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Network gas export as a strategic priority of gas industry of the Russian Far East

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Abstract. Gas industry of the Far East has accumulated high potential and can act as a driver of social and economic development of the macroregion. It is possible to form a multiplicative impulse for social and economic development of all the region in the context of development of gas industry of the Far East through implementation of large-scale strategic priorities and projects. Gas export to the Asian-Pacific countries is one of such perspective strategic opportunities that can create a whole strategic direction. Therefore, the main objective of the study is to justify network gas export as a strategic direction of the gas industry of the Far East. Theoretical and methodological basis of the study lies in the certain methodological provisions of sectoral strategizing which are based on the general theory of strategy and involve conducting OTSW-analysis as an effective tool for monitoring and justifying strategic opportunities. The analysis allowed revealing two strategic opportunities which prove high perspective of network gas export from the Far East: "Asian-Pacific region as *'the energy window of opportunity' and 'ecological window of opportunity'* in the Asian-Pacific region". Concentration of the whole range of interest groups (global, national, public, regional, sectoral, corporate), high resource and technology potential as well as the scale of projects devoted to network gas export (exploration and development of gas fields, increasing natural gas production in the region, infrastructure development) will enhance economic and social effects. It justifies network gas export as a strategic direction of gas industry of the Far East. Its implementation will give multiplicative impulse to the social and economic development of the Far Eastern Federal district.

Keywords: strategic opportunity, industrial strategizing, gas industry, gas export, the Russian Far East, socio-economic development

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Экспорт сетевого газа – стратегический приоритет газовой отрасли Дальнего Востока России

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Аннотация. Рассматривается газовая отрасль Дальнего Востока, имеющая высокий накопленный потенциал, которая может выступить драйвером социально-экономического развития макрорегиона. Формирование мультипликативного импульса социально-экономическому развитию всего региона в контексте развития газовой отрасли Дальневосточного федерального округа возможно через реализацию масштабных стратегических приоритетов и проектов. Одной из таких перспективных стратегических возможностей, способных сформировать целое стратегическое направление, может стать экспорт газа в страны Азиатско-Тихоокеанского региона. В связи с этим, основной целью настоящего исследования является обоснование экспорта сетевого газа как стратегического направления газовой отрасли Дальнего Востока. Теоретико-методологической основой исследования выступили отдельные методологические положения отраслевого страте-

гирования, базирующиеся на общей теории стратегии и заключающиеся в проведении OTSW-анализа как эффективного инструмента мониторинга и обоснования стратегических возможностей. В результате анализа выявлены две стратегические возможности, подчеркивающие высокую перспективность экспорта сетевого газа с Дальнего Востока: «Азиатско-Тихоокеанский регион как энергетическое окно возможностей» и «Экологическое окно возможностей в Азиатско-Тихоокеанском регионе». Сконцентрированность целого спектра групп интересов (глобальных, национальных, общественных, региональных, отраслевых, корпоративных), высокий ресурсный и технологический потенциал, а также масштабность проектов, связанных с экспортом сетевого газа (разведка и развитие газовых месторождений, наращивание добычи природного газа в регионе, инфраструктурное развитие) усилит экономические и общественные эффекты. Все это обосновывает экспорт сетевого газа как стратегическое направление газовой отрасли Дальнего Востока, реализация которого придаст мультипликативный импульс социально-экономическому развитию Дальневосточного федерального округа.

Ключевые слова: стратегическая возможность, отраслевое стратегирование, газовая отрасль, экспорт газа, Дальний Восток, социально-экономическое развитие

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管道天然气出口是俄罗斯远东地区天然气工业的战略优先事项

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摘要：远东地区的天然气行业具有很高的积累潜力，可以作为宏观区域社会与经济发展的驱动力。在发展远东联邦区天然气行业的背景下，通过实施大规模的战略优先事项和项目，对整个地区的社会与经济发展形成倍增的推动力。向亚太地区国家出口天然气可能是其中一个 最具前景、能够形成整体战略方向的战略机遇。因此，本研究的主要目的是论证管道天然气出口是远东地区天然气行业的战略方向。本研究的理论和方法论基础是基于一般战略理论的行业战略规划的某些方法论规定，包括OTSW分析，作为监测和论证战略机遇的有效工具。通过分析确定了两个能够突出远东管道天然气出口广阔前景的战略机遇：»亚太地区作为能源机遇之窗 «和 «亚太地区环境机遇之窗»。各类利益集团（全球、国家、公共、区域、行业、企业）的集中、巨大的资源和技术潜力，以及与天然气管道出口相关的项目规模（勘探和开发气田，增加该地区的天然气产量，基础设施建设），这些因素的叠加将产生巨大的经济和社会效应。所有这一切都证明，天然气管道出口是远东地区天然气行业的战略方向，其实施将对远东联邦区的社会与经济发展提供倍增的动力。

