

TRANSATLANTIC  
LEADERSHIP  
NETWORK

# ENERGY, CLIMATE, SECURITY

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## THE WAY FORWARD

Thursday, March 25, 2021  
Washington, D.C.

# Introduction

The global transition to renewables is underway more quickly than previously envisioned. Economic disruptions have demonstrated that even the most successful speculators have difficulty conceptualizing the “new normal” in the energy industry. Climate change will increase the frequency of volatile fluctuations, generating unpredictable slowdowns, increased utility costs, and security risks.

A new industrial revolution in which almost every aspect of daily life is influenced in some way is occurring at a rapid pace. New technologies once considered science fiction even 5 years ago now offer viable ways to reduce earth’s carbon footprint. What does the future hold and what does this mean for goals toward decarbonization by 2030 and 2050, as announced by many countries?

In this context, the Transatlantic Leadership Network (TLN) recently hosted a virtual conversation on March 25, 2021, entitled “Energy, Climate, Security: The Way Forward.”

At the virtual event, TLN welcomed **The Honorable Ruben Gallego**, United States representative for Arizona's 7th congressional district, who gave a recorded keynote address.

Other participants included:

**Lieutenant General (ret.) Michael Barbero**, Vice President of the Transatlantic Leadership Network and Chairman of TerraScale

**Dr. Roudi Baroudi**, Chief Executive Officer of Energy & Environment Holding

**Ms. Debra Cagan**, Distinguished Energy Fellow at the Transatlantic Leadership Network

**Dr. Joseph Stanislaw**, International Advisory Boardmember of Dana Gas, Founder of The JAStanislaw Group, and Partner at Brightstar Capital Partners

**Dr. Sasha Toperich**, Senior Executive Vice President of the Transatlantic Leadership Network

# Keynote Address



**The Hon. Ruben Gallego**  
Member of Congress (AZ-7)

Thank you to the Transatlantic Leadership Network for letting me partake and be your keynote speaker.

I serve on the Natural Resources Committee and on the Armed Services Committee, so I am at the intersection when it comes to energy, climate, and security. It's been a very interesting time here in the United States, where we've seen the true effects of climate change and the danger it possesses.

Back in 2015, our Defense Department declared it as the number one threat to our forces both here in the United States and deployed. You only have to see what happened, for example, in Tyndall Air Force Base in 2018, or more recently in Texas, where we just had a deep freeze that affected the full energy grid and nearly shut down many of our military and armed service bases in Texas.

Not only that, but we understand too that energy independence is just as important as stopping climate change. Energy independence in the right hands can make a country quite prosperous, or energy dependence can make a country either very frail or at the whim of another country.

This is why, in the 2021 NDAA, I introduced legislation to close all the loopholes that were still left in the Nordstream pipeline, something that I think is very important in terms of keeping energy independence in Western Europe and at the same time allowing Ukraine not to be squeezed by more and more efforts of Russian maligned influence.

Lastly, I am now the Chairman of the independent organization called the Intelligence and Special Operations Subcommittee, and in that area we are exploring the gray zone conflict that happens around energy infrastructure and with good energy independence based on renewable energy with redundancy and resilience. We know that countries like Russia can't use their information worker system to hold us or other countries hostage.

We have an opportunity in the western world to do two things: number one, turn the tide on climate change; number

two, create an independent and resilient energy network that will not be held hostage by petrol states such as Russia.

Thank you for your time and I hope to see you soon in real life. I can't wait to hear about the topics and conversations you had today.



*Pictured: Congressman Ruben Gallego delivers recorded remarks.*



# Panel Conversation



**Dr. Roudi Baroudi**  
CEO, Energy & Environment Holding

*Dr. Baroudi highlighted that climate, energy, and security issues are not only interconnected by nature, but they are also inseparable. He underlined the spirit of peaceful dialogue and a long-term view in reinforcing the impact of joint efforts against climate change.*

In a world of unchecked climate change, the Texas scenario would become more common, even where infrastructure has been solidified. So would countless other types of disasters, from mass crop failures to the permanent immersion of low-lying areas, both on coastlines and

many miles inland. In such a future, for most people in most countries, the threat to lives and property will be many times greater than those posed by any foreign power.

