# Making the most of our energy wealth

Lebanon is presented with the most serious challenges it has faced in the past decade. The economy is struggling, the internal security situation is deteriorating and the country's neighbors pose real threats. In these circumstances the very fact that the country continues to operate can be seen as a success. And amidst everything, there are opportunities – not just in newfound offshore oil and gas but also within the country's ingenious population.

As we head into 2013, what can be done to help the country unite, to overcome its challenges and ultimately to grow? Over the course of this week, eight influential figures will address seven important topics, each suggesting one proposal to help the country move forward. In this article, the World Energy Council's Roudi Baroudi calls for measures to protect the country's offshore oil and gas from corruption.

My one hope for Lebanon in 2013 is that all of its various political leaders and factions take and/or allow the necessary

steps for sound and sustainable development of the country's newly promising energy sector.

Why? Because virtually all of the measures involved a) are just common sense; b) require little or no investment of scarce public resources; and c) happen to be the same changes required to reform, rebuild and genuinely reconcile Lebanon as a whole.

On the overall energy front, the first change would have to be one of mindset. For too long, the sector has been treated by officials, their relatives and their cronies as a cash-cow for themselves rather than as an essential ingredient in building and operating a modern nation-state. From heavy industry to the average family, everyone is affected by the chronic power shortfall. We are more than a decade into the 21st century: doing homework by candlelight should be the stuff of tales told by grandparents, not the current experiences of schoolchildren also learning to use computers. Imagine if those tasked with formulating and implementing energy policy were concerned at last with basic public goals: namely, how best to deliver affordable, reliable and sustainable energy (electricity, LPG "cooking gas", gasoline, diesel oil, fuel oil) to all Lebanese.

In turn, this new attitude could quickly convince Lebanese politicians of the need to follow the law by forming a regulatory authority for electricity, and one for the nascent oil and gas industry as well. This would go hand in hand with a government newly determined to ensure transparency, for instance by disseminating all available general information and specific knowledge about the process(es) by which the future of the oil and gas sector is being planned and managed.

The same enlightened leadership would seek out and adopt the best practices at every stage of its oil and gas venture, starting at the beginning. For example, Lebanon should spend its taxpayers' money wisely by restricting its paid

advertising to globally recognized industry publications and highly regarded professional and financial publications like the Economist and the Financial Times, and using the websites of the World Bank and the European Commission – for free – in order to ensure the broadest possible international awareness of the country's hydrocarbon potential. The government could then consult the latter two bodies and other reputable institutions to help understand the experiences of other emerging energy powers and avoid making the same costly mistakes.

Thus animated, not just by the need to closely monitor oil and gas developments, but also by its duty to keep the public informed, the Ministry of Energy and Water would secure timely and professional analysis of the seismic studies immediately following their completion – then, based on these findings, publish the next steps approved by the government in order to pursue development of the fields.

In addition, with the seismic results in hand, the ministry could commission a well-known and qualified international consulting firm to prepare a comprehensive energy master-plan encompassing the entire industry and each of its sub-sectors. The electricity subsector component would be based on a long-term, least-cost expansion of generation and transmission which would take into account feasible grid interconnections with other countries in the region, the role of renewable energy, and integration of the environmental and climate change dimensions to demonstrate Lebanon's strategy for reducing its carbon footprints in its production and use of energy.

When it comes to the implementation of specific projects, the ministry would act diligently to ensure not only that all necessary environmental impact studies were being carried out, but also that the implementation of mitigating measures was done in accordance with both international best practice and the requisite environmental and social guidelines applicable

in Lebanon.

The same spirit of respecting the law and pursuing the national interest also would cause Lebanese politicians, whatever their party loyalties, to avidly support the continued reform of the judiciary, an acceleration of nominations to fill judicial vacancies, and other measures designed to strengthen the rule of law. All of these steps would magnify the impact of the others by helping to ensure that pieces of legislation passed by Lebanon's Parliament are no longer regarded as idle suggestions to be ignored at will.

All of the foregoing – flowing from the original wish that Lebanon's main political actors would stop obstructing oil and gas progress – would ensure a dynamic and profitable energy sector capable of alleviating many national problems, especially poverty. Properly managed, oil and gas would supply ample revenues for decades to come, providing the Lebanese state and Lebanese society with the resources they need to finally end the twin evils of systematic inequality and sectarian resentment.

If we really want our grandchildren not to be doing their homework by candlelight, then real change is needed. With simple steps and more enlightened leadership, we can start to make it happen in 2013.

Roudi E. Baroudi is an independent energy and environmental consultant and Secretary General of the World Energy Council – Lebanon Member Committee

# الوسيط الأميركي يلتقي مسؤولين لبنانيين ويبحث ملفي الطاقة وترسيم الحدود

التقى الوسيط الأميركي الجديد في عملية التفاوض غير المباشر بشأن ترسيم الحدود البحرية الجنوبية بين لبنان وفلسطين المحتلة آموس هوكستاين، اليوم الأربعاء، بعدد من المسؤولين اللبنانيين الكبار وبحث معهم ملفي الطاقة وترسيم الحدود.

والتقى هوكستاين برئيس الجمهورية ميشال عون ورئيس الوزراء نجيب ميقاتي ورئيس البرلمان نبيه بري.

واستقبل عون، قبل ظهر اليوم، هوكستاين، الذي يعد أيضًا كبير مستشاري وزارة الخارجية الأميركية لأمن الطاقة، بحضور السفيرة الأميركية دوروثي شيا، وعرض معه مسار عملية التفاوض بشأن ترسيم الحدود البحرية مع الاحتلال الاسرائيلي والتوجهات المقبلة في هذا الملف، بحسب ما أفاد بيان الرئاسة اللبنانية.

[illegible] *pic.twitter.com/kvsapSwwUg*

*Lebanese Presidency (@LBpresidency) October 20, 2021* –

وقال المستشار الإعلامي في رئاسة الجمهورية رفيق شلالا، لـ"العربي الجديد"، إن "الجانبين بحثا مسار المفاوضات والتوجهات في المرحلة المقبلة على صعيد ملف ترسيم الحدود البحرية"، مشيرًا إلى أن الرئيس عون أكد على ضرورة استئناف التفاوض غير المباشر وتعويله على دور الوسيط الأميركي الذي أكد أنه سيبذل جهده ويواصل اتصالاته بغية تكوين المعطيات الكاملة.

وعلى صعيد التغييرات التي ستطرأ على الوفد اللبناني المفاوض بعد إحالة رئيسه العميد الركن الطيار بسام ياسين إلى التقاعد، أكد شلالا أن "لا شيء رسميا بعد بخصوص هذا الموضوع".

