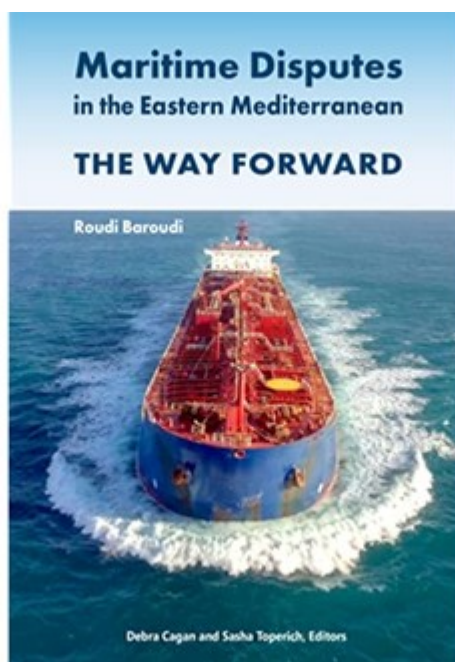


# Dr. Roudi Baroudi's "Climate and Energy in the Mediterranean: What the Blue Economy Means for a Greener Future" book launched at the Athens Energy Dialogues in Athens, Greece.



Dr. Baroudi: "The war in Ukraine has exposed not only Europe's dangerous over-reliance on natural gas and other energy imports from Russia, but also the extent to which disrupting

that relationship could wreak havoc around the world. Ever since Moscow launched its invasion in late February, the European Union has been hesitant to impose sanctions on Russia's energy industry because it lacks other alternatives, and it lacks those alternatives because of a years-long hesitance to maintain a sufficiently diverse basket of sources and suppliers. The continent also suffers from inadequate regasification capacity, which means it cannot fully replace piped gas from Russia with seaborne loads of LNG from other countries.

Mr. Baroudi highlighted that there are solutions for all of these problems, and some are already under way. "Europe could also bolster its energy security by helping to develop the increasingly promising gas fields of the Eastern Mediterranean, the output of which could then be linked by undersea and/or overland pipeline to the European mainland. The utility of these and other moves would also be significantly enhanced by building new storage facilities for both LNG and conventional gas, which would make Europe a lot more resistant to future supply disruptions," said Mr. Baroudi.

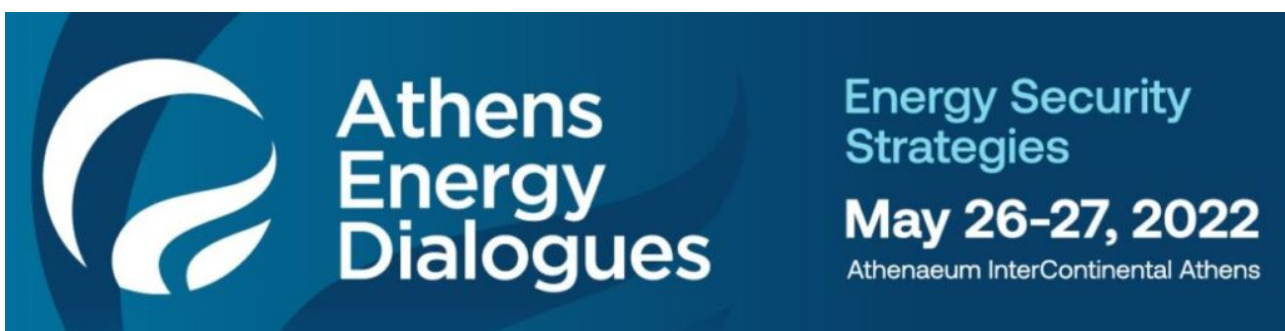
But most importantly in the long term, Europe needs to seize the opportunity presented by the great potential for offshore wind energy in the Mediterranean, since making full use of this potential – just in the coastal waters – could generate at least some 500 MILLION megawatts of electricity: in other words, the same as the entire global nuclear industry".

Full press release available here: <https://lnkd.in/gUTi4zT6>

Dr. Baroudi's book available here: <https://lnkd.in/gp8ePj2j>

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**R. Baroudi (CEO Energy & Environment Holding): “Key” to Europe’s energy independence, Eastern Mediterranean deposits of hydrocarbons and offshore wind farms**



Αθήνα, 27.05.2022 – “Climate change and market instability are the two main parameters in recent years for the global energy market,” highlighted Mr. Roudi Baroudi, CEO of Energy & Environment Holding at his speech on the second day of the 10th Athens Energy Dialogues conference on May 26-27.

According to Mr. Baroudi the goal is a new energy mix that is both environmentally sustainable and economically viable.

Another crucial point is that reliability of cleaner and greener sources are not yet sufficient to fully meet demand, and getting there will require years of planning, investment, and construction. If we take existing technologies offline before newer ones can replace them, the resulting shortages will cause prices to spike, driving up the cost of living and causing whole economies to collapse. On the other hand, if we wait too long to decarbonize the global economy, climate change threatens to inflict even greater damage.

The Russian invasion to Ukraine has changed the geopolitical status quo, according to Mr. Baroudi.

The war in Ukraine, has exposed not only Europe’s dangerous over-reliance on natural gas and other energy imports from Russia, but also the extent to which disrupting that relationship could wreak havoc around the world. Ever since Moscow launched its invasion in late February, the European Union has been hesitant to impose sanctions on Russia’s energy industry because it lacks other alternatives, and it lacks those alternatives because of a years-long hesitance to maintain a sufficiently diverse basket of sources and suppliers.

The continent also suffers from inadequate regasification capacity, which means it cannot fully replace piped gas from Russia with seaborne loads of LNG from other countries.

Mr. Baroudi highlighted that there are solutions for all of these problems, and some are already under way.

“Europe could also bolster its energy security by helping to develop the increasingly promising gas fields of the Eastern Mediterranean, the output of which could then be linked by undersea and/or overland pipeline to the European mainland. The utility of these and other moves would also be significantly enhanced by building new storage facilities for both LNG and conventional gas, which would make Europe a lot more resistant to future supply disruptions,” said Mr. Baroudi.

But most importantly in the long term, Europe needs to seize the opportunity presented by the great potential for offshore wind energy in the Mediterranean, since making full use of this potential – just in the coastal waters – could generate at least some 500 MILLION megawatts of electricity: in other words, the same as the entire global nuclear industry.

The Mediterranean region – including both its EU and non-EU components – can and should be a huge part of this drive for a dual resiliency against economic and environmental challenges alike. European investments in MENA countries’ energy output makes sense for several reasons, including lower labor and other construction costs, as well as more diversified – and therefore more reliable – energy supplies.

About a week ago, the European Commission outlined a new plan to end Europe’s dependence on Russian gas, one that envisions spending of more than 200 billion Euros over the next five years. That is a significant number, but now the plan needs to be funded.

