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## USE OF THE GAP ANALYSIS METHODOLOGY IN THE MANAGEMENT OF DEVELOPMENT PROJECTS OF OIL AND GAS INDUSTRY ENTERPRISES

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**Abstract.** *The possibilities of using the Gap analysis methodology are analyzed. The goals and objectives of the Concept of development of the gas production industry of Ukraine were considered. The "strategic gaps" regarding the priority tasks of increasing the volume of gas production were studied. Based on the results of the gap analysis, the reasons for the non-compliance of the actual indicators of the 20/20 Program with the planned indicators were analyzed. Development projects of "Ukrgezvydobuvannya" of the "Trizub" gas production expansion program (ultra-deep drilling; gas of tight rocks; development of the shelf) were studied.*

**Key words:** *gap analysis, strategic gaps, development, strategy, natural gas production, field, project management*

**Анотація.** *Проаналізовано можливості застосування методології Гар-аналізу. Розглянуто цілі та завдання Концепції розвитку газовидобувної галузі України. Досліджено «стратегічні прогалини» щодо першочергових завдань збільшення обсягів видобування газу. За результатами Гар-аналізу проаналізовано причини невідповідності фактичних показників Програми 20/20 плановим. Досліджено проекти розвитку «Укрgezvydobuvannya» програми з нарощування видобутку газу «Тризуб» (надглибоке буріння; газ щільних порід; освоєння шельфу).*

**Ключові слова:** *аналіз прогалин, стратегічні прогалини, розвиток, стратегія, видобуток природного газу, родовище, управління проектами.*

### Introduction.

A gap analysis is a modern tool that can help businesses identify where they aren't living up to their potential, and then use that information to plan ways for improvement. A gap analysis measures actual against expected results to identify suboptimal or missing strategies, processes, technologies, or skills. Gap analyses benefit organizations in many ways, such as identifying growth opportunities and prioritizing resources [1]:

- insight into areas that need improvement, such as efficiency, products, profitability, processes, customer satisfaction, performance, participation, and competitive advantage;
- finding areas of weakness and shortcomings to address;
- ensuring that project requirements have been met etc.