من جهته، أشار رئيس مجلس النواب نبيه بري إلى أن لبنان أمام فرصة جديدة لاستئناف المفاوضات في الناقورة (جنوب لبنان)، مع المساعي الأميركية الجديدة التي تبذل في هذا الإطار.
وبحسب بيان المكتب الإعلامي لرئيس البرلمان، فإن بري أكد خلال لقائه الوسط الأميركي أهمية استثناء لبنان من ضوابط "قانون قيصر" في موضوعي استجرار الغاز المصري والكهرباء من الأردن، مشيراً إلى أن هوكستاين عكس للرئيس بري أجواء تفاؤلية بالتقدم إيجاباً حول هذين العنوانين، كما جرى التأكيد على اتفاق الإطار الذي أعلن في أكتوبر/تشرين الأول من العام الماضي.
وفي سياق آخر، وقع بري، اليوم، القانون الرامي إلى تعديل قانون انتخاب أعضاء مجلس النواب وأحاله إلى رئاسة مجلس الوزراء مع التأكيد على ضرورة استعجال إصداره، كما دعا إلى عقد اجتماع لهيئة مكتب مجلس النواب يوم الإثنين المقبل تمهيداً لعقد جلسة تشريعية.

وعلم "العربي الجديد" من مصدر عسكري مطلع على الملف، أن "الوفد اللبناني المفاوض دخل في إجازة منذ فترة"، مشيرًا إلى أن "الملف وعلى الرغم من أهميته والمكاسب الاقتصادية للبنان منه، إلا أنه ليس على رأس أولوية الاهتمامات عند المسؤولين السياسيين، وهو ما ينعكس سلباً على البلاد، ولا سيما أن العدو لا يضيع وقتاً أو فرصة لاستغلال الوضع المتوتر على الساحة اللبنانية الداخلية والصراعات المستمرة والمتجددة بينما هو يعتدي على حقوق لبنان النفطية وعلى مرأى من الجميع".
وكان الاحتلال الإسرائيلي قد منح أخيرًا شركة "هاليبرتون" الأميركية عقداً للتنقيب عن النفط في منطقة تقع على الحدود البحرية المتنازع عليها، ما دفع لبنان إلى الطلب من مجلس الأمن "التأكد من أن أعمال تقييم التنقيب لا تقع في منطقة متنازع عليها بين لبنان والاحتلال، بغية تجنب أي اعتداء على حقوق وسيادة لبنان، إضافة إلى

منع أي أعمال تنقيب مستقبلية في المناطق المتنازع عليها تجنباً لخطوات قد تشكل تهديداً للسلم والأمن الدوليين".

ويقول الخبير في شؤون الطاقة الدولية رودي بارودي، لـ"العربي الجديد"، إن "أي بحث عبر الوسيط الأميركي في أي فكرة اقتصادية أو تجارية غير وارد قبل ترسيم الحدود بشكل محترف ورسمي، لكن في المقابل، يمكن الاتفاق مع شركة خاصة مستقلة لتنفيذ أعمال التنقيب في حال التثبت من وجود نفط أو غاز، وذلك كما حصل في حقل الخفجي المشترك بين الكويت والسعودية، على أن يأخذ كل طرف حصّته".
ويرى بارودي أنه "من المبكر الحديث عن أي خطوة طالما أن ترسيم الحدود البحرية لم ينجز"، مشيراً إلى أن "هناك حقوقا للبنان يجب أن يحصل عليها"، مؤكداً أن "المطلوب اليوم تأمين الدعم الكامل للجيش اللبناني عند استئناف المفاوضات التي يجب أن تحكمها فقط الاتفاقيات الدولية واتفاقية الأمم المتحدة لقانون البحار والتي تصبّ في صالح لبنان وتعطيه حقه الكامل والعادل".
ويؤكد بارودي أن "الاجتهادات الدولية تعطي لبنان حقه، خصوصاً أن القرارات لا تقيم وزناً للجزر الصغيرة، ولا تعتبر قادرة على دفع أو إزاحة أي خط بحري واحد مقابل الخط الآخر، وبالتالي فإن الصخور والجزر الصغيرة لا تؤخذ بعين الاعتبار عند ترسيم الحدود، وهو ما يعطي لبنان مساحة هي من حقه ومعترف بها دولياً".
ويلفت الخبير الدولي إلى أن "لبنان عام 2010 اعتمد من أجل البدء بالترسيم 61 متراً في البحر بدءاً من رأس الناقورة جنوباً، أما العدو الإسرائيلي فقد اعتمد في العام الذي يليه 37 متراً في البحر"، مشيراً إلى أن الطرفين "أخطآ في البدء بالترسيم من خط بحري (أوف شور)، وعليهما اعتماد خط الناقورة البري الفاصل، وبالتالي فإن الطرفين مجبران على ترسيم الحدود وتحديد خطوط جديدة"، فيما أكد أن "الموقف الأميركي لا يمكنه إلا اقتراح خط عادل ومنصف وتبعاً لقانون الأمم المتحدة للبحار، إذ لا يمكنه الالتفاف حوله".
ويرى بارودي أن "موقف لبنان قوي بحقوقه التي تحفظها له القوانين والاتفاقيات الدولية، بيد أنه ضعيف على مستوى الداخل نتيجة الصراع والمناكفات السياسية التي تحرم اللبنانيين من فرص كثيرة وثروات هي حق لهم، وهو ما حرمهم سابقاً من خط الغاز العربي الذي كان من شأنه أن يحلّ أزمة الكهرباء".

ويشير إلى أن "المسّ بالوفد اللبناني العسكري أو تغيير أعضائه سيكون بمثابة ضربة قوية ترتد سلباً على موقف لبنان في المفاوضات

وتلحق به خسائر جمّة بالنظر إلى أهمية ترسيم الحدود اقتصادياً".
وما زال الرئيس اللبناني يرفض منذ إبريل/نيسان الماضي التوقيع على تعديل المرسوم الذي يصحح حدود لبنان البحرية ومن شأنه أن يعطي البلاد الحق بالتفاوض على نسبة من حقوقه من حقل كاريش الذي يستثمره الاحتلال الإسرائيلي.

---

# La Cop26 di Glasgow: le linee guida per i Paesi del Mediterraneo

Il noto esperto a livello internazionale in campo energetico Roudi Baroudi, pone in evidenza una riflessione in concomitanza con l'imminente arrivo della conferenza sul cambiamento climatico delle Nazioni Unite (COP26) che si terrà quest'anno a Glasgow.

Baroudi definisce questo appuntamento memorabile e storico in particolare per i paesi del bacino del Mar Mediterraneo, Italia compresa. Fa osservare che l'aumento delle temperature e la crisi climatica globale è in atto e gli eventi dell'estate 2021 ne sono la testimonianza reale.

Il fenomeno degli incendi, per esempio, si manifesta con dimensioni e intensità insolite rispetto al passato ed anche nel caso di attività dolosa l'aridità circostante e le alte temperature hanno favorito la propagazione violenta nelle aree colpite generando numerose morti, danni alle proprietà e distruzioni dei terreni agricoli coltivati. In casi come quello della Turchia seguiti da forti inondazioni dovute a piogge torrenziali dopo pochi giorni.
Questi fenomeni non sono più eventi sporadici localizzati in determinate aree, ma costituiscono una vera e propria testimonianza della catastrofe climatica in atto.