This means that not just the EU itself but also the European Investment Bank, the World Bank, and the IMF – all need to open up their vaults. Needless to say, the private sector would do well to get in on the action as well.

Unfortunately, it is too late to prevent war in Ukraine. But the faster Europe moves effectively to end its reliance on Russian gas, embraces closer partnership with its

Mediterranean neighbors, and achieves the full independence of its foreign policy, the sooner it can help to restore the peace – and prevent similar calamities in the future.

#athensenergydialogues #energy #climate #climatechange  
#renewableenergy #sustainability #climateaction  
#energyindustry #tsomokos

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For any additional information, please contact Ms. Elias Gerafenti, Tsomokos SA, tel. 210 728 9000 & 6970808764, e.gerafenti@tsomokos.gr

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**R. Baroudi: «Απόλυτα εφικτό η Ελλάδα να αποτελέσει στρατηγικό ενεργειακό κόμβο για την Ευρώπη»**



## **newmoney**

*Ένα από τα σημαίνοντα στελέχη της παγκόσμιας ενεργειακής αγοράς εξηγεί πώς προέκυψε η τέλεια ενεργειακή καταιγίδα – Τι λέει για τις άστοχες πολιτικές της Ευρώπης*

Ο Roudi Baroudi έχει 40 χρόνια διεθνή εμπειρία στους τομείς του πετρελαίου και του φυσικού αερίου, των ανανεώσιμων και πράσινων πηγών και των ενεργειακών υποδομών. Η καριέρα του ξεκίνησε από τις Ηνωμένες Πολιτείες το 1978, πέρασε από την Παγκόσμια Τράπεζα, το ΔΝΤ και την Ε. Επιτροπή και τον έφερε στην περιοχή της Ανατολικής Μεσογείου, περιοχή που έχει μελετήσει βαθιά και για την οποία έχει γράψει το βιβλίο με τίτλο «Maritime Disputes in the Eastern Mediterranean: The Way Forward».

Διευθύνων σύμβουλος, πλέον, της Energy & Environment Holding του Κατάρ μετέχει στο 10ο «Athens Energy Dialogues» και

μιλώντας στο newmoney επιμένει ότι μία συνεργασία Ελλάδας και Τουρκίας στον χώρο της ενέργειας είναι και δυνατή και αμοιβαία επωφελής, αν και όχι απολύτως ανώδυνη. Επίσης, προκαλεί αισιοδοξία η πεποίθησή του ότι έχει ξεκινήσει η διαδικασία αποκλιμάκωσης του κόστους της ενέργειας στην Ευρώπη.

-Ποια είναι η εκτίμησή σας για την ενεργειακή κρίση; Πόσο θα κρατήσει; Υπάρχει διέξοδος από αυτή χωρίς τη Ρωσία;

«Προφανώς είναι ένα πολύ σοβαρό πρόβλημα, όχι μόνο για την Ευρώπη, αλλά και για ολόκληρο τον κόσμο, καθώς επηρεάζει τόσες πολλές πτυχές της καθημερινότητας, από την τιμή του ηλεκτρικού ρεύματος έως τη βενζίνη, τις μεταφορές γενικότερα, την τροφική αλυσίδα κ.λπ. Είναι πολύ δύσκολο να προβλέψουμε πόσο θα διαρκέσει, καθώς ο πόλεμος μόλις ξεκίνησε. Η πρόβλεψη μιας ημερομηνίας λήξης είναι δύσκολο εγχείρημα, καθώς τόσο τα προβλήματα όσο και οι λύσεις έχουν πολλά κινούμενα μέρη.

Καταρχάς, το πρόβλημα είναι προϊόν πολλών παραγόντων, όπως:

- οι παλαιότερες αποφάσεις για σταδιακή κατάργηση της χρήσης άνθρακα και πυρηνικών σε ορισμένες ευρωπαϊκές χώρες
- η αποτυχία αποτελεσματικής διαφοροποίησης του συνολικού ενεργειακού καλαθιού της Ευρώπης (που οδηγεί άμεσα στην υπερβολική εξάρτηση από τις ρωσικές προμήθειες, ιδίως από το φυσικό αέριο που μεταφέρεται με αγωγούς)
- οι επακόλουθες επιπτώσεις της πανδημικής κατάρρευσης των τιμών του πετρελαίου και του φυσικού αερίου, που ανάγκασε πολλούς παραγωγούς σε όλο τον κόσμο να κλείσουν, οδηγώντας με τη σειρά του σε ανοδικές πιέσεις στις διεθνείς τιμές όταν η ζήτηση ανέκαμψε.

Ο συνδυασμένος αντίκτυπος όλων αυτών έγινε ακόμη πιο βαρύς από τη συγκυρία: η κρίση έρχεται ακριβώς τη στιγμή που αγωνιζόμαστε να πετύχουμε με τους στόχους απαλλαγής από τις εκπομπές άνθρακα, καταργώντας τα ορυκτά καύσιμα. Έτσι οι ευρωπαϊκές αγορές ενέργειας έμειναν εξαιρετικά ευάλωτες σε



διακοπές εφοδιασμού – ή ακόμα και στην πιθανότητα διακοπής.

Το να ξεσπάσει ο πόλεμος στην Ουκρανία, όταν αυτό έγινε, ήταν από πολλές απόψεις το χειρότερο σενάριο, και αυτό είναι που έχουμε να αντιμετωπίσουμε.

Δεύτερον, η αποτελεσματικότητα των λύσεων θα καθοριστεί από πολλαπλές μεταβλητές που εξαρτώνται από τη σωστή λήψη και εφαρμογή των αποφάσεων, την επαρκή χρηματοδότηση τόσο από τις κυβερνήσεις όσο και από διάφορους χρηματοπιστωτικούς οργανισμούς και τη συνεργασία μεταξύ των χωρών της ΕΕ και με τους γείτονές τους στη Βόρεια Αφρική και την Ανατολική Μεσόγειο.

Η Ευρώπη έχει πολλά κουμπιά που μπορεί να πατήσει και όσο περισσότερα πατήσει, τόσο καλύτερα θα είναι τα αποτελέσματα. Μερικά από αυτά θα ήταν:

- η καθυστέρηση της σταδιακής κατάργησης του άνθρακα/πυρηνικής ενέργειας
- η ριζική αύξηση των επενδύσεων σε ανανεώσιμες πηγές ενέργειας όπως η αιολική και η ηλιακή ενέργεια
- η επέκταση των δυνατοτήτων της Ευρώπης να δέχεται και να επεξεργάζεται μεταφορά μέσω πλοίων υγροποιημένου φυσικού αερίου
- η καλύτερη αξιοποίηση τέτοιων λύσεων στην Ισπανία, με σύνδεση μέσω αγωγών με τη Γαλλία και επομένως με την υπόλοιπη Ευρώπη
- εγκατάσταση κοινών δικτύων ηλεκτρικής ενέργειας με γειτονικές περιοχές
- η στήριξη στην αξιοποίηση υποθαλάσσιων κοιτασμάτων φυσικού αερίου στην Ανατολική Μεσόγειο και
- η κατασκευή νέων αγωγών που συνδέουν τις αγορές της ΕΕ με τους παραγωγούς φυσικού αερίου στην Κεντρική Ασία.

