



Aspen Energy Summit
Conference Report



December 2018

About Aspen Energy Summit



The **Aspen Energy Summit** was created to **explore strategic issues at the intersection of energy, economy, geopolitics and security**. A select group of national officials, international leaders and public policy experts from the energy and energy industries, governmental actors and research organizations gather yearly in Ploiești for an open discussion of topics of national and regional importance. These discussions aim to encourage new collaborations and trans-disciplinary thinking.

The Aspen Institute Romania was privileged to partner with the local authorities of Prahova County and Ploiești City to generate a public debate targeting to help them further grow the local potential and boost investments in the region.

Aspen Energy Summit 2018 was intended as a timely review of the strategic issues related to energy, economy, geopolitics and security, highlighting the significant potential of Romania's natural gas resources. Gas Reserves could contribute to the economic growth of the country both directly and indirectly by reviving the chemical and petrochemical industries, whose role in economy has decreased sharply over the past 30 years, despite Romania's broad expertise in these sectors.

About Aspen Institute Romania Energy and Sustainability Program

The Aspen Energy and Sustainability Program is **an active and non-partisan dialogue platform and a neutral forum focused on topics and collaborative ways to promote sustainability in a technology-based world**. The mission of the program is to raise eloquent questions about society and economic opportunities, prompting a new way of thinking.

Through its different participants, the program contributes to deliberate testing of hypotheses and policies used in areas such as sustainable energy development, clean energy, vulnerable consumers, energy security and security in the geo-strategic context of industry. The program promotes values-based dialogue between business leaders, the government, NGOs and academia.



EXECUTIVE SUMMARY

Aspen Energy Summit 2018 was organized in partnership with the City Hall of Ploiești, the Chamber of Commerce and Industry in Prahova and the Oil & Gas University of Ploiești. The event stressed the importance of Ploiești for the Romanian energy sector and the Aspen Institute's support to raise the role of this energy hub in Romania, following the model of Huston, Texas, at a smaller scale.

In his opening remarks, Mircea Geoană, the President of the Aspen Institute Romania, reminded that 2017 was the year when Romania marked 150 years since the first modern exploitation of oil in the world, as the first refinery world-wide was the one located in Prahova County. Referring also to the necessity to avoid the middle income trap and to further develop the country, supporting Romania to catch up with the Western countries, the existing model needs to be adjusted as our allies in Europe and the United States count on Romania's active role when energy security is at stake.

Considering 56% of Europe's energy resources are imported and 36% of the energy originates in Russia, Europe has the utmost need for diversification of resources to avoid empowering Moscow and to ease Europe's dependency on the Russian gas, while not ruling out Moscow as a partner. Romania is in a privileged position as non-dependent on the Russian gas and if developments in the Black Sea continue on a positive trend, Romania could supply over 170 billion cubic meters of gas from these offshore reserves. Although not a significant figure, this would enable our country to export almost 35% of its production. Capitalizing on Romania's role during the Presidency of the European Council, paired with the mix of intellectual and human infrastructure found in Prahova County, should give a timely boost for a new energy reality.

Under the circumstances, BRUA Project (Bulgaria-Romania-Hungary-Austria gas pipeline) is expected to bring positive developments for both Romania and other countries in Europe. The project pertains to a bigger picture within the European Union Energy Strategy, correlated with the Juncker Plan regarding diversification of sources and the energy interconnectivity between states. With the support of local leaders, BRUA along with the Vertical Corridor could connect the Baltic Sea with the Adriatic, with positive impact for Europe. Our local company Transgaz avails of a gas transportation network of more than 13,000 km, playing a key role in the strategic energy infrastructure in light of Romania's over 105 years of gas transportation expertise, with prospects for further development.

THE ROMANIAN ENERGY MARKET IN THE EUROPEAN CONTEXT - public policies, challenges and the energy mix development

Romania has a diverse mix of energy sources, which could help the country to become an attractive platform for investments in the next few decades. Energy resources represent a key factor when considering Romania's business potential. The good news is that gas imports lowered as the country is energy independent, but the consumption of natural gas has decreased also triggering the decrease in production. PwC Partner Bogdan Belciu underlined that this decrease in the industrial consumption needs more attention as residential consumption is constant.

