

Participation in Shale Insight 2024

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On September 24-26, a conference titled “Shale Insight 2024” took place in Erie, Pennsylvania, United States. The conference was sponsored by the Marcellus Shale Coalition, an organization of oil and gas companies operating mainly in the state and region, to discuss how to overcome challenges facing the oil and gas industry and individual companies in consideration of the industry’s importance for the United States and future prospects. As the title suggests, this conference was born and has developed in the form of a child of the shale revolution amid the dramatic development and changes in the U.S. oil and gas industry caused by the shale revolution. The impact of the shale revolution on the United States as a whole has been enormous. For Pennsylvania, as a major shale gas and oil producing state, its massive increase in oil and gas production has been truly revolutionary, bringing about revolutionary changes in the local economy and employment.

At the conference, there was a heated discussion primarily among industry stakeholders on the future of U.S. oil and gas mainly in the region. At present, however, the region is attracting much interest regarding the U.S. presidential election in November. Of the seven battleground states that are expected to determine the outcome of the election, Pennsylvania has the largest number of electors, at 19. In this regard, many believe that the results of the election in the state will be the most important. Both presidential candidates Kamala Harris and Donald Trump are focusing on Pennsylvania. Although Harris is considered to have a slight lead over Trump in the latest approval ratings (that have averaged 48.3% for Harris against 47.6% for Trump), it is reported that their race is too close to call.

In consideration of the importance of the oil and gas industry for Pennsylvania, Harris has softened her stance against the hydraulic fracturing method for shale oil and gas production (based on concerns about the impact of the method), indicating that the presidential candidates’ attitudes about oil and gas are affecting the presidential election outcome in the state. In this respect, Pennsylvania is attracting national and global interest. At the conference attended by more than 800 people on a registered basis, interesting opinions were presented on the future of oil and gas in the region. In the following, I would like to summarize the main points of discussion at the conference.

First, the overall tone at the conference was dominated by great positive hopes placed on the importance and future roles of the oil and gas industry in the state or region. This was natural in a sense, given that oil and gas industry stakeholders met in the heartland of the shale revolution.

Since the mid-2000s, the shale revolution has progressed with a speed and scale that no one could have anticipated, boosting U.S. oil and gas production dramatically. The United States, which had been prepared for a rise in its dependence on energy imports, has made a 180-degree turn to achieve energy self-sufficiency and even become one of the world's largest energy exporters.

While the improvement of the energy self-sufficiency rate has enhanced U.S. energy security, U.S. energy exports have contributed to strengthening international energy security. In a symbolic

event, massive U.S. LNG exports have made a significant contribution to overcoming the energy crisis in Europe, which lost the Russian gas supply due to the Ukraine crisis. In addition, a significant increase in U.S. gas production has lowered domestic gas prices and made progress in switching from coal to gas in power generation in a manner to significantly reduce CO₂ emissions in the United States. Energy price drops, symbolized by the gas price decline, have strengthened the competitiveness of U.S. industries. The enhanced industrial competitiveness has been combined with the growth of oil and gas, and related industries to strongly support the U.S. economy.

Not only the United States as a whole but also Pennsylvania as the center of U.S. oil and gas production benefited greatly from the shale revolution. In addition to the enormous buoyancy effect on the local economy and employment, enormous royalties paid by oil and gas companies to resource owners for upstream development and production, and tax payments by relevant industries have made significant economic contributions. Keynote and other reports at the conference emphasized the important contributions of the oil and gas industry development and indicated that rich oil and gas resources, the great roles of oil and gas in the real world, and initiatives to further brush up and improve technologies and knowhow accumulated through the shale revolution will allow the oil and gas industry to expand production and other business operations. The importance of tackling such initiatives was voiced in a positive, strong tone.

It may be inevitable for the oil and gas industry in the region to be affected by the next U.S. administration. However, participants in the conference seemingly shared a view that oil and gas will certainly remain important for a considerable period of time, regardless of which administration is elected. Although there are various challenges that will be discussed later, I felt industry stakeholders' recognition that it is important and possible to protect and develop the future of the oil and gas industry by strengthening efforts to address the challenges.

However, what was also interesting to me was that oil and gas industry stakeholders shared not only a positive attitude about the future of the industry but also various challenges that could constrain the industry's future growth and development. They demonstrated their attitude of tackling such challenges seriously. These challenges are related to climate change as a global environmental issue and decarbonization initiatives that could lead to possible peak oil and gas demand. I felt their high interest in these challenges. Moreover, I strongly felt that matters of serious concern to oil and gas industry stakeholders in the region are issues that are familiar to the industry and relevant companies and should be addressed immediately.

For instance, how to respond to the Environmental Protection Agency's methane emission regulations and environmental pollution caused by chemical substances such as per- and polyfluoroalkyl substances (PFAS) has become a real issue. Methane emission regulations are an important part of greenhouse gas emission cuts to enhance climate change measures. However, I felt that the industry was facing a serious corporate challenge of how to take effective measures against these specific regulations. At the conference, a session on methane emissions and PFAS was set up for industry stakeholders to report what kind of initiatives they are implementing, what costs they incur, and how they affect companies' business operations. There were many very enthusiastic questions from the audience, leading me to feel a high level of interest in these issues.

In addition, there was a shared sense of urgency that the issue of infrastructure development, such as increasingly important pipeline construction, will become more difficult to deal with and develop into a serious business administration issue in the future unless the industry promotes cooperation, dialogue, and mutual understanding with the local community.

One of the keynote reports at the conference indicated a sense of urgency that the oil and gas industry must actively disclose information on water and air pollution issues, methane emissions, and chemical substances and cooperate with society as a whole and the local community more than ever before, stating that transparent information disclosure is essential for the oil and gas industry to move forward together with society. It was very impressive for me. I felt that I gained a new perspective on the future of the U.S. oil and gas industry, which has a significant impact on the future of the international energy situation.

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