Όσο περισσότερα από αυτά τα πράγματα κάνουμε –και κάνουμε καλά– τόσο πιο γρήγορα θα υποχωρήσει η κρίση. Όσο επιτρέπουμε να καθυστερεί η εφαρμογή τέτοιων μέτρων, τόσο περισσότερο θα

διατηρηθεί η κρίση –και η ευπάθεια της Ευρώπης σε παρόμοια προβλήματα στο μέλλον.

Σε τελική ανάλυση, λοιπόν, ναι, μπορούμε να βγούμε από την κρίση, αλλά δεν υπάρχει ένα μόνο μονοπάτι που θα οδηγήσει εκεί. Και ναι, μπορούμε να το κάνουμε με ή χωρίς τη συμμετοχή των Ρώσων, αλλά φυσικά η διαδικασία θα ήταν πολύ πιο εύκολη αν με κάποιο τρόπο συμμετείχαν σε αυτή».

**-Πιστεύετε ότι οι τιμές της ενέργειας είναι δυνατό να επιστρέψουν ξανά στα επίπεδα του 2020; Θα πρέπει οι Ευρωπαίοι να προσαρμοστούν στο να ζουν με ακριβό ηλεκτρικό ρεύμα και καύσιμα; Τι θα σήμαινε αυτό για την ευρωπαϊκή οικονομία;**

«Μεσομακροπρόθεσμα, με την προϋπόθεση ότι θα λάβουμε όλα ή τα περισσότερα από τα μέτρα που ανέφερα προηγουμένως, οι τιμές της ενέργειας σίγουρα θα επιστρέψουν μια μέρα στα επίπεδα του 2020, αλλά όχι στις αρνητικές τιμές που παρατηρήθηκαν για σύντομο χρονικό διάστημα, όταν ο COVID-19 κατακρήμνισε τη ζήτηση.

Όπως είμαι βέβαιος ότι γνωρίζετε, οι τιμές πετρελαίου και φυσικού αερίου συνδέονται όχι μόνο με τις αντίστοιχες καταστάσεις προσφοράς και ζήτησης, αλλά και μεταξύ τους. Οι συνθήκες που προκάλεσαν αρνητικές τιμές ήταν εξαιρετικά ασυνήθιστες, και ακόμη κι αν προσεγγίζαμε ξανά αυτά τα επίπεδα, από τη φύση τους δεν θα μπορούσαν να διαρκέσουν πολύ.

**Ωστόσο, οι τιμές μπορούν να μειωθούν και η διαδικασία βρίσκεται ήδη σε εξέλιξη.**

Ήδη σήμερα, πολλές υπεύθυνες χώρες αυξάνουν την παραγωγή πετρελαίου και φυσικού αερίου για να βοηθήσουν στην ηρεμία των αγορών στην Ευρώπη και αλλού. Ωστόσο ορισμένες άλλες χώρες αρνούνται να το κάνουν, ενώ κάποιες άλλες βρίσκονται υπό κυρώσεις, που τις εμποδίζουν να φέρουν στην αγορά αρκετά εκατομμύρια βαρέλια που είναι απαραίτητα για να πέσουν οι τιμές.

Προς το παρόν, οι Ευρωπαίοι δυσκολεύονται πολύ να αντιμετωπίσουν το κόστος ηλεκτρικής ενέργειας και καυσίμων, ειδικά εδώ στην Ελλάδα, όπου οι τιμές της ενέργειας είναι απίστευτα υψηλές. Η Γερμανία είναι ένα άλλο παράδειγμα.

Δεδομένης της κατάστασης, και επειδή είναι η ταχύτερη διαθέσιμη μέθοδος, ορισμένες ευρωπαϊκές χώρες πρέπει να αναστείλουν ή να ανακαλέσουν τις αποφάσεις τους να κλείσουν τους πυρηνικούς σταθμούς και τους σταθμούς ηλεκτροπαραγωγής με άνθρακα. Πρέπει να καθυστερήσουν το κλείσιμο για άλλα πέντε έως επτά χρόνια και ίσως να κατασκευάσουν επίσης ένα ή δύο νέα εργοστάσια άνθρακα, για να αντιμετωπίσουν την αυξανόμενη ζήτηση και να περιορίσουν την ανοδική πίεση στις τιμές μέχρι να προστεθούν στο δίκτυο άλλες πηγές ενέργειας.

Παρά την πιθανότητα οι τιμές να υποχωρήσουν τελικά, βραχυπρόθεσμα έως μεσοπρόθεσμα, οι Ευρωπαίοι πρέπει οπωσδήποτε να προσαρμοστούν. Μελέτες έχουν δείξει ότι οι αυξημένες τιμές της ενέργειας θα σημαίνουν μειωμένη οικονομική ανάπτυξη, ειδικά στη Γερμανία.

Αυτό σημαίνει ότι περισσότεροι άνθρωποι θα έχουν λιγότερα μέσα για να αντεπεξέλθουν στις υψηλότερες τιμές ενέργειας και αυτό καθιστά καθήκον των ηγετών της ΕΕ και των εθνικών κυβερνήσεων να αναπτύξουν πολιτικές και μηχανισμούς για να αμβλύνουν το πλήγμα, ειδικά για τις οικογένειες με χαμηλότερο εισόδημα».

-Η ελληνική κυβέρνηση ζητά από την ΕΕ «στοχευμένη και προσωρινή παρέμβαση» στη χονδρική αγορά φυσικού αερίου για τη μείωση των τιμών. Πιστεύετε ότι μια τέτοια παρέμβαση είναι εφικτή, και αν ναι, τι αντίκτυπο θα μπορούσε να έχει;

«Είναι σίγουρα εφικτή. Υπάρχουν περιστάσεις όπου η ΕΕ θα πρέπει να βοηθήσει τα κράτη-μέλη, όπως σε περιόδους πολέμου, και η τρέχουσα κατάσταση είναι εξαιρετική, πρωτοφανής μετά τον Β' Παγκόσμιο Πόλεμο. Με αυτήν την εξαιρετική κατάσταση πραγμάτων, η ελληνική κυβέρνηση –όπως κάθε άλλο κράτος- μπορεί και πρέπει να προτείνει βιώσιμους δρόμους προς τα

εμπρός, π.χ. ανώτατα όρια στο αυξανόμενο κόστος ηλεκτρικής ενέργειας, πετρελαίου ή/και άλλων ενεργειακών δαπανών. Με τη βοήθεια της ΕΕ, η κυβέρνηση θα πρέπει να μπορεί να επιδοτεί ορισμένους καταναλωτές χαμηλού επιπέδου, για παράδειγμα νοικοκυριά των οποίων η κατανάλωση είναι μικρότερη από 100 KWh την ημέρα».