关键词：战略机遇，行业战略规划，天然气行业，天然气出口，远东，社会与经济发展

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Introduction

The gas industry in the Far East, which has a wealth of experience [1], can act as a driver for the socioeconomic development of the macroregion [2], where the implementation of large-scale projects and directions promise long-term success [3–5]. The possibility of developing the Far Eastern Federal District (FEFD) through the realization of the gas industry potential is determined by the high concentration of a whole range of interests (global, national, public, regional, industry, corporate) [6], as well as the emerging prospects associated with such trends as: transformation in the energy market and the shift of industrial centers in the Asia-Pacific region (APAC) [7], transition to the principles of "green" economy as a response to climate change [8], natural gas increasing exports [9].

Gas exports to Asia-Pacific countries can become one of such promising strategic opportuni-

ties that can form a whole strategic direction [10]. In this regard, the main purpose of this study is to underpin the export of pipeline gas as a strategic direction of the gas industry in the Far East.

At the same time, the formation of a multiplicative impetus for the socio-economic growth of the entire region is possible within the framework of the development of the FEFD gas industry through the implementation of large-scale strategic priorities and projects [11] that focus on people [12; 13] and generate not only economic (budget and trade), but also social efficiency [14].

Therefore, the theoretical and methodological basis of the study was the methodological provisions of industrial strategy based on strategic science [15; 16], consisting in OTSW analysis as an effective tool for monitoring and justifying strategic opportunities [17]. Monitoring and justification of strategic opportunities forming the strategic direction for pipeline gas export in the framework of Far East gas industry development were carried out according to the OTSW analysis-selective approach applied by the author earlier [7; 18; 19].

Strategic opportunities that justify pipeline gas exports as a strategic direction for the gas industry in the Far East

The monitoring process allowed us to identify two significant strategic opportunities that make this strategic direction promising for the Far East gas industry in the long term.

Asia-Pacific region as a window of opportunities. The high economic growth of some countries in the Asia-Pacific region, as well as the strategic trend of *shifting industrial centers* in favor of the APAC region, have made the region a long-term leader in primary energy consumption (in 2020, the APAC region accounted for about 45.5 % of global energy consumption)[1]. China, India, Japan and South Korea remain the main energy consuming countries in the Asia-Pacific region (**Table 1**).

BP's long-term estimates assume that with a realistic scenario, global energy consumption will grow by more than 25 % by 2050. The biggest

[1] Bp's Statistical Review of World Energy 2021. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html

Table 1

The structure of the energy balances of the Asia-Pacific countries in dynamics from 2000 to 2020 (EJ)

Country	Yea	Consumption							Share of energy obtained from "clean"* sources, %
		Primary energy	Natural gas	Coal	Oil	Nuclear energy	Hydroenergy	Alternative energy	
China	2000	42.5	0.9	29.6	9.6	0.2	2.2	0.0	8.0
	2010	104.3	3.9	73.2	19.0	0.7	6.7	0.7	12.0
	2020	145.5	11.9	82.3	28.5	3.3	11.7	7.7	24.0
India	2000	13.4	0.9	6.9	4.6	0.2	0.8	0.0	14.0
	2010	22.5	2.1	12.2	6.6	0.2	1.0	0.3	16.0
	2020	32.0	2.1	17.5	9.0	0.4	1.5	1.3	17.0
Japan	2000	22.3	2.7	4.0	11.4	3.2	0.8	0.2	31.0
	2010	21.1	3.6	4.9	8.8	2.7	0.8	0.3	35.0
	2020	17.0	3.8	4.6	6.5	0.4	0.7	1.1	35.0
South Korea	2000	7.9	0.7	1.8	4.3	1.1	0.0	0.0	23.0
	2010	10.8	1.6	3.2	4.5	1.4	0.0	0.0	29.0
	2020	11.8	2.0	3.0	4.9	1.4	0.0	0.3	32.0
APAC remaining contries	2000	26.4	5.5	5.8	13.1	0.4	1.3	0.2	28.0
	2010	37.9	9.5	8.9	17.0	0.4	1.7	0.4	32.0
	2020	47.5	11.2	13.6	18.2	0.4	2.5	1.3	32.0
General data for APAC	2000	112.5	10.7	48.0	43.0	5.0	5.2	0.5	19.0
	2010	196.6	20.7	102.3	55.8	5.5	10.3	1.8	19.0
		253.7	31.0	121.0	67.1	5.8	16.4	11.7	26.0