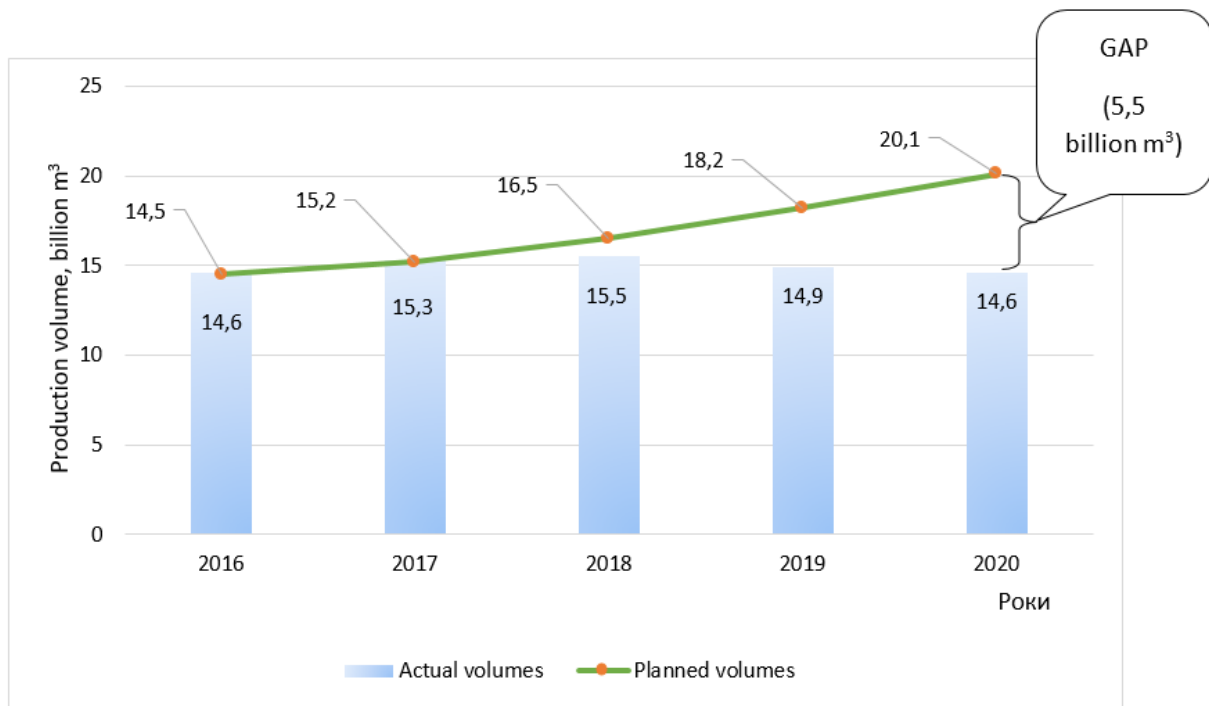
**Main text.**

The concept of the development of the gas production industry of Ukraine [2] was aimed at determining the conditions and measures that will contribute to increasing the volume of own natural gas production to reduce dependence on the import of energy carriers, attracting investments in the energy industry and ensuring Ukraine's energy independence, rational use of energy resources and management of the industry. Implementation of the Concept provided an opportunity for oil and gas enterprises to increase the volume of natural gas production to 27.6 billion cubic meters in 2020. In particular, PJSC "Ukrgezvydobuvannya" predicted an increase in natural gas production in 2020 to 20.1 billion cubic meters, including due to the optimization of the operation of wells of the operational fund, the commissioning of compression stations, the intensification of the operation of wells, including hydraulic fracturing of formations, their overhaul, drilling of wells in existing and new fields.

However, it should be noted that already according to the results of the first stage of the energy sector reform, certain "strategic gaps" (Figure 1) arose regarding the primary tasks of developing one's own resource base and increasing production.

Among the reasons for the inconsistency of the actual performance indicators of the natural gas production plan, experts noted [3]: depletion of the largest deposits; bureaucratic blocking of new licenses; deterioration of the production economy due to a decrease in gas prices; lack of investment, etc.

Over 5 years, the actual volumes of natural gas produced by JSC "Ukrgezvydobuvannya" amounted to about 74.9 billion cubic meters of natural gas. Thus, during the period of 2016-2020, in comparison with the 20/20 Program, the volumes of "unproduced" natural gas of JSC "Ukrgezvydobuvannya" amounted to about 10 billion cubic meters.



**Figure 1 - "Strategic gaps" of gas production volumes according to the 20/20 Program according to the results of the Gap analysis**

#### *Authoring*

UGV approved a new program for natural gas production called Trizub [4], covers main projects:

- development of deep horizons of Shebelinske gas-condensate field, which began in December 2019 by drilling of well # 888 with a target depth of 5750 m jointly with Schlumberger (on the basis of the results of this project, further plans for deep drilling will be developed);
- gas production from tight rocks (shale gas), development of the Svyatohirske field, by drilling two exploration wells this year. Based on performed PLT studies after HF and wide-azimuth 3D seismic (the processing and interpretation of which was also performed by Schlumberger).
- development of the Black Sea shelf (based on the existing knowledge, data from drilled wells, and having planned further stages of the offshore development, in particular seismic, it will soon be possible to predict more specific steps forward in this direction).

## **Summary and conclusions.**

However, when forming new projects and directions of development of domestic oil and gas enterprises, it is advisable to use modern strategic tools (in particular, GAP analysis) and take into account the leading world and own experience, the main mistakes of project management (strategic gaps in the "20/20" program, increasing gas production "Ukrgezvydobuvannya").

A gap analysis should be seen as a key part of strategic planning, which is a process that helps an organization define a strategy to accomplish its goals. By looking for issues via a gap analysis, an oil and gas company can adjust its strategy to better fit the situation, or update the company's processes to align with the strategy.

## **References:**

1 Joe Weller. The Complete Guide to Gap Analysis. *Smartsheet*: website. October 17, 2018 (*updated September 17, 2023*). URL: <https://www.smartsheet.com/gap-analysis-method-examples>

2 *Концепція розвитку газовидобувної галузі України* (2016). Розпорядження Кабінету Міністрів України 28 грудня 2016 р. № 1079-р. Вилучено з: <https://zakon.rada.gov.ua/laws/show/1079-2016-%D1%80#n84>

3 Прес-конференція «Свій газ: підсумки та перспективи» (2020). *Нафтогаз Група*: веб-сайт. 17 лютого 2020 р. Вилучено з: [https://ugv.com.ua/uploads/UGV\\_Prez\\_16x9\\_ALL\\_Out3.pdf](https://ugv.com.ua/uploads/UGV_Prez_16x9_ALL_Out3.pdf)

4 Ukrgezvydobuvannya has developed a new production program Trizub. (2020). *Exploration&Production Consulting (EXPRO)*: website. 17 feb. 2020. URL: <https://expro.com.ua/en/tidings/ukrgasvydobuvannya-has-developed-a-new-production-program-trizub>

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