**-Έχετε γράψει ένα βιβλίο με τίτλος «Ναυτιλιακές διαφορές στην Ανατολική Μεσόγειο: Ο δρόμος προς τα εμπρός». Πιστεύετε ότι υπάρχει περιθώριο για ειρηνική συνεργασία Ελλάδας, Κύπρου και Τουρκίας στον ενεργειακό τομέα και εάν ναι, ποια θα ήταν τα μέσα για να επιτευχθεί;**

«Ναι, πιστεύω ακράδαντα ότι η Ελλάδα, η Κύπρος και η Τουρκία θα μπορούσαν και θα έπρεπε να βρουν τρόπους συνεργασίας στον ενεργειακό τομέα, και υπάρχουν αρκετοί τρόποι με τους οποίους η συνεργασία θα προσφέρει πολλά πλεονεκτήματα.

Το ένα είναι η εξερεύνηση και η εκμετάλλευση κοιτασμάτων πετρελαίου ή/και φυσικού αερίου κάτω από τον βυθό της Ανατολικής Μεσογείου, όπου τα μέρη θα μπορούσαν να μοιραστούν το κόστος, να μοιραστούν δεδομένα, να μειώσουν τις επικαλύψεις, να επενδύσουν το ένα στα κοιτάσματα του άλλου κ.λπ.

**Το ίδιο θα μπορούσε να ισχύει και για τα υπεράκτια αιολικά πάρκα.**

Ένας άλλος τρόπος είναι η κατασκευή ενός ή περισσότερων αγωγών που θα μετέφεραν αέριο από τη νοτιοανατολική Μεσόγειο στην Ευρώπη χωρίς να χρειάζεται όλη η διαδρομή να γίνεται κάτω από το νερό: ο αγωγός θα μπορούσε να φτάσει έως την τουρκική ακτή και ο υπόλοιπος να συνέχιζε από την στεριά.

Δυνητικά, οι τρεις χώρες θα μπορούσαν επίσης να συνεργαστούν για να κατασκευάσουν μια μονάδα LNG, μια τεράστια επένδυση που γίνεται πιο ελκυστική αν διαμοιραστεί το ρίσκο. Σίγουρα πάντα υπάρχει χώρος για ειρήνη και πάντα υπάρχει χώρος για διπλωματία. Ο δρόμος προς τα εμπρός είναι η Ελλάδα και η

Τουρκία να συνεχίσουν τις συζητήσεις τους με βάση τις αρχές της Σύμβασης του ΟΗΕ για το Δίκαιο της Θάλασσας (UNCLOS) που είναι ο Άτλαντας του Παγκόσμιου Ωκεανού. Σε αντίθεση με την Κύπρο, ούτε η Ελλάδα ούτε η Τουρκία έχουν υπογράψει την UNCLOS, αλλά οι κατευθυντήριες γραμμές και τα δεδικασμένα της ισχύουν – και μπορούν να εφαρμοστούν – από όλες τις χώρες. Η UNCLOS παρέχει μια νομική και τεχνική υποδομή με την οποία η Ελλάδα και η Τουρκία, ως κύρια μέρη, θα μπορούσαν να καθίσουν και, με αναφορά σε έρευνες που χρησιμοποιούν την τελευταία λέξη της επιστήμης και τεχνολογίας, να καταλήξουν σε μια δίκαιη και ισότιμη θαλάσσια λύση.

Τόσο ο Πρωθυπουργός Μητσοκάκης όσο και ο Πρόεδρος Ερντογάν έχουν εκφράσει την προθυμία τους να επιλύσουν αυτή τη σύγκρουση και πιστεύω ότι αυτή τη στιγμή είναι η κατάλληλη για να γίνει.

Στο βιβλίο μου, έχω επισημάνει μελέτες που δείχνουν ότι και οι δύο χώρες θα έχαναν ορισμένες θαλάσσιες περιοχές, αλλά και οι δύο χώρες θα κέρδιζαν πολύ περισσότερα: την ομορφιά ενός αποτελέσματος win-win, στο οποίο και οι δύο γείτονες θα μπορούσαν να επωφεληθούν από τον πλούτο του πετρελαίου και του φυσικού αερίου της περιοχής, ενώ και οι δύο λαοί θα μπορούσαν να απολαμβάνουν ειρήνη και ευημερία.



Φυσικά, αυτού του είδους η συνεργασία εξαρτάται από τη φιλική δέσμευση, και αυτή τη στιγμή αυτό ακούγεται δύσκολο, αλλά, όπως εξηγεί το βιβλίο, υπάρχουν τρόποι να επιλυθούν ορισμένες από τις διαφορές μεταξύ των τριών χωρών, ειδικά των διαφορών που σχετίζονται με τα θαλάσσια σύνορα.

Το επόμενο βιβλίο μου, «Κλίμα και ενέργεια στη Μεσόγειο», προχωρά ακόμη περισσότερο προτείνοντας συνεργασία σε όλη την ευρωμεσογειακή περιοχή. Ένα από τα παραδείγματα που μπορούμε να δούμε είναι η Κασπία, όπου πέντε χώρες – Αζερμπαϊτζάν, Ιράν, Καζακστάν, Ρωσία και Τουρκμενιστάν – βρήκαν μια πολύ δημιουργική λύση. Βασικά, συμφώνησαν να εφαρμόσουν ένα σύνολο κανόνων για τον βυθό της θάλασσας και ένα άλλο για το νερό και τους πόρους του. Αυτή η συμφωνία δεν είναι τέλεια, και ορισμένες πτυχές πρέπει ακόμη να αποτελέσουν αντικείμενο διμερών διαπραγματεύσεων, αλλά η συμφωνία επέτρεψε σε κάθε χώρα να πάρει τουλάχιστον μερικά από αυτά που ήθελε και να συνεχίσουν με την εκμετάλλευση των αντίστοιχων μεριδίων τους».