Questo ci impone di moltiplicare gli sforzi e sperare di poter invertire la tendenza prima che raggiunga un punto di non ritorno. Se non andremo in questa direzione, continua Baroudi:" la nostra specie dovrà affrontare un futuro sempre più complesso con più incendi, innalzamento del livello del mare, accelerazione dell'acidificazione degli oceani, calo degli stock ittici, tempeste più violente, siccità più lunghe e intense, raccolti compromessi, milioni di rifugiati climatici e fame di massa".
Svariati paesi del Mediterraneo, specialmente appartenenti ad Asia ed Africa hanno già situazioni complesse dal punto di vista territoriale per via della posizione geografica (Sud Italia incluso), inoltre i paesi con meno disponibilità economica fanno ancora molta fatica nella conversione ad impianti con minor impatto ambientale.

Nonostante questo scenario apocalittico, incalza Baroudi, non tutto è perduto. L'Unione europea ha compiuto progressi importanti rispetto alla maggior parte del resto del mondo e sta adottando delle politiche più stringenti sulle emissioni.

Anche gli Stati Uniti stanno intensificando i propri sforzi

dopo quattro anni di cambio rotta sotto l'amministrazione Trump. In tutto il mondo, finalmente, si sta avendo maggiore consapevolezza del problema in maniera più trasversale dal pubblico al privato.

Alla COP26, i leader ed i referenti politici dei paesi partecipanti dovrebbero lavorare costruttivamente ed ascoltare scienziati ed attivisti che chiedono un'azione più rapida ed efficace, inclusa una maggiore assistenza finanziaria per aiutare i paesi meno fortunati a unirsi seriamente alla lotta per il cambiamento climatico.

I programmi che i paesi del Mediterraneo porteranno a Glasgow saranno cruciali perché, nonostante la situazione in atto, la maggior parte di questi stati ha un vantaggio territoriale: ampi spazi e condizioni quasi ideali per le turbine eoliche offshore. Uno studio recente, che utilizza una varietà di tecnologie per elaborare dati previsionali, stima il potenziale combinato di energia eolica di tutti i 23 paesi euro mediterranei (in modo alquanto prudente) a quasi 1,5 milioni di megawatt. Si consideri che l'intera industria nucleare mondiale ha una capacità di circa 400.000 MW, ovvero meno di un terzo di quella che il Mediterraneo potrebbe produrre solamente con impianti eolici. Senza calcolare l'impiego di altre tecnologie: l'idrocinetica sia fluviale che marina (onde e maree), geotermica (on e offshore) e solare (200.000-300.000 MW).

Questa strategia darebbe una propulsione allo sviluppo di molti paesi che oggi hanno uno scarso accesso all'energia elettrica a prezzi accessibili, inoltre l'indotto relativo alle costruzioni degli impianti darebbe nuovi posti di lavoro oltre a molteplici benefici: la possibilità di sostituire i vecchi impianti di produzione più inquinanti, ridurre gradualmente l'importazione di carburanti fossile, rivendere nella rete l'eccesso di produzione energetica ed investire il ricavato in infrastrutture, politiche sociali o ulteriori impianti green.
Uno sviluppo omogeneo delle rinnovabili favorirebbe la

transizione progressiva dai combustibili fossili, riducendo le emissioni di carbonio che causano il cambiamento climatico e quindi facendo gli interessi di tutti, ovunque.

Queste proiezioni positive non si avvereranno mai per osmosi. Molti paesi nel Mediterraneo hanno bisogno di assistenza finanziaria e tecnica per mettere in pratica i progetti di conversione. L'accordo di Parigi includeva impegni economici da parte degli stati più ricchi per finanziare i paesi più bisognosi, ma molti governi non hanno rispettato l'accordo. Questo è controproducente, proprio come la mancata distribuzione del vaccino contro il COVID ai paesi del Sud del mondo, un errore imperdonabile che non solo determina la morte di persone innocenti, ma crea anche terreno fertile per nuove varianti del virus. Se la transizione verso un'energia più pulita creasse difficoltà alle popolazioni già svantaggiate, potrebbe venire a mancare il sostegno popolare verso questo percorso, con conseguenze terribili per tutti noi. Se lasciato incontrollato, il cambiamento climatico potrebbe provocare morte e distruzione ovunque creando flussi migratori ingestibili.

Roudi Baroudi conclude esortando la COP26 a produrre nuovi programmi di finanziamento da parte dei paesi ricchi verso quelli più poveri senza creare situazioni di assistenzialismo. Ci sono moltissime risorse a disposizione e c'è poco tempo per agire, quindi gli stati finanziatori non possono permettersi di sbagliare. I prestiti agevolati andranno messi a disposizione per i paesi più virtuosi che garantiranno la finalizzazione dei progetti. L'unico modo per farlo è articolare una strategia coerente per eseguire progetti rilevanti e fattibili con tempi e budget ben definiti. In particolare, i governi regionali devono dissipare i timori giustificati che, i fondi destinati ai progetti per le energie rinnovabili o ad altri strumenti di de carbonizzazione, andranno invece a riempire le tasche di funzionari locali corrotti.

Queste sono le linee guida che deve seguire quest'anno la conferenza di Glasgow. La lotta ai cambiamenti climatici è ampiamente considerata come la sfida più importante che la nostra specie abbia mai affrontato e la capacità della regione di proteggersi e di esercitare il proprio peso sarà in bilico alla COP26. I paesi che si presentano con piani ben sviluppati per progetti concreti avranno la strada spianata per varie forme di finanziamento. Coloro che non lo faranno saranno inevitabilmente tagliati fuori.

---

# How the US and Iran compete to fuel Lebanon


Hezbollah has imported fuel from Iran to supply Lebanon, while the US wants to power Lebanon with Egyptian gas and Jordanian electricity. The energy race between the geopolitical rivals has implications for the region.

Lebanon has been mired in economic crisis since 2019. Recently, a severe fuel crisis has gripped the country and has

exacerbated the situation considerably.

The fuel shortages hit so hard that a fuel crisis soon became a humanitarian crisis. Lebanese citizens found themselves lining up for hours at petrol stations to receive limited rations of fuel, the price of which has skyrocketed.

Generators, starved of diesel, provided fewer hours of electricity to houses and businesses. Even hospitals were deprived of power.

With the government struggling to manage the crisis, Hassan Nasrallah, the political leader of the Iran-backed Shiite militant group Hezbollah, announced in August that Iranian fuel would be brought into Lebanon.

The first two shipments arrived via Syria on September 16 and 17. Several videos and pictures posted on social media showed people celebrating the arrival of the fuel convoys. A third shipment is expected to arrive this week.

The delivery was not officially approved by the government. The trucks entered via an illegal crossing which violates US sanctions against Iran. So far, the US has not tried to block the shipments.

# US counterproposal to contain Iran’s influence

The US didn’t sit back. Following Nasrallah’s announcement, the US ambassador to Lebanon, Dorothy Shea, revealed that the United States was working closely with the governments of Egypt, Jordan and Lebanon, along with the World Bank, to find sustainable solutions for Lebanon’s fuel and energy needs.