Note: Under "clean" energy sources are meant: natural gas, nuclear, hydro and alternative energy.

positive contribution to growth will come from Asia, particularly from India (energy consumption will increase 2.5 times) and China (consumption will increase 1.14 times)[2]. According to the International Energy Agency, world energy consumption will increase 13 % by 2030 and 26 % by 2050 if stated energy security policies are implemented by countries. Energy consumption in the Asia-Pacific region will increase by 18 % by 2030 and 29 % by 2050[3]. A major contributor to regional consumption growth will be India, which will increase its energy consumption by 1.89 times by 2050 compared to 2020. Experts also predict that China will peak in 2030 after increasing its energy consumption by 11 %, and then slightly reduce its energy consumption by 2050.

Meanwhile, the natural gas market in the region is promising as demand for natural gas in APAC is expected to increase 1.71 times by 2050, 3.28 times in India, and 1.6 times in China (**Fig. 1**).

In addition, according to IEA estimates, the domestic natural gas supply growth in the APAC will be significantly inferior to consumption, with regional gas production reaching 702 bcm by 2030 and 782 bcm by 2050. All this will result in a significant share of the unsecured demand for natural gas at the APAC domestic energy market (36.9 % and 45.7 % respectively)[4].

According to BP's optimistic scenario, there will be 1.82 times more natural gas demand in the region by 2050, with natural gas consumption in China increasing 2.04 times and more than 4.25 times in India by 2020 (**Table 2**).

Table 2

Forecast estimates of domestic demand and supply of natural gas in the Asia-Pacific region until 2050

Country	2025	2030	2035	2040	2045	2050
Natural gas domestic demand (bcm)						
APAC	1108	1303	1410	1486	1539	1575
China	490	601	651	677	685	675
India	88	123	156	187	219	254
Remaining APAC countries	310	352	383	408	429	441
Natural gas domestic supply (bcm)						
APAC	715	705	737	742	773	745
China	241	273	305	325	355	345
India	47	49	53	62	82	96
Remaining APAC countries	269	230	212	192	176	147
Natural gas unsecured demand share						
APAC	35%	46%	48%	50%	50%	53%
China	51%	55%	53%	52%	48%	49%
India	47%	60%	66%	67%	63%	62%
Remaining APAC countries	13%	35%	45%	53%	59%	67%

Source: compiled by the author based on Energy Outlook – 2020 edition. BP

[2] Energy Outlook – 2020 edition. BP. URL: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2020.pdf

[3] World Energy Outlook 2021. IEA. URL: https://www.iea.org/reports/world-energy-outlook-2021/executive-summary

[4] World Energy Outlook 2021. IEA. URL: https://www.iea.org/reports/world-energy-outlook-2021/executive-summary

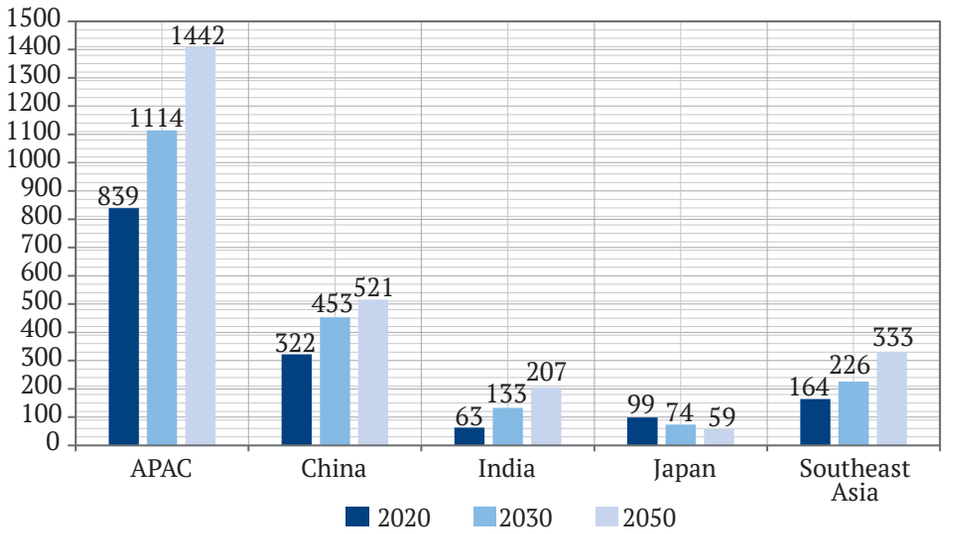

Fig. 1 Projected demand for natural gas in the Asia-Pacific region by 2030 and 2050 (billion cubic meters)