**-Η Ελλάδα φιλοδοξεί να γίνει στρατηγικός ενεργειακός κόμβος για την Ευρώπη. Είναι αυτό εφικτό και αν ναι τι οφέλη θα αποφέρει στη χώρα;**

«Είναι απολύτως εφικτό. Ανάλογα με τις ποσότητες που διαθέτουν, κάθε χώρα της Ανατολικής Μεσογείου που καταλήγει να παράγει πετρέλαιο και φυσικό αέριο μπορεί να γίνει τουλάχιστον σε κάποιο βαθμό ενεργειακός κόμβος. Κοιτάζοντας πίσω, πριν από 10 χρόνια, η Κύπρος είχε την ευκαιρία να γίνει ένας ωραίος περιφερειακός κόμβος αγωγών και τερματικού σταθμού LNG, και εάν η ανάπτυξη συνεχίσει να αυξάνεται, έχει ακόμα μια καλή ευκαιρία να πραγματοποιήσει αυτές τις προβλέψεις. Η Ελλάδα θα μπορούσε επίσης να γίνει σημαντικό ενεργειακό κέντρο την επόμενη δεκαετία, εάν επιβεβαιωθούν κοιτάσματα ανάλογα με αυτά που βρέθηκαν σε άλλες χώρες της Ανατολικής Μεσογείου, όπως η Αίγυπτος και το Ισραήλ. Πράγματι, πολλές εταιρείες του ιδιωτικού τομέα ενδιαφέρονται, αλλά αυτό πιθανότατα θα διαρκέσει 5-10 χρόνια αφού η εξερεύνηση επιβεβαιώσει επαρκείς ποσότητες υδρογονανθράκων. Τα οφέλη του κόμβου θα ήταν

σημαντικά: περισσότερες καλοπληρωμένες θέσεις εργασίας για τους Έλληνες πολίτες, περισσότερα κέρδη για τις ελληνικές εταιρείες, περισσότερα έσοδα για την ελληνική κυβέρνηση, περισσότερα διαθέσιμα κεφάλαια για δρόμους, σχολεία και νοσοκομεία, μεγαλύτερη επιρροή στην ευρωπαϊκή και παγκόσμια σκηνή, και τα λοιπά».

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**European Energy Crisis: R. Baroudi: “It is entirely possible for Greece to be a strategic energy hub for Europe”**



**Roudi Baroudi**

**CEO, Energy & Environment Holding, Qatar**

**Interview with Newmoney.gr by Symela Touchtidou**

**Questions:**

- 1. What is your assessment on the current energy crisis? How long will it last? Is there a way out of it? Is there a way out of it without Russia included?**

Obviously it's a very serious problem, not only for Europe, but also for the whole world as this is affecting so many aspects, from electricity crises to petrol prices for vehicles, transportation in general, food chain, etc.

It's very difficult to predict how long it will last as the war has just begun, but four months in, it has already caused so much damage. Predicting an end-date is a difficult ask because both the problems and the solutions have so many moving parts. First, the problem is a product of several



contributing factors, including: earlier decisions to phase out coal and nuclear plants in some European countries; a failure to sufficiently diversify Europe's overall energy basket (leading directly to over-reliance on Russian supplies, especially pipelined natural gas); and the after-effects of the early-pandemic collapse of oil and gas prices, which forced many producers around the world to shut down, leading in turn to upward pressure on international prices when demand recovered. The combined impact of all this was made even heavier by the timing: the crisis comes just as we are struggling to keep up with decarbonization goals by transitioning away from fossil fuels and toward cleaner and greener energy, leaving European energy markets extremely vulnerable to supply interruptions – or even the possibility thereof. To have had the Ukraine war break out when it did was in many ways worst-case scenario, and that's what we're dealing with.

Second, the effectiveness and timeliness of solutions will be determined by multiple variables that depend on sound decision-making and dedicated follow-up, adequate financing from both governments and multilateral financial institutions, and cooperation among EU countries and with their neighbors in North Africa and the Eastern Mediterranean. Europe has several buttons it can push, and the more of them it pushes, the better the results will be. Some of these would be to delay the coal/nuclear phaseouts; radically increase investments in renewables like wind and solar; expand Europe's capacity to receive and process shipments of liquefied natural gas; make better use of such capacity in Spain by linking it to France, and therefore the rest of Europe, by pipeline; install shared power grids with neighboring regions; help develop undersea gas resources in the Eastern Mediterranean; and build new pipelines linking EU markets to gas producers in Central Asia. The more of these things we do – and do well – the sooner the

crisis will recede. The more we allow implementation of such steps to be delayed, the longer the crisis – and Europe's vulnerability to similar problems in the future – will persist.

So in the final analysis, yes, we can get out of this crisis, but there is no single path that will get use there. And yes, we can do so with or without the participation of the Russians, but of course the process would be much easier with them somehow included.

**2. Do you see energy prices ever going back to the 2020 levels? Will Europeans have to adjust to living with expensive electricity and fuels? What would that mean for the overall European economy?**

In the medium/long terms, provided we take all or most of the steps I listed earlier, energy prices will definitely go back one day to the levels for 2020 as a whole, but not to the negative prices seen briefly when COVID-19 caused demand to fall off a cliff before production had been dialed back, causing a sudden glut. As I'm sure you know, commodity prices for oil and gas are connected not only to their respective supply and demand situations, but also to each other. The conditions that caused negative prices were highly unusual, and even if we approached those levels again, by their nature they could not last long.

Nonetheless, prices can be brought down, and the process is already under way. As of today, many responsible countries are increasing their production of oil and gas to help calm markets in Europe and elsewhere, but some countries are refusing to, while several others are under sanctions, preventing them from bringing to the market several million barrels needed to cool off the price hikes. For the time being, Europeans are having a very hard time to cope with

electricity and fuel costs, especially here in Greece, where energy prices are unbelievably high. Germany is another example.

Given the situation, and because it's probably the fastest method available, some European countries need to suspend or reverse their decisions to close their nuclear and coal power plants. Instead, they need to delay closures for another five-to-seven years, and maybe build one or two new coal plants, too, to cope with rising demand and restrain upward pressure on prices until other sources of energy can come online.

Despite the likelihood that prices will eventually retreat, in the short to medium term, Europeans definitely need to adapt. Studies have indicated that elevated energy prices will mean reduced economic growth, especially in Germany, whose importance to the rest of Europe cannot be overstated. That means more people will have less means to cope with higher energy prices, and that makes it incumbent on EU and national leaders to develop policies and mechanisms to cushion the blow, especially for lower-income families.

**3. The Greek government asks from the EU “a targeted and temporary intervention” in the natural gas wholesale market to bring prices down. Do you believe such an intervention is possible, and if so, what impact could be?**

It is definitely possible. There will be circumstances when the EU has to assist EU members, such as during times of war, and the current situation is an extraordinary one, unseen since World War II. With this extraordinary state of affairs, the Greek government – like any other member state – can and should propose viable paths forward, e.g. caps on rising electricity, petroleum and/or other energy costs. At the very least, with the help of the EU, the government should be able

to subsidize certain low-level consumers, for instance households whose consumption is less than 100 KWh per day.

**4. Are you aware of the 'Six-Point Plan' of the Greek government? What is your assessment on it? (available here <https://primeminister.gr/en/2022/03/09/28836> )**

Yes, I am aware of the Six-Point Plan that Prime Minister Mitsotakis has proposed. It's a very positive move forward in order to cushion some of the pain from disastrous price increases, which are driving inflation across the Greek economy. Here, Greece is contributing to the European Union's overall policy formulation, which seeks to provide protection against the major consequences emanating from the Russia-Ukraine war, and the Greek plan is definitely doable. There are other measures, too, that could be taken to shield the country from the continuous negative repercussions of the war in Ukraine. Of course gas supplies could be increased by expanding the Trans-Anatolian gas pipeline (TANAP) to boost imports from Azerbaijan gas, for instance, but keeping coal power plants would also help contain pressure on electricity prices, as would adding a nuclear plant of 4,000-6,000 MW. Moving quickly to promote energy conservation, too, would also help alleviate spiking costs and give Greek households and business sustainable access to more affordable electricity.