My own country, Lebanon, sits on the edge of the Euro-Med area, which is home to about a billion people. Already, hundreds of millions of them lack sufficient access to water and electricity, while hundreds of millions more could be left jobless, either freezing or sweltering, in the dark if a major weather event were to damage power lines and/or gas pipelines.

## **The Need for Cooperation**

Building more interconnections will make us all more resilient in the face of such challenges. Thinking and working more collectively is also crucial to preventing the climate conditions that would render such weather more commonplace. This is our ounce of prevention, and the time to administer it is now. Luckily, we have encouraging news of late. Greater cooperation demands strong leadership, and in our era the only country that can provide such leadership is the United States.

We also know that developing nations and emerging economies cannot make the necessary sacrifices unassisted. If these countries are to become full participants in the war against carbon emissions, wealthier nations must assist them, in particular by subsidizing the sustainable development of their power sectors. This means getting started now on wind, solar, and other renewables, as well as on new technologies to make even cleaner use of natural gas, which is less polluting than both oil and coal.

For reasons both economic and technological, natural gas is expected to

remain essential as a transition fuel for at least another two decades globally, with longer periods for some states. In many of these countries, they need more electricity to lift their populations out of poverty, and we need them to generate it as cleanly as possible.



*One theme from the discussion was how to transition from contemporary energy systems to a greener future. **Dr. Joseph Stanislaw** examined where he sees markets and commercial technology going, and how it can lead to a more energy resilient future.*



**Dr. Joseph Stanislaw**  
Founder, The JAStanislaw Group  
Partner, Brightstar Capital Partners

The starting point is that energy, climate, and security are one and the same. Energy consumption is the major contributing factor to climate change but how we consume energy, and which energy we consume, may also provide the solution to climate change, security, and economic and social sustainability. This subject was first on the table in a big way in 1975. Back then, the subject was how to meet the world's appetite for energy and improved standards of living and not pollute the planet. The need to develop all energy resources, including what was then called the new and renewables, came to the fore.

## **History**

A backdrop to 1970s was a book written by E.F. Schumacher, *Small is Beautiful*. The book described the importance of appropriate size technology to meet the needs of communities, including not only improving one's standard of living, but also recognizing community needs, values, and social dimensions. Renewable energy technologies were in their infancy but their future importance in addressing energy needs began to be recognized and understood.

Fast forward to the early 1990s. When John Browne (now Lord Browne) became CEO of British Petroleum he shocked the global energy (oil & gas) industry when he declared climate change was real and the industry needed to address it. Tremendous efforts were made by BP to diversify away from a global oil and gas focus. Unfortunately for BP, the timing was off. Renewable energy technologies had advanced far enough to make them cost-effective and economic at scale.

## **Energy Transition**

Now that is all changed. In the 20th century's third decade, ET – Energy Transition – has become the new buzzword. Every major energy company, including and particularly oil & gas companies, has a group working on ET. The goal -- find the technologies in which to invest to support the transition from fossil fuels to technologies that

address decarbonization. Now is the time to move – ET is a 1-2 generational transition – but waiting to start is not an option.

Conventional wisdom held for the past couple of decades that addressing climate change implied limiting economic growth. The new conventional wisdom says that not addressing climate change will limit economic growth. Views on climate change science are unimportant. The action of using all resources more efficiently and economically leads to higher profits!

There are many paths forward and two stand out. One is significant investment in large-scale technologies that require billions of dollars in R&D to develop prototypes to reduce carbon and or produce energy – these take years but could have a big impact and a big payoff for investors. This includes technologies such as small scale nuclear and large-scale storage technologies.

The second path is being set by technology entrepreneurs building early-stage companies focused on smaller-scale technologies including everything from rooftop solar in rural areas in the developing world, to tankless hot water systems, reduced energy heating systems, better heat pumps, improved home and building insulation systems, new window designs that amplify solar penetration and reduce its exit, and a

myriad of others with the potential for rapid market penetration in a very immediate future. These second-path technologies “buy time” for the first-path, large scale technologies that require significantly longer development times.

Both paths are critical for meeting the challenges and opportunities we face in addressing energy, climate, and security. This is a two-generation challenge that requires an equitable approach -- within societies, across societies, and across countries.

In closing, it is important to highlight the direction taken by the Biden administration in rejoining the global

climate change initiative and prioritizing ET and climate change and their importance in meeting societal, equity and employment goals. As we have learned from the COVID-19 response, there is an absolute necessity for global action and cooperation to act as an accelerant to what companies and the private sector have already started. Never underestimate the power of mutual self-interest and the ability of governments and companies to understand this.