On September 8, the US-backed effort to satisfy Lebanon’s energy needs took place in Amman, Jordan, where ministries

from Egypt, Jordan, Lebanon and Syria outlined a road map to pipe Egyptian natural gas to Lebanon via Jordan and Syria through the Arab Gas Pipeline (AGP). Another part of the plan involves providing electric power to Lebanon from the Jordanian grid.

Although the US proposals would not alone be enough to satisfy market demand, Roudi Baroudi, chief executive of the consultancy Energy and Environment Holding, told DW that the proposals were good ideas as they could increase the supply of electricity to the country.

He explained that, though the AGP is ready for use, the electric cables passing through Damascus were heavily damaged during the Syrian civil war and needed to be repaired. “The gas from Egypt will be sufficient for 8-10 hours per day. Electricity from Jordan and Syria would add 2-3 hours,” he said.

## Iran’s new foreign affairs policy and Syria’s comeback

Technical issues apart, the competition between the US and Iran to help Lebanon in the energy sector has wider implications for the region.

In Lebanon, the Iranian fuel shipment cemented Hezbollah’s powerful image. The new Lebanese Prime Minister Najib Mikati said Iranian fuel imports constituted a breach of Lebanon’s sovereignty, but he didn’t follow with any actions.

For Iran, shipping fuel to Lebanon is a sign of a new vision of its foreign policy, according to Sina Toossi, a senior research analyst at the National Iranian American Council (NIAC). He told DW that Iran wanted to become a regional power and neutralize the effects of imposed sanctions by increasing trades with its neighbors.

“New Iranian President Ebrahim Raisi’s foreign policy strategy focuses on the region and increasing regional economic interconnectivity and interdependence. However, if the US doesn’t enforce sanctions, it may be a sign that Biden has a good intention to get the nuclear deal talks with Iran back on track,” he said.

Conversely, the United States is trying to contain Iran’s influence in the region by backing the proposals to provide natural gas and electricity to Lebanon. However, it found itself in an awkward situation. By involving Syria in the plan, which already expressed its availability, the US would break its own sanctions imposed on Bashar Assad’s government through the 2019 Caesar Syria Civilian Protection Act.

Chris Abi-Nassif, Lebanon program director at the Middle East Institute, told DW that the involvement of Assad’s government in the plan might be perceived as the US reaching out to Syria.

“Syria, which had effectively been taken out of the Arab world equation, has been suddenly put back in the picture,” he said. Furthermore, Syria may take not only a political advantage by letting gas and electricity pass through its territory but also profits, according to Abi-Nassif.

# Fueling Lebanon doesn’t solve the crisis

Lebanon has had an issue in the energy sector since the end of the civil war in 1990. For decades, the political class has developed no long-term plans in the energy sector to satisfy market demand.

The Iran-Hezbollah initiative to supply fuel won’t be enough to satisfy the country’s demand for a long time, although Lebanese may breathe a sigh of relief in the immediate term.

Meanwhile, the US proposals are still being negotiated. It may take several months before they make any difference.

Those proposals may relieve the crisis, but it won’t resolve the issue of paying for gas and electricity, according to Abi-Nassif.

“The fundamental question is how Lebanon will pay for natural gas and electricity, ” he said. “To answer this question, Lebanon should focus on how to settle the debt crisis, restructure the banking system, and how to distribute losses. This is the key to unlock the long-term prospect not only for the energy sector but for any other single sector in Lebanon as well.”

---

# لو استفاد لبنان من خط الغاز العربي لوفّر 5 مليارات دولار… بارودي لـ”النهار”: إبعاد السياسة عن قطاع الطاقة مفتاح الحلول

طرأت في الأيام الأخيرة معطيات إيجابية تعطي ال#لبنانيين بارقة أمل بالنسبة إلى التخفيف من ساعات التقنين الكهربائي القياسي، مع وصول الفيول #العراقي إلى لبنان والذي قد يساهم في تأمين حتى 6 ساعات من التغذية على الشبكة، لتبقى الأنظار إلى مسار استجرار الغاز المصري إلى معمل دير عمار وكذلك استجرار الكهرباء الأردنية.

حصول لبنان على الطاقة الكهربائية من مصادر متعددة وتأمينها على نحو مستدام هو خطوة أولى من أجل وضع البلاد على طريق النهوض وتأمين الاستقرار نظرا إلى اهمية الطاقة في تشغيل العديد من المرافق والقطاعات الحيوية، فيما التدخل السياسي في هذا القطاع هو الذي ادى إلى ما وصلت إليه الأمور. اليوم، تبذل الجهود من أجل استجرار الغاز من مصر والكهرباء من الأردن، ما يحتم على الجهات والدول المعنية تسهيل هذه العملية التي ستعطي لبنان دفعا قويا في ظل الظروف الصعبة التي يمر بها، وما يعيد إلى الواجهة أهمية خط #الغاز العربي الذي انكبت الدول المعنية على إعادة إصلاحه وتعزيز بنيته التحتية لاستخدامه في استجرار الغاز المصري عبر الاردن و#سوريا وصولا إلى شمال لبنان.

نشأت فكرة الخط كنتيجة لتوسيع التعاون الثنائي بين الدول العربية في شرق البحر المتوسط وشمال افريقيا، وذلك منذ اواخر تسعينات القرن الماضي. ففي حين كان لبنان وسوريا يحضّران لمشروع خط الغاز الطبيعي الذي يربط البلدين، كانت الاردن ومصر في طور البدء بتنفيذ الخط المصري – الاردني مرورا بخليج العقبة، وتزامن ذلك مع

الاستعداد لاطلاق المشروع الاورو- متوسطي لربط دول حوض المتوسط بشبكة غاز طبيعي تمتد لاحقا إلى اوروبا. وفي عام 2001، شارك لبنان في الاجتماعات التمهيدية لمشروع نقل الغاز الطبيعي وتسويقه وتصديره إلى دول الحوض الشرقي للمتوسط، وكانت مشاركة لبنان في العديد من الاجتماعات على مستوى تمثيل رئاسة الحكومة والتمثيل الوزاري والتقني. وقد سعت الاجتماعات المتلاحقة إلى التحضير لاتفاق انشاء الهيئة العربية للغاز وتأسيس الشركة العربية لنقل الغاز الطبيعي وتسويقه. وبعدما أقر مشروع إنشاء الشركة تمت المصادقة عليه في كل من الاردن ومصر وسوريا ولبنان حيث اقره المجلس النيابي في العام 2005 بموجب القانون 683.