**5. Greece is the only European country where electricity prices are directly linked to natural gas international stock prices. Do you believe there is a way out of this? What measures could be taken to bring electricity prices in the Greek market down?**

Yes, there is definitely a way out. This is the responsibility of the Regulatory Authority for Energy, which controls and regulates energy prices in Greece. Given the circumstances,

the RAE certainly has a powerful incentive to propose a different mechanism, one that would follow other European countries in order to help keep energy prices at affordable costs for all.

**6. You have written a book on “Maritime Disputes in the Eastern Mediterranean: The Way Forward”. Do you believe there is room for peaceful cooperation between Greece, Cyprus and Turkey in the energy field and if so, what would be the means to achieve it?**

Yes, I believe very strongly that Greece, Cyprus, and Turkey could and should find ways to cooperate in the energy field, and there several ways in which working together would offer many advantages. One is exploration and development of oil and/or gas deposits beneath the seabed of the Eastern Mediterranean, in which the parties could share costs, share data, reduce duplication, invest in one another’s fields, etc. The same could go for offshore wind farms.

Another is the construction of one or more pipelines that could transport East Med gas to the European mainland without having to have the entire route under water: just get it to Turkish coast and run the rest of it overland. Potentially, the three countries also could team up to build an LNG plant, an enormous investment and therefore one for which spreading the risk would be very attractive.

Definitely there is always room for peace and there is always room for diplomacy. The way forward is for Greece and Turkey to continue their discussions based on the principles of the UN Convention on the Law of the Sea (UNCLOS) which is the Atlas of the World Ocean. Unlike Cyprus, neither Greece nor Turkey is a signatory to UNCLOS, but its guidelines and precedents are applicable to – and actionable by – all countries. UNCLOS provides a legal and technical

infrastructure with which Greece and Turkey, as the main parties, could sit down and, with reference to surveys using the latest science and technology, arrive at a fair and equitable maritime solution. Both Prime Minister Mitsotakis and President Erdogan have expressed their willingness to solve this conflict, and I believe that right now, the time is right to get it done. In my book, I have highlighted studies indicating that both countries would lose some maritime areas, but both countries would gain far more: the beauty of a win-win outcome, one in which both neighbors would be able to benefit from the region's oil and gas wealth, and both peoples would be able to enjoy peace and prosperity.

**7. Greece aspires to become a strategic energy hub for Europe. Is this possible and if so what benefits will it bring to the country?**

Absolutely it is possible. Depending on what quantities they have, every East Med country that ends up producing oil and gas can become an energy hub to some extent at least. Looking back, 10 years ago, Cyprus was slotted to become a nice regional hub for pipelines and an LNG terminal, and if development keeps on growing, it still has a good chance to make those predictions come true. Greece could also become a major energy center in the next decade if their exploration efforts confirm the same kinds of deposits found offshore other East Med countries like Egypt and Israel. Indeed a lot of private sector firms are interested, but this will probably take 5-10 years after exploration confirms sufficient quantities of hydrocarbons.

The benefits of hub status would be significant: more good-paying jobs for Greek citizens, more profits for Greek companies, more revenues for the Greek government, more funds available for roads, schools, and hospitals, more influence on the European and global stages, etc.

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# EUROPE ENERGY CRISIS – Qatar and Germany sign energy strategic partnership



**News – Oil and Gas – Berlin, May 2022**

Qatar's Emir, His Highness Sheikh Tamim bin Hamad Al Thani, and German Chancellor Olaf Scholz signed a strategic energy partnership on May 20 as Germany scrambles to reduce its dependence on imports of coal and pipelined natural gas from Russia, mainly to punish the latter for its invasion of Ukraine.



Al Jazeera turned to regional energy expert Roudi Baroudi to provide context and analysis for the summit, which could have historic implications. Baroudi confirmed that the German plan centers on a rapid switchover to seaborne shipments of liquefied natural gas, so the government is building two LNG plants, at Brunsbüttel and Wilhelmshaven, along with the possibility of adding three offshore floating storage and regasification units (FCRUs).

Baroudi estimated that these facilities, including the FSRUs, could account for 20-30% of German's annual gas needs of approximately 85 billion cubic meters.

He also explained that Qatar, which has the world's second largest gas reserves and has led the industry in LNG exports for most of the past two decades, would be a natural secure and reliable fit to supply even more gas to European terminals that it already does. The Gulf state has recently invested in even more LNG capacity, via an expansion of its North Field operations, which will see its output once again surpass those of the United States and Australia as the world's largest producer



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# UAE to more than double LNG export capacity with Fujairah plant



Bloomberg / Dubai

Abu Dhabi National Oil Co plans to build a new liquefied natural gas plant as the world's producers race to expand their exports amid surging demand.

The LNG facility, to be built at Fujairah on the United Arab Emirates' coast outside the Arabian Gulf, will be able to produce as much as 9.6mn tonnes a year. The UAE currently has three liquefaction trains with a combined capacity of 5.8 mtpa at Das Island, which is located inside the Gulf.

Adnoc has appointed McDermott International Ltd as design contractor and intends to award a contract for the construction of the plant in 2023, said the oil company in a statement on its LinkedIn page. The plant will use new

technologies and “clean power” to reduce the carbon intensity of the LNG it produces, according to the statement.

Appetite for LNG among energy consumers has grown since Russia’s invasion of Ukraine, particularly in Europe, reinforcing a global market for the fuel that was already strengthened by rising demand in Asia last winter. While prices have eased slightly over the past month “higher prices and more volatility” are expected because of Europe’s switch to LNG, Biraj Borkhataria, associate director of European research at RBC Europe Limited, said in a note.

A pipeline will be constructed linking Abu Dhabi’s Habshan gas production facilities to Fujairah and the liquefaction plant is scheduled to start in 2027, according to two people familiar with the matter. A spokesperson for the company declined to comment on the matter.

A government official previously said the UAE was considering building an LNG plant at Fujairah to facilitate the extra exports and state producer Adnoc last month agreed to buy two LNG carriers from a Chinese shipyard.

The UAE was the world’s 12th-largest LNG producer last year, making it a relatively small global player. However, a \$20bn push to develop more of its natural gas resources means it will be able to produce much more from about 2025 and the country aims to become self-sufficient by 2030.

