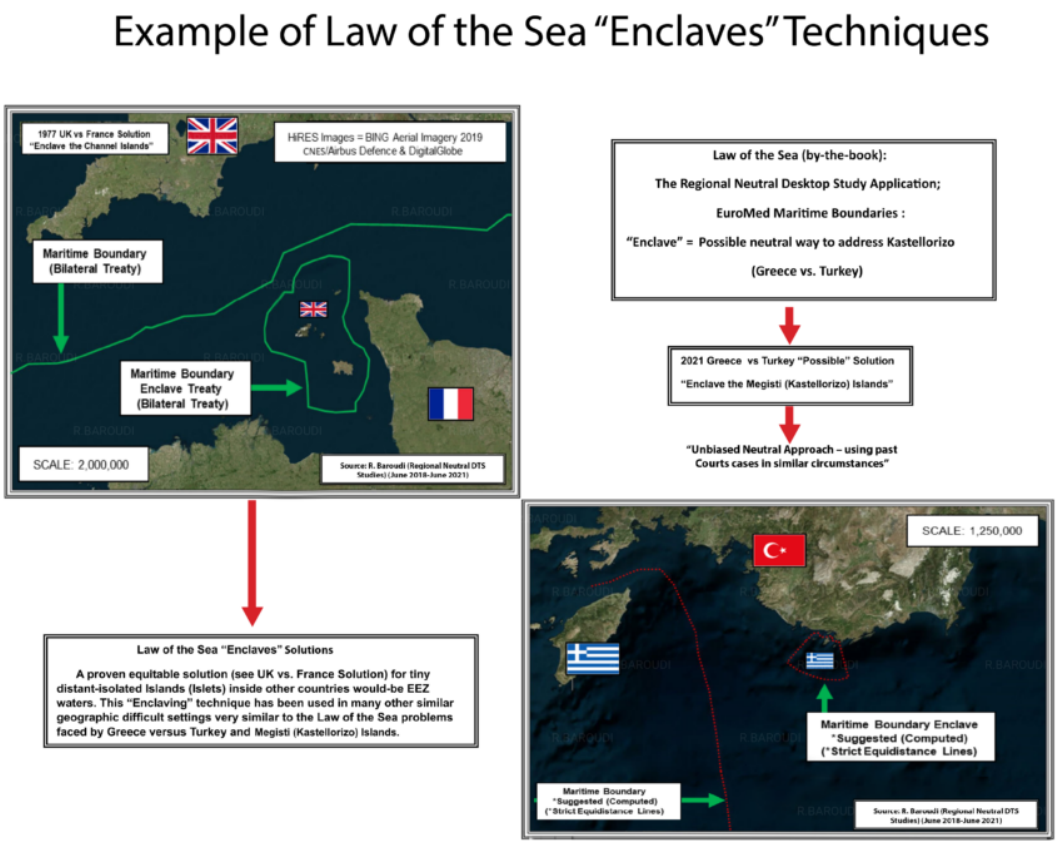
As neighbors in this shared space and de facto partners in the campaign to reduce emissions, Greece and Turkey could maximize the return on their efforts, both individual and combined, by working together. Given the importance of information and the rate at which our ability to gather it is growing due to technology, the natural place to start would be comprehensive data-sharing. For almost anything built, installed, and/or operated at sea, advance knowledge of weather conditions, tides, currents, water temperatures, salinity levels, etc., can be crucial for planning, performance, and the protection of both human beings and the environment. Wind and solar parks are no exceptions, and neither are numerous other activities in the Blue Economy, including maritime transport, aquaculture, conventional fisheries, tourism, seabed mining, and bio-prospecting.

In addition to activating commercial, efficiency, safety, and environmental gains, cooperation in these fields would also help build trust, but operational coordination and regulatory harmonization would go even further. In the best-case scenario, Greece and Turkey would both reap significant benefits by expanding into joint compliance and enforcement work, streamlining cross-border trade and investment, easing the migrant crisis, and addressing numerous other issues of mutual concern.

To get there, both Athens and Ankara need to take strategic decisions which, one way or another, insulate their present and future relationship against all extraneous considerations. And more than one clock is ticking. In addition to the 2050 target date for Net Zero carbon, an even more pressing deadline attaches to the region’s natural gas prospects. In a report for consideration during the UN Climate Conference, COP

26, at Glasgow in November, scientists have recommended that if we are to meet the 2050 goal, development of new oil and gas fields should not be permitted beyond the end of this year. It is too early know whether that deadline will be adopted, but the writing is on the wall: apart from those that have already started – Egypt, Israel, and to some extent Cyprus – if East Med countries want to profit from their offshore hydrocarbons, they need to make meaningful progress very soon.