The share of industrial output in Romania's GDP is 27% higher than the European average, but the extraction component is a very low part of the GDP considering the natural resources of the country. The gas discovered in the Black Sea is estimated around 0.1% of all proven natural gas resources worldwide, but these are very important particularly in the European region, being the largest third in Europe after the Norwegian and Dutch ones. Norway generates 14% of the GDP through extraction, much more than Romania does. The extraction can contribute a lot in the economy of the country, directly through the extractive industry and indirectly through stimulating other components of the economy.

Romania has plenty of resources which could contribute, if wisely used, to economic growth in the country. The simplest method to preserve energy resources relates to energy savings. Consequently, the focus should be put on the building environment which covers 40% of Europe's energy consumption, 36% of CO₂ emissions, with 75% of them being energy inefficient. Both public and private buildings should be better capitalized on based on the EU legislation and the European Funds Programs to increase energy efficiency.

Wood as source of energy was brought to the attention by Zoltan A. Kosy, Country Manager Tornator, who highlighted Romania as market leader in exports of handcrafted furniture. Besides, wood is a very good carbon storage material, when considering slowing down global warming. He stressed the relevance of long-term investment in the energy sector as the rotation cycle in forestry is very long and the sector needs more stability and predictability overall. Considering the 6.5 million hectares of existing forests, Romania has high potential that needs to be capitalized to the benefit of the people. Mechanical industry should be considered as primary target and the know-how of the Nordic countries will contribute to building a better future in our industry. At the end of the cycle wood could be a good source of energy.

Investment in infrastructure for nuclear sources will continue to ease Romania's transition towards modern sources of energy by capitalizing on the expertise of the Romanian specialists in nuclear energy in a productive way.

Considering the current stage of developments, the innovative solutions for energy storage are a key direction pertaining to Romania's Energy Strategy to help connectivity and rush transition from fossil fuels to natural gas, while supporting the country move to new energy sources. This is a strategic direction considered by the Ministry of Energy in the next period.

Ploiești -PRAHOVA - From tradition to the energy hub of the future

The major pillar of development in Prahova County is represented by investments of Romanian and foreign private entities, coupled with exports, as Prahova contributes 4% of Romania's total exports. Labor force in Prahova turns to be problematic as most of the production plants face labor shortage, aspect confirmed by Alexandra Petre, Marketing Director of Prahova Chamber of Commerce and Industries. There are initiatives related to importing labor and partnerships with some Vietnamese recruitment companies have been signed in this regard.

Digitalization captures high attention in the current context when digital competencies need to be highly developed and capitalized on in the oil and gas industry. The underfunding of universities is a major obstacle that should be compensated with support of private companies to the main providers of highly trained human resources for the industry, such as the Oil Gas University in Ploiești.

Universities prepare students for today's productive and mainstream technologies but less for tomorrow's innovative technologies. Setting up a center for professional education in energy is considered for the near future, mainly for the low-level (non-university) employees who could learn on existing technologies directly from private companies.

Romania has a long-standing tradition of 113 years in refining since the opening of Vega refinery. Kazmunaygas International has developed an internship program providing for opportunities for students all over the country. The partnerships with both university students (Oil and Gas University) and high school students are aimed at sharing the work opportunities and the scholarships that the company can offer. But there needs to be a clear framework enhancing the

set-up of a training center for the students willing to work in the oil and gas sector. School dropout level in Romania in general and in Prahova county in particular is one of the main causes of workforce shortage that should be timely addressed by capitalizing on these public-private partnerships.

Cristina Cremenescu, Managing Partner of Ecovis Ciurtin & Associates Regulatory, highlighted that this objective is likely to be achieved by promoting a new legislative approach to support public-private partnerships. As there is rich tradition and high expertise in energy, there is also need for additional effort on branding to attract investments and prevent the skilled and valuable labor force from leaving the country. Ploiești City and Prahova County are best equipped to embrace the new economic model and make this transition smoothly.

IS THE TRANSATLANTIC AGENDA A GLOBAL TREND?

International cooperation on energy continues to develop despite political animosities that may arise from time to time. The Paris Agreement stipulates decarbonization, while on the generation side Europe has some old generation fleets that should be renewed. Another common challenge of the two markets is the market failure: electricity prices on current markets do not permit further investments in power generation and power grids. We have new technologies, which have impact on both EU and US markets. Daniela Lulache, Head of the Office of Policy and Coordination, OECD Nuclear Energy Agency (NEA), stressed the fact that nuclear energy will play a role at least at the same level as at present, if not bigger, in the next 100 years.