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## **The end of Europe’s clean-energy preaching**



By Ana Palacio/ Madrid

Russian President Vladimir Putin's war against Ukraine has served Europe a heaping dose of energy realism. While the European Union was touting a "no pain, all gain" transition to renewable energy, many of its industries – particularly in Germany – had developed a debilitating dependence on cheap Russian gas. This revelation should be the first step toward a more realistic – and less dogmatic – European approach not only to its own energy transition, but also to that in the Global South.

The EU has an action plan for weaning itself off Russian fossil fuels. But, while the details of REPowerEU are still being finalised, it is already clear that, like so many European "solutions," the plan is an exercise in muddling through, exemplified by the fact that it will not be completed until 2030.

Though REPowerEU aims to accelerate the rollout of renewables and replace gas in heating and power generation, it also depends significantly on the diversification of energy supplies. Already, energy producers in the Global South have received desperate pleas to help meet the EU's energy needs, which has probably prompted more than a few eye rolls. After

all, countries across the developing world have endured years of European proselytising about the importance of rapid progress toward a carbon-free energy system.

If the EU cannot achieve this in the short term – in order to avoid funding an unjust war, no less – the Global South most certainly cannot. Europe is worried that economic growth and local livelihoods will suffer if it attempts to move too rapidly to renewables. Developing economies are worried that they will have no path to sustained economic growth and poverty reduction at all.

They are right to worry. The positive correlation between baseload power and prosperity clearly shows that a reliable energy supply is essential to economic progress. But, globally, 770 million people – mostly in Africa and Asia – lack access to electricity. In Sub-Saharan Africa, the pandemic worsened energy poverty, with 77% of the region's people now living without electricity, compared to 74% in 2019.

Given that future population growth – and, thus, growth in energy demand – will be concentrated in the Global South, this problem is set to get much worse. And, for now, renewables cannot solve it, because they do not represent a sufficiently reliable power supply. A scale-up in hydrogen fuel could change this, though this remains a stretch for emerging-market and developing economies.

United States Special Presidential Envoy for Climate John Kerry, for one, has now recognised the folly of attempting to force developing economies to go fully renewable. On March 7, following the Russian invasion of Ukraine, he acknowledged that gas would be crucial to economic development in African countries. Even the World Bank – without much fanfare – has reversed its moratorium on financing gas projects.

Yes, this new realism implies a near-term increase in African emissions – but starting from a very low level. The 48 countries that comprise Sub-Saharan Africa (excluding South Africa) represent 0.55% of global carbon dioxide emissions. As a whole, Africa consumes less energy than any other continent

– far less than Europe, especially if one takes into account historical consumption. Rich countries are well aware of this discrepancy, which is why developing countries have been increasingly critical of the developed world's climate hypocrisy: constant pressure to cut emissions coupled with prolonged refusal to finance climate mitigation and adaptation in the Global South.

The Green Climate Fund embodies this hypocrisy. At the United Nations Climate Change Conference in 2009, developed economies pledged to channel \$100bn per year for mitigation and adaptation efforts in developing countries by 2020. As of January 2022, participating countries' pledges amounted to a measly \$10bn.

Sustainability is vital to our planet's future. But the green transition must be just. And justice demands that the Global South receive the same opportunity to develop as the North had. That will be possible only with energy security for all.

That is why this week's Sustainable Energy for All Forum is so important. Stakeholders from both the public and private sectors will gather in Kigali, Rwanda, to find ways to accelerate progress toward UN Sustainable Development Goal 7: ensure access to affordable, reliable, sustainable, and modern energy for all.

This year's Forum comes at a pivotal time in the global energy transition. Moreover, this is the first time since the Forum was launched in 2014 that it will be held in Africa. One hopes that the continent's centrality to the event – and the harsh realisations that the war in Ukraine has imposed on Europe – will be reflected in its conclusions, which, given the current crisis, will be more consequential than ever.

Europe has always prided itself on being a leader in the green-energy transition. This should not change. But, rather than allowing its vision to become clouded by idealism and ideology, the EU must ensure that its energy ambitions – for itself and for developing economies – are firmly grounded in reality. Europe must support developing countries' efforts to adapt to climate change and achieve net-zero emissions. But it

must also help them to achieve energy security. As one African minister succinctly put it, “We will decarbonise, but first we have to carbonise.” – Project Syndicate

- *Ana Palacio, a former foreign minister of Spain and former senior vice president and general counsel of the World Bank Group, is a visiting lecturer at Georgetown University.*

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## **Saudi expects 13mn bpd oil capacity by 2027: Minister**



Saudi Arabia expects to ramp up its daily oil production capacity by more than 1mn barrels to exceed 13mn barrels by early 2027, the kingdom’s energy minister announced Monday.

“Most likely it will be 13.2 to 13.4 (million barrels per day), but that would be (reached) at the end of 2026, beginning 2027,” Prince Abdulaziz bin Salman told an energy conference in Bahrain.

Production at that level would be maintained “if the market

allows it", he said.

Energy giant Saudi Aramco announced in March 2020 it had been directed by the energy ministry to increase its maximum sustainable capacity from 12mn bpd to 13mn bpd.

No timeline was given then for the new target.

Monday's announcement came one day after Saudi energy giant Aramco posted an 82% jump in first quarter profits, buoyed by a global surge in oil prices stemming from the Ukraine war.

Those results helped Aramco dethrone Apple last week as the world's most valuable company by market capitalisation.

They continued a string of positive economic news for Saudi Arabia, which in early May reported that growth in the first quarter had risen 9.6% over the same period in 2021.

Yet Aramco has faced security challenges stemming from the war pitting a Saudi-led military coalition against Yemen's Houthi rebels who have repeatedly targeted the kingdom, including Aramco sites.

Saudi Arabia, the world's biggest oil exporter, has resisted US entreaties to raise output in an attempt to rein in prices that have spiked since the Ukraine war broke out on February 24.

As the war got underway, Saudi Arabia and the United Arab Emirates stressed their commitment to the Opec+ oil alliance, which Riyadh and Moscow lead.

Last year, ahead of the COP26 climate-change summit, Saudi Arabia pledged to achieve net zero carbon emissions by 2060, sparking scepticism from environmental campaign group Greenpeace.

With increasing global urgency to limit global warming, experts warn of the urgent need to reduce fossil fuel use.

But Saudi officials' stated targets indicate "they still believe in oil as a source of energy for the coming decade", Mazen Alsudairi, head of research for Al Rajhi Capital, a financial services firm in Riyadh, told AFP. "They are not following the global trend by reducing exposure to hydrocarbons."

Also at Monday's conference in Bahrain, Iraqi Oil Minister

Ihsan Abdul-Jabbar Ismail said his country was accelerating its production capacity goals, targeting 6mn bpd in 2027 and 8mn bpd in 2029.

Iraq's current daily production is just under 3.5mn.

It reported \$11bn in oil revenues in March, Iraq's highest in half a century.