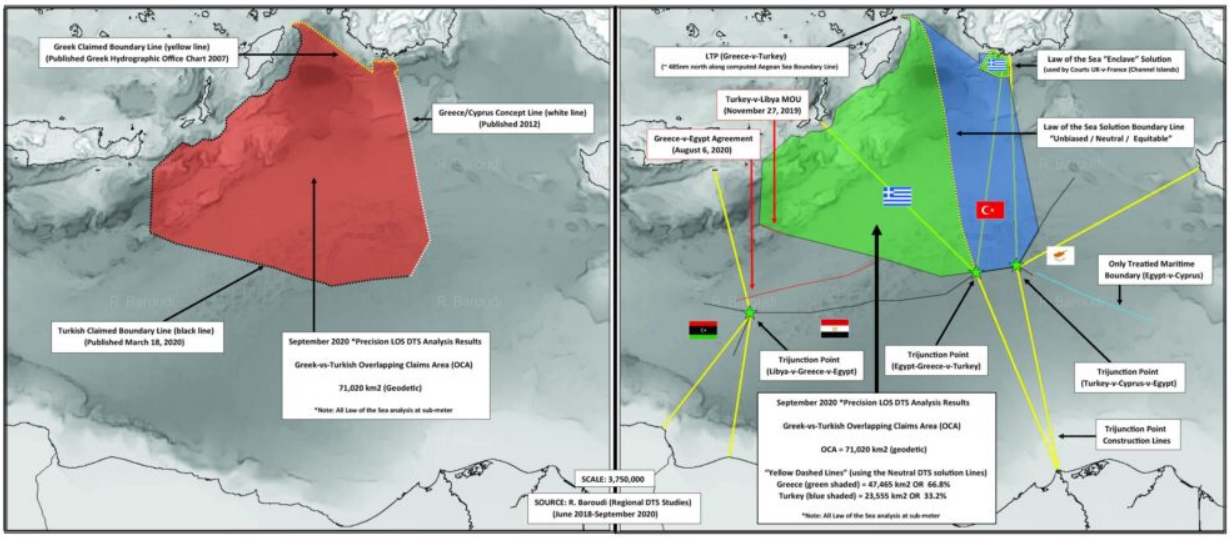
For several countries in the region, the primary obstacle is that most of its maritime boundaries remain in dispute or otherwise unresolved, so their claimed Exclusive Economic Zones overlap. With Greece and Turkey, the overlap is considerable.



But even this obstacle can be surmounted if there are sufficient amounts of both goodwill and self-interest. Both Greece and Turkey need to make the most of the Blue Economy, but neither will realize its full potential unless and until

it helps the other do the same. The UN Convention on the Law of the Sea, or UNCLOS, lays down a comprehensive assortment of legal and scientific standards for the fair and equitable drawing of borders at sea, and these apply to both member and non-member states. Whatever mechanism the parties use to settle their boundary dispute, whether it’s direct negotiations, an international court, or some form of arbitrations, the same rules apply.

Greece vs. Turkey Overlapping Claims Analysis *(Sketch for Illustration purposes only)* - 2021



Ideally, Greece and Turkey would mount an all-out effort to recognize the relevant limits of their respective EEZs. It may be too late to succeed before a moratorium on new gas development is declared, but even if that is the case, they will still need in certain areas EEZ clarity to maximize both their offshore renewables and the non-energy components of their Blue Economy industries. In addition, they also have the option of circumventing the EEZ issue, allowing them to develop subsea gasfields and share the proceeds, while temporarily putting their territorial dispute in abeyance. Even if that fails too, the mere attempt might improve relations, establishing a basis for the cooperation described above.

Previous attempts at reconciliation have always fallen short or been derailed, but there is reason to hope that the time is

right for a new effort, and that some of the key players are in the right frame of mind. Last week's NATO summit, for instance, saw US President Joe Biden hit very different notes than his predecessor, Donald Trump, by stressing the alliance's potential to influence a wide variety of geopolitical issues. His meetings on the sidelines of the summit included one with his Turkish counterpart, Recep Tayyip Erdogan, who later described their conversation as having opened a "new era" of constructive ties. If that turns out to be true and Ankara really wants to repair its relations with Washington, it could have positive ramifications, not only for Greco-Turkish reconciliation, but also for a peaceful resolution of the Cyprus issue.