In the United States there is an energy transition driven by states and private enterprises even without a comprehensive federal policy. With the shale gas revolution, natural gas is going to be in the mix for the long term, bouncing out renewables to help grid reliability. Eric Washburn, the President of Windward Strategies, reinforced the relevance of the dialogue between the EU and US on renewable energy. A new landscape for renewables needs to be reshaped to avoid a situation when private businesses will make decisions based on purely business reasons, disregarding social or environmental costs.

On the transatlantic front, there is both risk and opportunity. The EU and US have two of the most interesting markets in the world, but Europe faces the risk of over-dependency on the Russian gas, which makes few European Union countries relatively weak from a strategic perspective. In this context, Romania should continue to capitalize on its advantages, engage in the construction of the next generation of the European project, try to contribute as much as possible to the European policies and keep these current strategic ties with North America at highest standards.

The future of natural gas in the US is quite bright and even though Washington decided to pull out of the Paris Agreement, most utility players expect that the US will be in some kind of climate regime regulation going forward. This provides grounds for cooperation between Europe and America on various incentives, also considering a potential consortium between the science community and the corporate community. There is a need for common grounds and common goals to make sure that we capitalize on the R&D developments in both EU and the US and prevent externalization. Stronger cooperation to make sure Europa and America preserve their global leadership in energy is highly required.

Aspen Institute Romania's President Mircea Geoană emphasized the high demand for skills experienced people have in various areas while working in business, innovation, research and development, who could also assist the governments to better elaborate on our energy strategy. As a smaller player Romania should push the agenda and help the European decision-makers take significant steps during our holding the Presidency of the European Council.

Romania needs proactive policies, particularly in education, sound strategies, stronger partnerships between corporations and schools and a policy of inclusiveness in the digital era. The human capital issue could be solved if an integrated solution based on input from the public, private and civil society is developed soon.

The business model should change to focus more on social and environmental aspects and to boost innovation to shape a business model that could be profitable and closer to the needs of the society.

MAJOR TAKEAWAYS FROM ASPEN ENERGY SUMMIT

- Romania has a significant energy potential and the advantage of being an energy-independent country, with positive prospects for further consolidating this profile if developments in the Black Sea reach the expected successful outcome.
- One of the biggest challenges in the sector refers to the shortage of skilled work force, very much needed to cover gaps and to raise to the current expectations related to technological developments.
- Strategic partnerships between the public and private entities are of utmost need to enhance expertise in the sector, also by setting up a training center for the graduates of the specialized universities to prepare them for the current needs in the energy sector, particularly to develop expertise in innovative technologies.
- Authorities in Prahova County will actively contribute to fostering international partnerships with positive impact for developing the needed labor skills.
- Romania will continue to strengthen the strategic partnership with the United States on all key dimensions, energy security being one with significant relevance. Our country is an important player in Washington's relations with Europe to foster positive and productive transatlantic cooperation that could lead to achieving strategic energy security goals.
- The business model needs to reshape according to the new paradigm and to focus more on social and environmental challenges, including the current requirements related to innovation as paramount development in various areas, with important implications for the energy sector as well.

The Aspen Energy Summit Ploiești 2018 was organized between 28 – 30 November, in the presence of high-level officials and international experts, and attended by approximately 200 participants, benefiting from local and national media coverage.

- ✓ **Organizers:** Aspen Institute Romania, Aspen Institute US, Prahova County Council, Ploiești City Hall, Petroleum-Gas University of Ploiești, Chamber of Commerce and Industry Prahova;
- ✓ **Institutional Partners:** World Energy Charter, Ministry for Energy, Ministry Minister for Business Environment, Commerce and Entrepreneurship;
- ✓ **Non-governmental Partner:** GMFUS Bucharest Office, New Machiavelli Communications, ECOVIS Ciurtin & Associates Regulatory
- ✓ **Event Partners:** Rompetrol, Tornator, ExxonMobil, Engie, Nuclearelectrica, Enel, Conpet
- ✓ **Knowledge Partner:** PwC
- ✓ **Media Partner:** Energy Industry Review