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## Record fuel costs driven by refining crunch, says Saudi energy minister



Bloomberg / Riyadh

Saudi Arabia's top oil official said that a refining crunch – rather than any shortage of crude – is driving the surge in fuel costs to unprecedented levels.

“The bottleneck has now to do with refining,” Saudi Energy Minister Prince Abdulaziz bin Salman said in an interview. “I



did warn this was coming back in October. Many refineries in the world, especially in Europe and the US, have closed over the last few years. The world is running out of energy capacity at all levels.”

The processing crunch – previously outlined by the Prince at the CERAWEEK conference in India last October – is buoying prices above \$100 a barrel even as markets are well-supplied with crude, he added.

Tumult across fuel markets is widely evident. Gasoline futures climbed to a record of 389.98 cents a gallon on Friday, with prices at the pump already at unprecedented levels, while diesel still commands a premium after spiking in recent months. The surge is compounding inflationary pressures that threaten the economy recovery and worsening the cost-of-living crisis suffered by consumers. Nonetheless, the Organisation of Petroleum Exporting Countries (Opec) and its partners has stuck to schedule of modest supply increases, rubber-stamping another small increment last week, even as flows from coalition member Russia are disrupted by an international boycott.

Their intransigence has caught the attention of US lawmakers. Last week, the Senate Judiciary Committee approved legislation known as NOPEC that, if passed, would subject the group to antitrust laws. The bill has been introduced several times in previous years but never made it into law.

Yet Riyadh and its allies remain adamant that the market still isn't facing a deficit of crude barrels. United Arab Emirates Energy Minister Suhail al-Mazrouei expressed similar views at a conference on Wednesday, saying that high taxes in consuming nations are responsible for surging costs.

Their perspective is gaining support elsewhere.

The International Energy Agency – which advises consuming nations and has called on Opec+ to raise production faster – shifted its focus to products markets in a report on Thursday. While an “acute supply deficit” of oil isn't on the horizon, consumers do face more strain from limited fuel supplies. The lack of refining capacity is being aggravated by the

disruption in flows from Russia, which used to send significant quantities of diesel fuel to Europe, the IEA said. Shipments of diesel-type fuel out of Russia's Baltic and Black sea ports were about half-a-million tonnes, or 14%, lower last month than in February, according to data from Vortexa Ltd.

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## **Gasoline, diesel, jet fuel refining capacity too low in US to meet demand**



Bloomberg / New York

From record gasoline prices to higher airfares to fears of diesel rationing ahead, America's runaway energy market is disquieting both US travellers and the wider economy. But the

chief driver isn't high crude prices or even the rebound in demand: It's simply too few refineries turning oil into usable fuels.

More than 1mn barrels a day of the country's oil refining capacity – or about 5% overall – has shut since the beginning of the pandemic. Elsewhere in the world, capacity has shrunk by 2.13mn additional barrels a day, energy consultancy Turner, Mason & Co estimates. And with no plans to bring new US plants online, even though refiners are reaping record profits, the supply squeeze is only going to get worse.

"We are on the razor's edge," said John Auers, executive vice president at Turner, Mason & Co in Dallas. "We're ripe for a potential supply crisis."

The dearth of refining capacity has dire implications for both US consumers and global markets. At home, retail gasoline prices continue hitting new records, exacerbating some of the worst inflation American households have ever seen.

Meanwhile, the East Coast is on the brink of a diesel shortage that risks crippling already strained supply chains that have disrupted the flow of everything from grocery staples to construction supplies in the last two years. The factors fuelling the refining shortage won't surprise anyone: With demand for gasoline and jet fuel practically vanishing during the height of the pandemic, companies closed some of their least profitable crude-processing plants permanently.

Some of those plants had been affected by fires, explosions and hurricanes and were just too expensive to fix, especially because an eventual transition toward cleaner energy makes their long-term business model unprofitable and makes them less likely to attract buyers. By the end of 2023, as much as 1.69mn barrels of US capacity is targeted for closure compared to 2019 levels, according to Turner, Mason & Co.

At the same time American refining shrinks, the war in Ukraine has made the global divergence between supply and demand even more acute. With many countries shunning Russian fuel exports in the wake of the war, the US is now supplying more of the world's fuel with an ever-shrinking fleet of plants. Europe

has been seeking alternatives to Russian diesel since the war began, while fuel demand in Latin America, the largest buyer of US refined products, is strong and growing. Meanwhile, the US is itself gearing up for a spike in consumption this summer.

That's setting up refiners to reap record profits this year. Valero Energy Corp is seen generating the most cash from operations since its stock started trading in 1997, while top refiner Marathon Petroleum Corp. is expected to post its highest margins in a decade. The two companies are the second and 10th best performers, respectively, in the S&P 500 index this year as of Friday morning.

Retail prices for both gasoline and diesel climbed to fresh records of \$4.432 and \$5.56 a gallon respectively, AAA data showed on Friday. US gasoline futures also rose to a new high. In other kinds of markets, a surge of demand and shortage of supply would trigger more investment, especially with such swelling cash hordes. But the longer-term transition away from fossil fuels dims the outlook for demand, making companies unwilling to put up the billions of dollars needed to build new plants.

Even resurrecting idled plants can be prohibitively costly at a time when construction and labour costs in the US are booming. With California unveiling this week a roadmap to slash oil use by 91% from 2022 levels by 2045 and other places moving to limit fossil-fuel use in the decades ahead, refining companies and their investors can see the writing on the wall. "Nothing about the current environment is promoting investments in fossil fuels," said Bloomberg Intelligence analyst Fernando Valle. "It's a 15 to 20 year payback on most of these investments."

Phillips 66, for example, would have to spend more than \$1bn to restart its Alliance refinery in Louisiana that was shut after damage from Hurricane Ida, Bloomberg Intelligence estimates. LyondellBasell Industries NV has opted to shut its Houston Refinery no later than the end of 2023 over cost concerns related to keeping the 104-year-old facility running.

A portion of shuttered plants are now being converted into smaller renewable-diesel facilities, including Phillips 66's refinery in Rodeo, California, which was confirmed this week. As for selling those assets to someone who could ramp up production, no one's buying – even as industry players are sitting on massive piles of cash. “We feel we've got higher returns, better uses for the capital to employ than buying a refinery that's on the market at this point in time,” Valero chief executive officer Joe Gorder said in a conference call with analysts in late April.

To be sure, there could be some small-scale relief ahead. US refiners ran at 90% last week, and that percentage will increase as seasonal maintenance wraps up this month. Some units can then even run 10% or 20% beyond their nameplate capacity to maximise production in the short term.

But that's a rate that can't be sustained without risking damage. A few refineries are also focusing on debottlenecking or even adding new units inside existing facilities to boost capacity, though it's a drop in the bucket volumewise compared to the total already lost – and it won't come until 2023 or 2024. In short, “too much refining capacity was closed during the pandemic,” Bloomberg Intelligence's Valle said. “Diesel shortages and the price surge are likely here to stay.”