In the final analysis, both Greece and Turkey have everything to gain, and nothing or relatively little to lose, by cooperating at every opportunity, but especially on various forms of energy. As with their respective decisions to join NATO, this will require clear-headed analysis and pragmatic policymaking, but also the sangfroid to reach, promote, defend, and implement some historic compromises.
Roudi Baroudi has more than 40 years of experience in the energy business and has helped design policy for major international oil companies, sovereign governments, and multilateral institutions. He currently serves as CEO of Energy and Environment Holding an independent consultancy based in Doha, Qatar.

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international oil companies, sovereign governments, and multilateral institutions. The author or co-author of several books, his latest was “Maritime Disputes in the Mediterranean: The Way Forward” (2020), and his next – a study of the region’s Blue Economy prospects in the post-carbon era – is expected to come out in the first half of 2022. He currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha, Qatar.

Empty oil tanks at key storage hub show speedy demand rebound

Crude storage tanks that were brimming a year ago when the pandemic grounded flights and kept drivers at home are

beginning to empty in the main U.S. distribution hub, the latest sign of strengthening demand in the world's biggest oil-consuming country.

For the first time since before the pandemic, empty tanks are being offered for lease at Cushing, Oklahoma, the delivery point for West Texas Intermediate oil futures. At least 1.4 million barrels of storage is up for rental starting in July, for roughly 12 cents per barrel a month, said Steven Barsamian, chief operating officer at storage brokerage Tank Tiger. That's a stark contrast to at least 60 cents charged when there was little space left about a year ago.

Americans are taking to the roads and skies at increasing numbers as the summer nears and the country emerges from months of lockdowns, with oil refiners speeding up fuel making to meet the rising demand. This week, California, America's most populous state, re-opened its economy, while New York ended most of its curbs.

It's a dramatic turnaround from a market crash that saw traders storing unwanted crude in tankers at sea, and U.S. producers at one point having to pay for customers to take their oil last year.

Meanwhile, shale producers are sticking to their pledges to focus on balancing their books and boosting returns to shareholders, rather than increasing output. U.S. production is 15% below its peak last year, limiting flows to the storage center.

So, traders are rapidly draining their storage tanks to supply refineries with every barrel of crude feedstock they need.

Empty tanks are typical of a market where demand is outpacing supplies and traders are getting a premium on the nearest deliveries, making it unprofitable to keep oil in storage – a pattern known as backwardation.

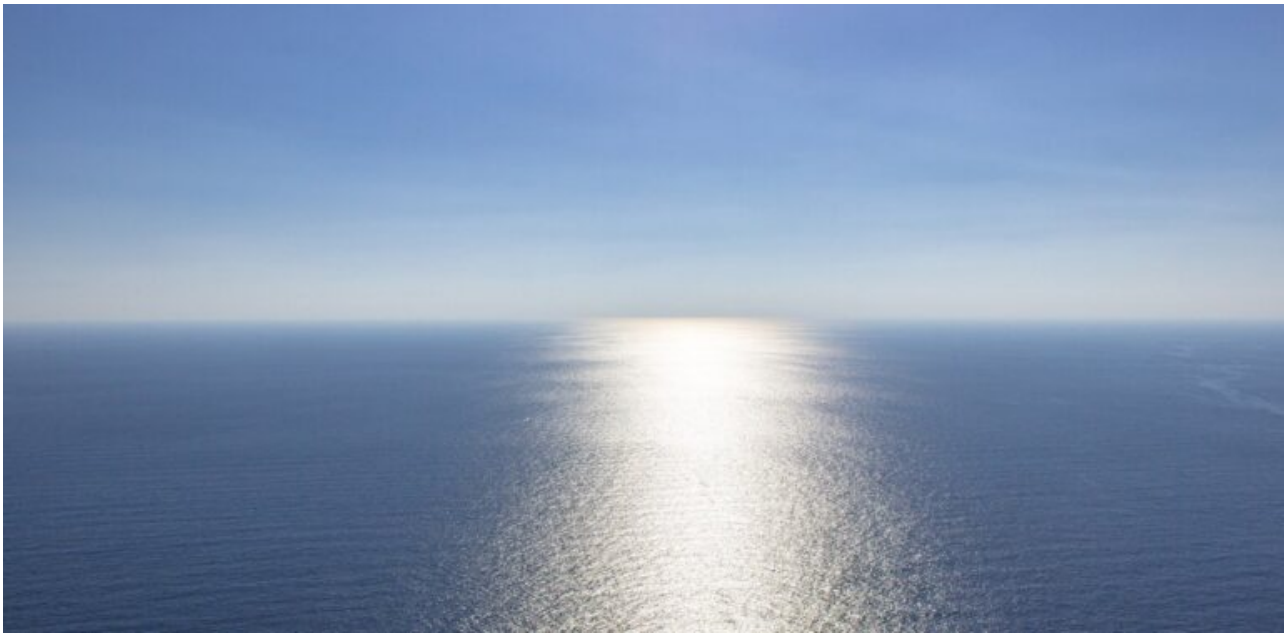
A year ago, when traders were storing as much oil as possible to wait for better prices, the nearest deliveries for WTI were selling at a discount to longer-dated ones. That structure is known as contango.