لقد منعت المناكفات السياسية وعدم اجراء الانتخابات الرئاسية في مواعيدها الدستورية كما الفراغ الحكومي في السنوات الماضية اللبنانيين من الاستفادة من خط الغاز العربي الذي كان يمكن ان يحلّ معظم مشاكل انتاج الكهرباء بحسب الخبير في شؤون الطاقة رودي بارودي، لو تمّ وصل خط الغاز العربي بمعامل انتاج الطاقة الاخرى في الزهراني والجية الجديد والزوق الجديد وصور وبعلبك، خصوصا ان هذه المعامل يمكنها انتاج الطاقة الكهربائية بواسطة الغاز. فلو استفاد لبنان من خط الغاز العربي منذ 18 عاما، لكان وفّر على خزينته حوالي 5 مليارات دولار، في ما لو فرضنا ان سعر برميل النفط يراوح ما بين 50 و60 دولارا اميركيا، ولكان لِبنان نعِم بوقود صديق للبيئة طوال السنوات الماضية، ما يؤدي حتماً إلى انخفاض التكاليف المالية للتشغيل والصيانة. وأكد بارودي انه "لو استفاد لبنان يومها من تلك الشراكة ومن خيرات الانبوب العربي لكانت معظم مشاكله الكهربائية حُلت، اذ انه كان سيستفيد طوال تلك السنوات سواء من اسعار الغاز المصري التنافسية او من ارباح الشركة العربية لنقل الغاز وتسويقه بصفته شريكا اساسيا تصل نسبة ارباحه إلى 25% من الارباح العامة. كذلك، كان ليستفيد من رسم الترانزيت".

**خط الغاز السوري – اللبناني**

بدأ تنفيذ هذا المشروع خلال شهر آذار 2003، وهو عبارة عن انبوب للغاز قياس 24 انش يمتد من سوريا إلى محطة البداوي وينقل الغاز السوري إلى المحطة المذكورة (راجع الخريطة المرفقة). وبحسب بارودي يشمل المشروع صيانة وتشغيل وادارة هذا الخط، في حين ان

اهميته تكمن في انه كان معدا يومها لينقل الغاز السوري بسعر مشجع حدده القانون الرقم 509 الذي اقره البرلمان اللبناني في العام 2003 (الاجازة للحكومة ابرام اتفاقية بيع الغاز من الشركة السورية للنفط). وبالفعل، استفاد معمل دير عمار عبر هذا الخط من الغاز المصري والسوري وانما لفترات متقطعة، وتوقف لاسباب عديدة. ويعتبر بارودي ان سعر الغاز أصبح منافسا جدا مما يؤمن للخزينة وفرا ماليا كبيرا يمكن الحصول عليه في ما لو تم تحويل معامل انتاج الطاقة في دير عمار، الزهراني، الجية، والزوق للعمل على الغاز الطبيعي كما يظهر الجدول التالي، وذلك بحسب الاسعار المختلفة لبرميل النفط. ولا بد من التذكير بأن الكميات المتفق عليها والعائدة لمعملَي دير عمار والزهراني تراوح ما بين مليون ومليون ونصف مليون يومياً .

| سعر برميل البرنت (دولار اميركي) | كلفة كهرباء لبنان من الفيول اويل والغاز اويل* (بملايين الدولارات الاميركية) | كلفة الغاز الطبيعي (بملايين الدولارات الاميركية) | الوفر المتوقع سنويا (بملايين الدولارات الاميركية) |
|---|---|---|---|
| 50$ | 770$ | 542$ | 228$ |

*استنادا إلى استهلاك معامل الطاقة وفقا لتقرير الانتاج الصادر عن مؤسسة كهرباء لبنان

هذا الجدول يشمل الوفر الناتج عن تحويل العمل من الغاز اويل والفيول اويل إلى الغاز الطبيعي في البداوي، الزوق، الجية، والزهراني. أما سعر الغاز المستعمل في هذا النموذج فهو وفقا للقانون الرقم 509 الموقع بين لبنان والشركة السورية للنفط وسعر الغاز اويل المتبع هو 136% من سعر برميل النفط بينما سعر الفيول اويل المتبع هو 88% من سعر برميل النفط. وفي حال أضيفت قيمة الفوائد من الوفر البيئي واطالة حياة المعامل والتوفير في صيانة وعمل المعامل قد تتخطى حدود التوفير الـ 250 مليون دولار سنويا. ولا بد من الاشارة إلى ان معدل عدد ساعات العمل للمعامل وفقا لتقرير الانتاج لمؤسسة كهرباء لبنان يقدر بـ 55%. وإذا ما تحسن اداء العمل فيها (خصوصا في الزهراني ودير عمار) إلى 75% سيرتفع

الوفر إلى أكثر من 350 مليون دولار سنويا.

**مميزات هذه الطاقة النظيفة**

بالانتقال إلى الموضوع البيئي، فالمحافظة على البيئة في لبنان لم تعد ترفا. لذلك لا بد من التوقف عند الوفر البيئي المتوقع من استعمال الغاز الطبيعي، خصوصا ان معامل انتاج الطاقة الحالية تنبعث منها كميات كبيرة من الغازات الملوثة، وهي بمعظمها ناتجة عن عمليات حرق الفيول وغيره من المحروقات الاحفورية لتوليد الطاقة الكهربائية. ويؤكد بارودي ان اهمية استعمال الغاز الطبيعي في معامل الانتاج تتعدى الوفر المباشر لتشمل حوافز اخرى تساعد في التخلص من أعباء مالية كبيرة ناتجة عن استعمال وقود غير نظيف، اضافة إلى كلفة النقل والتوزيع والخسائر التقنية ومشاكل الصيانة وعمل الوحدات. لذلك ثمة حاجة حقيقية للتحول إلى استعمال الغاز الطبيعي في معظم معامل الانتاج في لبنان، لأنه يؤدي إلى خفض المشاكل التقنية والحد من أعبائها المالية، ونذكر من المشاكل ما يتعلق بموضوع صيانة المعامل والاوساخ والضرر البيئي الناتج عن احتراق الفيول. من هنا، يمكن القول ان الفترة التي تفصل مراحل الصيانة للعديد من المعدات والآلات تكون أطول، وبالتالي فان ذلك يطيل عمر المعمل لجهة استعماله لتوليد الكهرباء بما لا يقل عن 5 إلى 7 سنوات. ويساهم استعمال الغاز الطبيعي في الحد من هذه الملوثات بشكل كبير مما يؤدي إلى تخفيف الضرر على البيئة وعلى الصحة العامة، ويكون هذا القطاع قد ثبت دوره الريادي في المحافظة على مصادر البيئة اللبنانية. وسوف يشجع التحول إلى الغاز الطبيعي على انخفاض الانبعاثات الآتية:

1. 100% من انبعاثات الكربون.
2. 60 % من انبعاثات ثاني أوكسيد الكربون.
3. 70 % من انبعاثات أوكسيد النيتروجين.