***Ms. Debra Cagan*** emphasized the need to ensure that, in the haste to move toward energy security and resilience, no one is left behind by these new policies.

Getting from hydrocarbons to hydro and hydrogen will take more than words agreed to at international fora. We cannot succeed in this transition without like-minded allies both domestically and abroad. Gaining that support cannot happen if in our haste to achieve these lofty goals we leave too many people behind who deserve to be more than an afterthought.

### **Economic Inclusion**

Today an estimated 1.2 billion people still do not have access to electricity. Saving our planet must include these people. We can neither expect nor be surprised at the objections expressed by the millions of workers engaged in the



**Ms. Debra Cagan**  
Distinguished Energy Fellow,  
Transatlantic Leadership Network

U.S. hydrocarbon industry. The budgets of some states, including for education and healthcare, are almost entirely dependent on hydrocarbon earnings.

Simplistic responses to ‘make solar panels instead’ will not gain the essential support we need as a nation to move forward. There is a real and palpable fear among many to what this new future means for them. How we engage and include all of these people who believe they will be disenfranchised, will be critical if we are to achieve success.

This means that we must do far better; less lecturing about the problem, less talk about 10 million new green jobs, and more actual progress in encouraging public and private partnerships to develop micro-manufacturing of the technologies needed to achieve these goals so that U.S. workers see a real future.

We cannot depend on imports from a single source for the well-being of our own economy. It might be a great bumper sticker to say just shift workers from fracking to solar panels, except that virtually all major solar panel components are made in China, as are many of the components for wind power generation.

### **Innovation and Commercial Viability**

Moreover, decarbonization will not occur from carbon offsets, solar or wind farms. It is estimated that roughly half of the

technologies needed to get us to net zero by 2050 are not now commercially available. One of the ideas discussed here at TLN is the creation of innovation hubs spanning the broad range of climate solutions, as well as located regionally in those places that would be hardest hit by the transition from the carbon economy.

These hubs could be a conglomeration of federal, state and local governments, academic institutions and commercial partners, all of which would benefit from the knowledge and insight offered by millions of people involved in the energy industry for decades.

### **Energy Security**

Many U.S. producers have put new wells on hold, and cut production in response to plunging prices in the past year. Now, the crude glut from the height of the pandemic is disappearing and prices have similarly increased to pre-pandemic levels while U.S. production has been stymied by freezing weather throughout Texas and Louisiana.

Within the OPEC+ coalition, Russia is pushing hard for substantial production increases. Paris aside, Russia’s strategy is to be among the last ones standing as others leave the market, unable to extract profit amid falling crude prices.

While others recognize the precipitous drop in renewable prices over the past year make that industry more financially



attractive, for Russia gas will always be cheaper. For the U.S., cutting off LNG too quickly could lead to a reliance on Russia for LNG imports, as has been the case for New England for the past three years. As we move forward on our climate goals, we must ensure that we do not lose the energy independence only recently achieved.



**LTG (R) Michael Barbero**  
Chairman, TerraScale  
Vice President, Transatlantic  
Leadership Network

***LTG (R) Michael Barbero** moderated the discussion. Earlier this year, LTG (R) Barbero was named Chairman of TerraScale, a clean energy and digital infrastructure company. As Chairman, he will help lead the company's rollout of*

*Project Energos, a plan to develop large-scale clean digital infrastructure projects around the world.*

*LTG (R) Barbero outlined the need for public-private coordination to take the practical steps to achieve short and long-term energy security and resilience.*

It takes policy to make the green transition happen, but this is also a private-public enterprise. The policies from the Biden Administration are going to lead us there. I am also very encouraged to see that private equity and investment, which is the oxygen for this transition, has made a turn. They are not tripping over themselves, but they are all in on investing on this transition to a green, more resilient future, which is a huge change.

There must be policies in place to bridge the gap between *then* and *now*, to help the transition, and to ease the disruption to workers in oil and gas today if we are to move towards a greener economy.

This is a wake-up call. We need look no further than what happened recently in the state of Texas to realize that we must make this transition, take on the challenges and seize the opportunities.