These patterns affect especially the commercial storages used in speculative trading, such as the ones in Cushing.

“Typically, in a backwardated market, its the storage that isn’t being used for operational purpose like the ones in Cushing, Oklahoma, that get emptied out first,” Barsamian said. “Storage at most other locations such as in Houston and Midland in Texas are used for operational purposes and get emptied out later.”

Traders might see more of the bottom of tanks across America in the coming months. Global oil demand is expected to recover to pre-pandemic levels late next year, according to the International Energy Agency. The agency sees a supply shortfall starting from the second half of this year, with OPEC and its allies still keeping part of their production capacity offline.

Roudi Baroudi: Μπλε οικονομία στη Μεσόγειο



Οι χώρες της Μεσογείου πρέπει να είναι από τους μεγαλύτερους νικητές στη μετάβαση από τα ορυκτά καύσιμα στις ανανεώσιμες πηγές ενέργειας, δήλωσε ειδικός σε θέματα ενέργειας την Τετάρτη σε ένα βασικό συνέδριο πολιτικής.

«Εδώ στην περιοχή της Μεσογείου, η μετα-άνθρακα εποχή έχει στην πραγματικότητα τεράστιες ευκαιρίες όσον αφορά την μπλε οικονομία», δήλωσε ο βετεράνος της βιομηχανίας **Roudi Baroudi** στο εικονικό All Things Energy Forum. Πρόσθεσε ότι ενώ η συμβατική αιολική και ηλιακή ενέργεια θα έχουν «βασικό ρόλο να διαδραματήσουν», η εγγύτητα της θάλασσας προσέφερε μια άλλη διάσταση.

“Υπάρχουν και άλλες πολλά υποσχόμενες ενεργειακές τεχνολογίες, όπως η βροχή, τα κύματα και η παλιρροϊκή ενέργεια, καθώς και η υποθαλάσσια γεωθερμία”, δήλωσε ο κ. Baroudi, ο οποίος έχει διετελέσει σύμβουλος σε κυβερνήσεις, πολυμερείς οργανισμούς και μεγάλες διεθνείς εταιρείες για την ενεργειακή πολιτική.

«Μερικές από τις πιο υποσχόμενες αντικαταστάσεις για τα ορυκτά καύσιμα περιμένουν στη θάλασσα, αν μόνο έχουμε τη σοφία και την προνοητικότητα να τις αναπτύξουμε».

Η μεγάλη εγγύτητα μιας μεγάλης θάλασσας όπως είναι η Μεσόγειος δίνει στα παράκτια κράτη της βασικά πλεονεκτήματα σε σχέση με άλλα κράτη που είναι εγκλωβισμένα στην ξηρά, εξήγησε, επειδή

έχουν πολλές περισσότερες επιλογές για παραγωγή ηλεκτρικής ενέργειας χαμηλής ή χωρίς άνθρακα.

Ο 40χρονος βετεράνος της περιφερειακής ενεργειακής σκηνής προέβλεψε ότι με ισχυρή ηγεσία, **οι περιφερειακές χώρες θα μπορούσαν να χρησιμοποιήσουν αυτό το δυναμικό για την πλήρη ηλεκτροδότηση όλων των κατοικημένων περιοχών τους.**

Αυτό το είδος πρόσβασης, στην ηλεκτρική ενέργεια, αποτελεί βασική προϋπόθεση για το είδος της οικονομικής ανάπτυξης που θα βοηθήσει εκατομμύρια ανθρώπους – ακόμη και δεκάδες εκατομμύρια – από τη φτώχεια», δήλωσε.

«θα μειώσει επίσης τη ροή των Αφρικανών μεταναστών που δεσμεύονται για την Ευρώπη δημιουργώντας νέες οικονομικές ευκαιρίες για αυτούς στην έδρα τους».