منعت الحكومات السابقة لبنان من الاستفادة من خط الربط الكهربائي السداسي (مصر، الاردن، العراق، سوريا، لبنان وليبيا) وبالتالي

توفير سنوي قدره 250 مليون دولار طوال السنوات الماضية، علماً أن محطة مجدل عنجر قد انجزت الاعمال فيها عام 2006 وتستطيع أن تستوعب 400 ميغاواط يمكن ربطها بالشبكة اللبنانية. ويعتبر بارودي ان المطلوب من الحكومة الجديدة هو "عدم تضييع الفرصة من جديد والاستفادة من كل الفرص والامكانات لتحسين وزيادة انتاج الطاقة الكهربائية سواء عبر خط الغاز العربي والانتهاء من تنفيذ وصلة جنوب دمشق إلى الزهراني بأسرع وقت ممكن، كما هو ممكن في الخريطة المرفقة او عبر البدء بتطوير انتاج الطاقات المتجددة، خصوصا بواسطة الشمس، نظراً إلى طبيعة لبنان ومناخه الذي يمكن ان يعطي نحو 2000 ميغاواط، وما يؤمن انتاجا نظيفاً ومستداماً ويوفر على الخزينة الكثير من الاموال لبنان بحاجة اليها سواء في بناء معامل جديدة وفي تطوير شبكتي النقل والتوزيع".

---

# Surging wind industry faces its own green dilemma: landfills

**Siemens launches first recyclable wind turbine blade**

- **Anti-wind groups use dumping of blades as rallying issue**
- **Industry calls for EU landfill ban**

Wind turbines have become a vital source of global green energy but their makers increasingly face an environmental conundrum of their own: how to recycle them.

The European Union's share of electricity from wind power has grown from less than 1% in 2000, when the continent began to curb planet-heating fossil fuels, to more than 16% today.

As the first wave of windmills reach the end of their lives, tens of thousands of blades are being stacked and buried in landfill sites where they will take centuries to decompose.

Spanish turbine maker Siemens Gamesa this week launched what it called a "game changer" – the first recyclable blades, which use a technology that allows their carbon and glass fibres to be reused in products like screen monitors or car parts.

"We have reached a major milestone in a society that puts care for the environment at its heart," said Andreas Nauen, chief executive of Siemens Gamesa, which expects the blades to become the industry standard.

Europe is the world's second largest producer of wind-generated electricity, making up about 30% of the global capacity, compared to China's 39%, according to the Global Wind Energy Council, an industry trade association.

Wind Europe, a Brussels-based trade association which promotes the use of wind power in Europe, expects 52,000 blades a year to need disposal by 2030, up from about 1,000 today.

"The public want to be reassured that wind energy is fully sustainable and fully circular," said WindEurope's chief executive, Giles Dickson, describing Siemens Gamesa's new recyclable blade as a "significant breakthrough".

While wind turbine blades are not especially toxic, the resulting landfill, if improperly handled, may contribute to dangerous environmental impacts, including the pollution of land and waterways.

All forms of energy have some environmental cost but renewables, almost by definition, cause less damage to the planet, said Martin Gerhardt, Siemens Gamesa's offshore wind chief.

"If you look at oil wells and the spills or if you consider methane leaks, compared to the fossil industries, wind is the lesser problem," he said.

Wind power is one of the cleanest forms of energy, with a carbon footprint 99% lower than coal and 75% less than solar, according to a study by Bernstein Research, a US-based research and brokerage firm.

Its emissions come mainly from the production of iron and steel used in turbines and concrete for windmill foundations.

If these were mitigated by techniques such as carbon capture and storage – where carbon dioxide is buried underground – "you'd be able to cut out the carbon footprint completely," said Deepa Venkateswaran, the study's author.

The growing mountains of waste created by old blades has become a rallying point for groups opposed to wind turbines, which they also say are noisy and spoil the countryside.

But landfill is likely to remain the preferred disposal option because it is the cheapest, said Eric Waeyenbergh, advocacy manager at Geocycle, a sustainable waste management firm.

"If you just throw it in the landfill, this is the cheapest price you can have when you're dismantling the windmill. And that's a problem because there's no mandatory recycling or recovery obligation," he said.

Geocycle and WindEurope are lobbying for landfills to be banned across Europe where only four countries – Austria, Germany, the Netherlands and Finland – have outlawed the landfilling of composite materials, such as wind turbine blades.

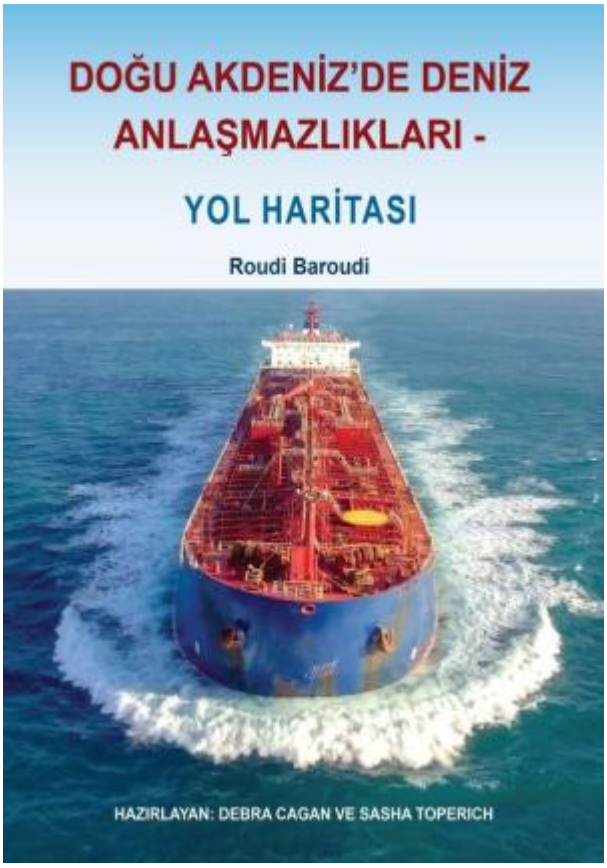
Geocycle co-runs a cement kiln in Germany, with building industry giant Lafarge, which is partly fuelled by burning thousands of tonnes of old wind turbines, which create less carbon dioxide than fossil fuels.