## Dr. Sasha Toperich

Senior Executive Vice President,  
Transatlantic Leadership Network

*In his introductory remarks, **Dr. Sasha Toperich** provided an overview of the Transatlantic Leadership Network's ongoing energy-focused initiatives.*

TLN's energy program stands on several strong pillars that have been built over the last several years.

We co-organize the annual Eastern Mediterranean Energy Leadership, in partnership with Tsomokos SA in Greece. The first summit, held in Athens, featured high level participation from both the United States and the region.

We launched a discussion on a by-the-book approach to maritime disputes, advocating for a move away from fueling

tension and to use energy exploration as a mechanism for regional cooperation and peacebuilding. This dialogue began with our publication *Maritime Disputes in the Eastern Mediterranean: The Way Forward* by Dr. Roudi Baroudi, a panelist here today. The book is distributed by Brookings Institution Press and is now available in four languages besides English.

TLN has also been represented in various energy groups, such as SG26, a group on the sideline of the upcoming United Nations Climate Conference (COP26) in Glasgow. Additionally, our moderator today, General Barbero, was recently named Chairman of TerraScale, a clean infrastructure and energy company.

These developments, among others, are highlighted in our quarterly energy newsletter. We host almost monthly webinars dedicated to important energy issues. Today, we have the opportunity to discuss cutting-edge developments in the energy industry, and what it will take to transform and modernize digital infrastructure around the world.



Energy, Climate, Security: The Way Forward  
March 25, 2021



*Clockwise from top left: LTG (R) Michael Barbero, Dr. Joseph Stanislaw, Ms. Debra Cagan, Dr. Sasha Toperich*



*Clockwise from top left: LTG (R) Michael Barbero, Dr. Joseph Stanislaw, Dr. Roudi Baroudi, Ms. Debra Cagan*

# Recommendations

## I. **Take advantage of cooperation**

Interconnected, international partnerships are vital to maintaining and improving energy independence and security.

## II. **Prioritize inclusion**

The economic disruptions caused by the green transition will affect workers across the energy industry. Legislation and policy must ensure that they are not left behind.

## III. **Keep an eye on rare earths**

As new technologies that will get us to net zero are invented, they will require rare earth resources to be developed. China dominates this market. The United States must re-establish its leadership in the rare earth minerals supply chain as a safeguard against natural resource dependence.

## IV. **Encourage public-private partnerships**

The short term green transition goals will need the help of micro-manufacturing to develop the right technologies.

## V. **Create "innovation hubs"**

These instruments would gather government at all levels, industry, and civil society to address a broad range of climate solutions. They can be located regionally in the places that would be hardest hit by the transition from the carbon economy.

## VI. **Support multiple investment paths**

Large-scale research and development over the long term and early-stage, entrepreneurial technologies are equally as critical to advancing the transition.

## VII. **Don't deviate from fundamentals**

Electrification is and always has been the future. The key will be to innovate toward electrification in a decarbonized way.

## VIII. **Maintain energy security**

As the U.S. enacts its climate goals, it is imperative that a precipitous transition does not lead to dependence on other major actors, for example LNG from Russia or solar panels from China.

# About the Transatlantic Leadership Network

We are a nonpartisan international network of practitioners, private sector leaders and policy analysts dedicated to strengthening and reorienting transatlantic relations to the rapidly changing dynamics of a globalizing world. Through field activities, “policy rides,” foresight initiatives, futures scenarios, seminars, conferences, and policy briefs, we engage government officials, parliamentarians, journalists, business executives, scholars, and other thought leaders on contemporary challenges to the United States, Europe, the Middle East, and the Gulf.

The Transatlantic Leadership Network is a Washington, D.C. 501(c)3 nonprofit corporation.

## About the Initiative on Climate, Energy and Security

The Transatlantic Leadership Network’s Initiative on Climate, Energy, and Security will examine the geopolitical challenges and market disruptions that environmental shifts bring to transatlantic relations today. With their broad range of experience across energy, business, military, diplomatic, and academic sectors, TLN fellows will produce innovative research, provide practical recommendations to policy makers, and advocate for sustainable solutions to the environmental and security challenges in its regions of focus.



The logo consists of a dark teal square with rounded corners. Inside the square, the words "TRANSATLANTIC", "LEADERSHIP", and "NETWORK" are stacked vertically in a white, sans-serif, all-caps font.

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