Ο κ. Baroudi προειδοποίησε, ωστόσο, ότι παρέμειναν σημαντικά εμπόδια εάν η περιοχή επρόκειτο να πραγματοποιήσει το πλήρες δυναμικό της για υπεράκτια παραγωγή ενέργειας, κυρίως επειδή περίπου τα μισά από τα θαλάσσια σύνορα της Μεσογείου παραμένουν αδιευκρίνιστα.

Όπως και με τις προοπτικές για υπεράκτιο φυσικό αέριο, εξήγησε, οι επενδυτές αποφεύγουν τέτοια διαφιλονικούμενα σύνορα επειδή η αμφισβητούμενη ιδιοκτησία μιας περιοχής ενέχει πολύ μεγάλο κίνδυνο. Για αυτόν τον λόγο, είπε, και επειδή η πίεση χτίζεται για μορατόριουμ για την ανάπτυξη νέων πεδίων πετρελαίου και φυσικού αερίου, **οι περιφερειακές χώρες χρειάστηκαν να υιοθετήσουν τη διπλωματία και να καταρτίσουν συνθήκες που ορίζουν τις αντίστοιχες αποκλειστικές οικονομικές ζώνες τους.**

Δεδομένου ότι το φυσικό αέριο αναμένεται να παραμείνει βασικό καύσιμο μετάβασης για τουλάχιστον δύο δεκαετίες, εξήγησε, περιφερειακές χώρες θα μπορούσαν επίσης να κερδίσουν δισεκατομμύρια έσοδα από υπεράκτιες καταθέσεις – αλλά ορισμένες εξακολουθούν να χρειάζονται συμφωνίες ΑΟΖ για να ξεκινήσουν.

Δεν υπάρχει ανάγκη να είναι πιο πιεστική, ειδικά επειδή ο διάλογος και οι συμβιβασμοί που απαιτούνται όχι μόνο θα ανοίξουν την ανάπτυξη του φυσικού αερίου, αλλά θα έθεταν επίσης τα θεμέλια για στενότερη συνεργασία σε άλλους τομείς – αυτό ακριβώς απαιτεί η Μπλε Οικονομία για να αξιοποιήσει πλήρως τις δυνατότητές του», δήλωσε ο κ. **Baroudi,** ο οποίος είναι επί του παρόντος διευθύνων σύμβουλος της Energy and Environment Holding, ανεξάρτητης συμβουλευτικής εταιρείας στη Ντόχα.

Τα πλεονεκτήματα από την ηρεμία στη Μεσόγειο

«Ως μπόνους, μια πιο ήρεμη, φιλικότερη Μεσόγειος θα επέτρεπε επίσης την κατανομή ευθυνών και τη συγκέντρωση πόρων και δεδομένων, τα οποία θα βελτιώσουν σημαντικά τα αποτελέσματα σε όλα, από τη μετανάστευση, την πρόγνωση καιρού και την αναζήτηση και διάσωση σε συστήματα προειδοποίησης για τσουνάμι και την προστασία καλωδίων επικοινωνίας», είπε.

«Τότε θα μπορούσαμε απλώς να δούμε ολόκληρη την ευρωμεσογειακή περιοχή να γίνει ένας από τους καλούς γείτονες, ένα μέρος αμοιβαίων στόχων, διευθετημένων παραπόνων και ακόμη και γεωστρατηγικής συνεργασίας.

Τολμώ να το πω, κυρίες και κύριοι, η Μεσόγειος θα μπορούσε να είναι απόλυτα ειρηνική στη ζωή μας".

Η εκδήλωση, της οποίας οι ομιλητές περιελάμβαναν διακεκριμένους ακαδημαϊκούς και ανώτερους ηγέτες επιχειρήσεων και ενέργειας, καθώς και βασικούς κυβερνητικούς υπουργούς, πραγματοποιήθηκε την Τετάρτη.

Ο Roudi Baroudi έχει περισσότερα από 40 χρόνια εμπειρίας στον τομέα της ενέργειας και βοήθησε στη χάραξη πολιτικής για μεγάλες διεθνείς εταιρείες πετρελαίου, κυβερνήσεις και πολυμερείς θεσμούς. Σήμερα υπηρετεί ως Διευθύνων Σύμβουλος της

Ενέργειας και Περιβάλλον Διαθέτοντας ανεξάρτητη συμβουλευτική εταιρεία.