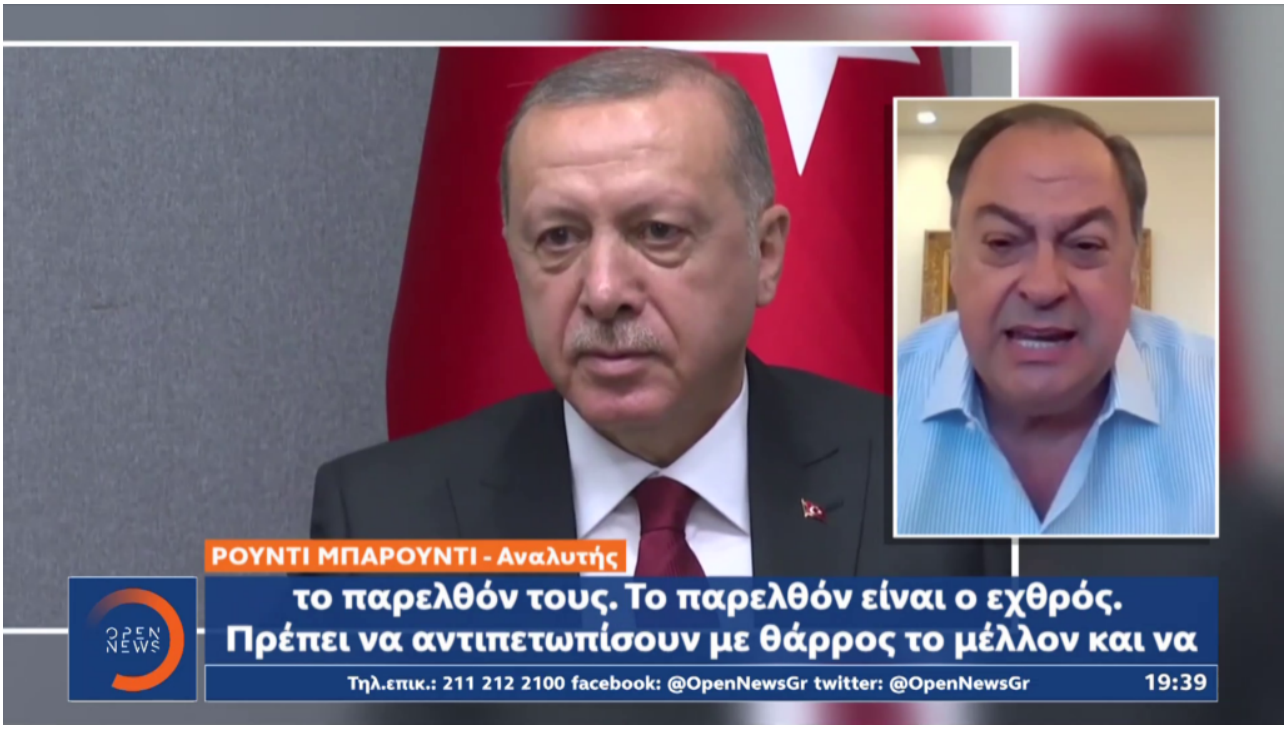
Recyclable blades can also be ground up for use in products

such as rearview car mirrors and insulation panels, or heat-treated to create materials for roof light panels and gutters.
However, industry groups say these techniques are not currently available at commercial scale or at a price that would make them viable alternatives to landfill.
David Romero Vindel, co-founder of Reciclalia, which cuts and shreds turbine blades for recycling as carbon fibre yarn and fabric, said a landfill ban would help his firm.
“We need the EU to push the sector in this direction of recycling,” he said.
Vivian Loonela, a spokeswoman for the European Commission said it will review its landfill policies in 2024.
“The recycling of (windmill) composite fraction remains a challenge due to the low value of the recycled product and the relatively small amount of waste (produced), which does not stimulate the recycling markets,” she said.
– Thomson Reuters Foundation

---

# SEMINAL BOOK ON SETTLING MEDITERRANEAN BORDER DISPUTES NOW AVAILABLE IN TURKISH




**Study stresses diplomacy, international law as pathways to energy boom and regional stability**

**Washington D.C. – 27th July 2021**

WASHINGTON, D.C.: A highly influential book about maritime boundary disputes in the Eastern Mediterranean has been

translated into Turkish, its publisher announced on Monday, spreading its message of peaceful dialogue to a key audience in a region poised for offshore energy riches.

The Transatlantic Leadership Network said it hoped the Turkish translation of author Roudi Baroudi's "Maritime Disputes in the Eastern Mediterranean: The Way Forward" would be just as well-received as its Arabic, French, Greek, and original English versions. The book, distributed by the Brookings Institution Press, co-edited by Debra Cagan and Sasha Toperich has been hailed by a wide variety of academics, diplomats, and other experts.

Baroudi's study emphasizes the paucity of settled maritime boundaries in the region, how crucial these are to the safe and effective exploitation of offshore energy resources, and the proven avenues available for dispute resolution. He explains the purpose and ever-increasing applicability of the United Nations Convention on the Law of the Sea (UNCLOS), the use of legal and diplomatic creativity to circumnavigate mistrust, and the power of shared interest to foment some form of cooperation, even if indirect.

Given recent history, the subject matter could be neither more relevant, nor more timely. Enormous quantities of natural gas have been discovered off the coasts of several East Med countries in the past few years, but thus far the only ones to make real development progress have been Egypt, Israel, and, to a lesser extent, Cyprus. Baroudi's book stresses that the only thing these countries have in common is that their shared maritime boundaries are not in dispute, which has enabled them to attract the necessary investment to the areas in question.

The problems involved – and the solutions on offer – relate to several points of friction across the region, including (to note but a few) a years-long US mediation effort to resolve the maritime boundary between Israel and Lebanon; decades-old tensions between Greece and Turkey, especially over

Castellorizo, a Greek-ruled island just 2 kilometers off Turkey's Mediterranean coast; and multiple side-effects of the division – and partial occupation by Turkish troops – of Cyprus.

Maritime Disputes in the Eastern Mediterranean: The Way Forward" examines these and other complexities of the regional situation, and the several analyses reach a single conclusion: for each of the region's countries, the only viable option is to trust in the rules and processes of UNCLOS, engage in bi- and/or multilateral dialogues with its neighbors, and start reaping the rewards of this emerging energy hub.

Baroudi's background consists of more than four decades in the energy sector, during which time he has helped design policy for companies, governments, and multilateral institutions, including the European Commission, the World Bank, U.S. Exim Bank and the International Monetary Fund. His areas of expertise range from oil and gas, petrochemicals, power, energy security, and energy-sector reform to environmental impacts and protections, carbon trading, privatization, and infrastructure. This book was his latest as being author and co-author of several studies 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.

---

# 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.

# 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.

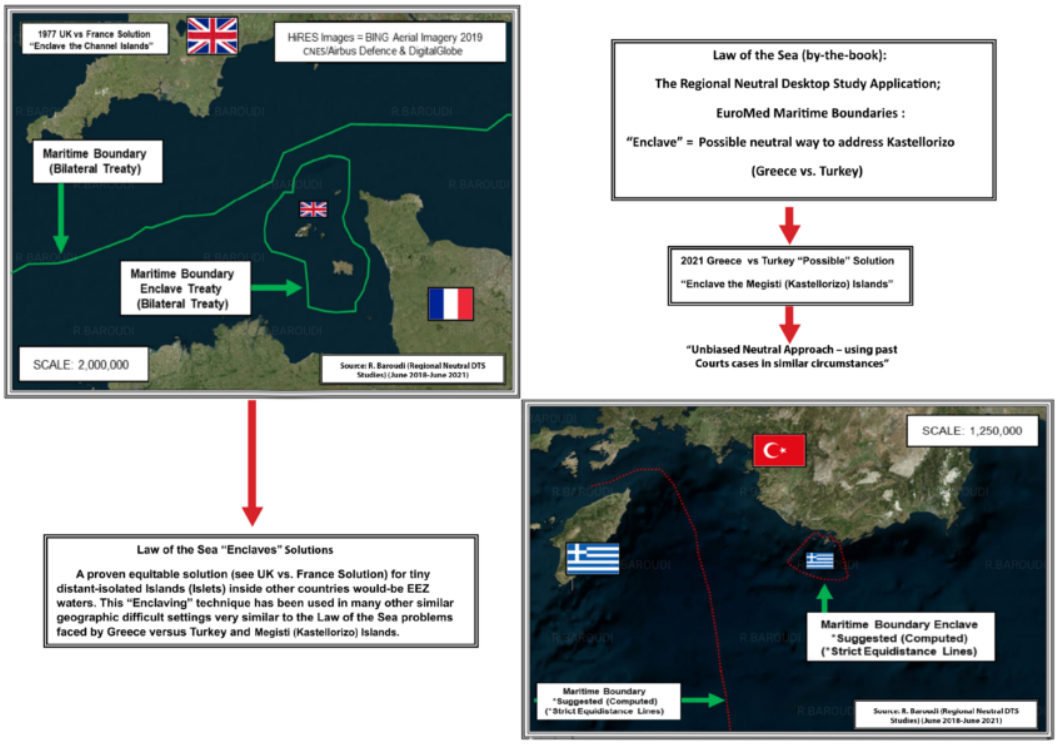
As neighbors in this shared space and de facto partners in the campaign to reduce emissions, Greece and Turkey could maximize the return on their efforts, both individual and combined, by working together. Given the importance of information and the rate at which our ability to gather it is growing due 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.

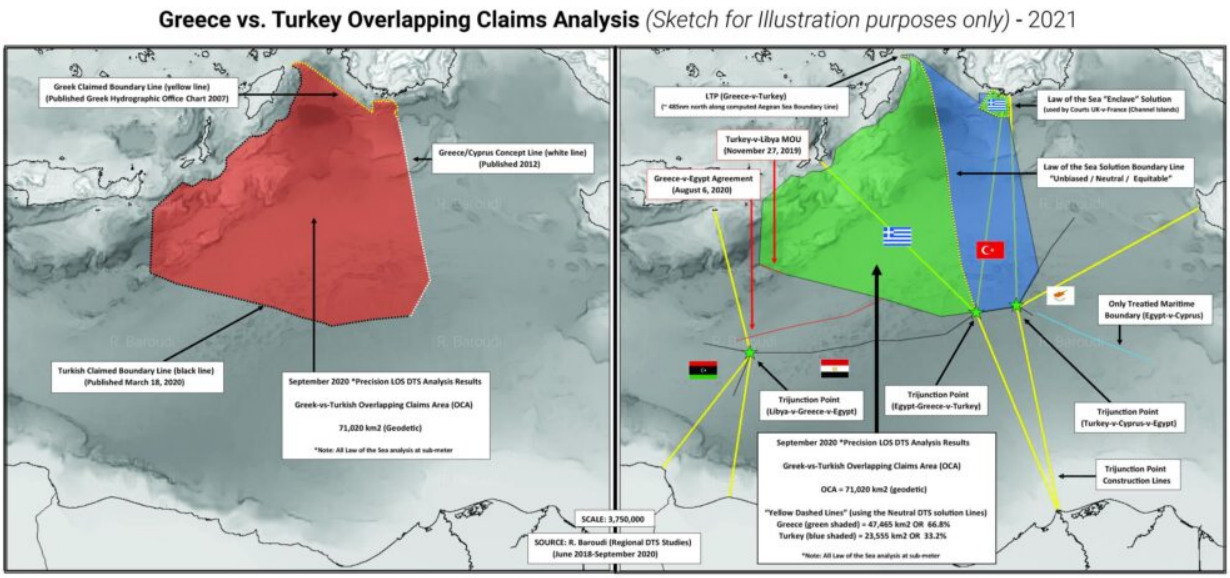
To get there, both Athens and Ankara need to take strategic decisions which, one way or another, insulate their present and future relationship against all extraneous considerations. And more than one clock is ticking. In addition to the 2050 target date for Net Zero carbon, an even more pressing deadline 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.

## Example of Law of the Sea "Enclaves" Techniques




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.




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.

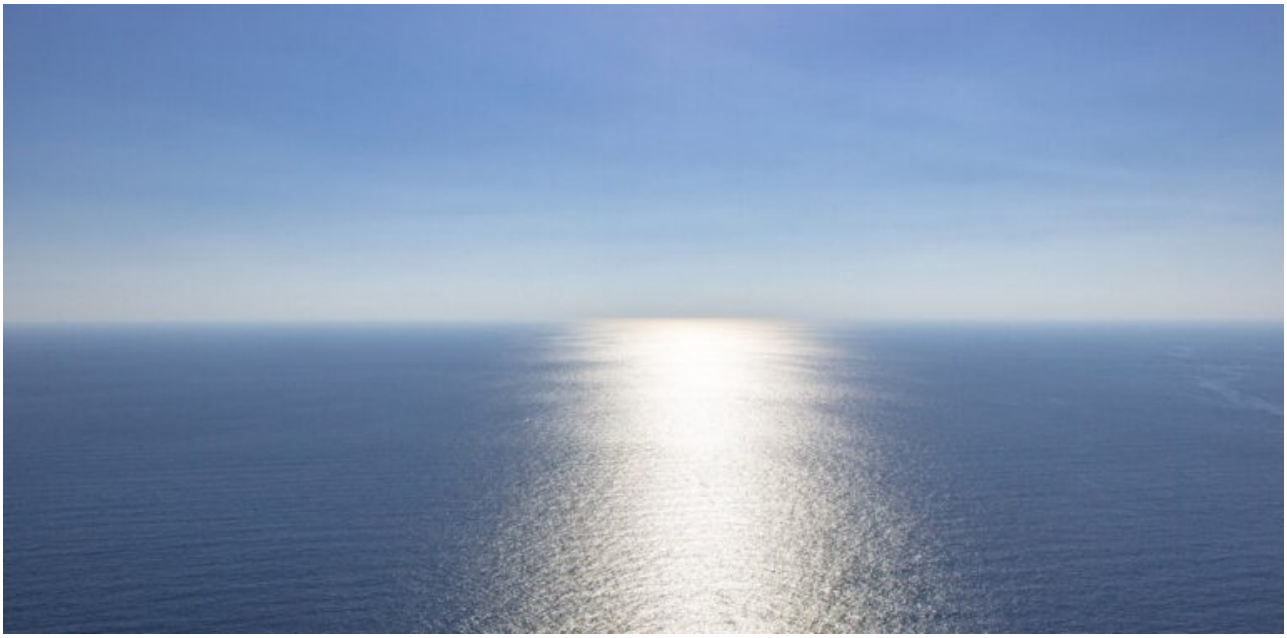
Previous attempts at reconciliation have always fallen short or been derailed, but there is reason to hope that the time is right for a new effort, and that some of the key players are in the right frame of mind. Last week’s NATO summit, for instance, saw US President Joe Biden hit very different notes 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.

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. 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.

# 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.