Thus, the Asia-Pacific region can be considered an energy window of opportunity, where the market for natural gas, with a high proportion of unsecured domestic demand, is certainly a promising strategic area for the expansion of gas exports from the Russian Far East.

Environmental window of opportunities in the Asia-Pacific region. In accordance with the Paris Agreement, a number of programs and policies are being developed and implemented at the regional level to address the global trend of "*Climate Change*", which includes negative environmental changes, inter alia those associated with the pollutants emission. Most policy documents refer to varying degrees to the transition to a low-carbon economy, which generally means a move away from dirty energy sources to clean and renewable energy. Above all, this applies to the Asia-Pacific region, which has been the leader in carbon dioxide emissions for the past twenty years (51 % of global carbon dioxide emissions in 2020)[5].

Of particular note is the China policy (the largest emitter of carbon dioxide – 30.7 % in 2020) to develop its energy sector while reducing atmospheric emissions. China's 14th Five-Year Socio-Economic Development Plan, with long-term targets through 2035, sets one for the country to reach peak CO_2 emissions by 2030 and carbon neutrality by 2060[6] The goals are to be achieved by that date by building a low-carbon, secure, and efficient energy system and accelerating the development of non-fossil energy sources by increasing their share of the energy mix to 20 %. Notwithstanding, the need to promote oil and gas exploration and increase gas and oil production, as well as *diversify sources of oil and gas imports*, while maintaining secure strategic channels and key energy hubs to ensure the PRC's energy security, has been pointed out.

The Indian government is also interested in reducing greenhouse gas emissions. Under the Paris Agreement, for example, the country plans to switch 40 % of its power generation capacity to non-fossil fuels by 2030, fulfilling one of its commitments under the agreement ahead of schedule[7]. However, given that about 60 % of India's thermal power plants are coal-fired, natural gas could be a viable option to meet the emissions reduction target[8].

The ambitious goals for transitioning to a low-carbon economy in China, India, and a number of other APAC countries as early as the 50–60s open an environmental window of opportunity for expanding natural gas use in the region and provide a long-term strategic opportunity for the natural gas industry in the Far East.

Strategic threats to the implementation of the strategic direction (gas export from the Far East)

Formulation of the strategic direction is impossible without identifying and evaluating strategic threats that can limit the realization of the strategic opportunities forming it.

Competition in the natural gas market in the Asia-Pacific region. The most realistic threat to the realization of the strategic opportunities outlined in this area is posed by growing competition in the natural gas network market in the Asia-Pacific region. If in 2010 the main gas suppliers were Indonesia (35 %), Myanmar (31 %) and Turkmenistan (13 %), then in 2020 the traditional main suppliers Indonesia (11 %) and Myanmar (17 %) will be joined by Kazakhstan (10 %), the Russian Federation (6 %) and Uzbekistan (5 %), apart from the fact that the leading gas supplier on the market has changed – Turkmenistan (42 %) (**Fig. 2**).

Based on the assessment of resources, i.e. natural gas reserves of the above-mentioned supplier countries, the only long-term and significant competitor of Russia in this area is Turkmenistan, which has about 13.6 tcm of explored gas reserves[9].

[5] Bp's Statistical Review of World Energy 2021. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html

[6] The Fourteenth Five-Year Plan for the National Economic and Social Development of the People's Republic of China and the Outline of the Long-term Goals for 2035. URL: http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm

[7] India's greenhouse gas policy is governed by the Paris Agreement. URL: https://www.ng.ru/energy/2021-09-13/15_8250_india.html

[8] Russia and India will focus on cooperation in the gas sphere. URL: https://rg.ru/2021/03/02/rossiia-i-indiia-sdelaiut-upor-na-sotrudnichestvo-v-gazovoj-sfere.html

[9] Bp's Statistical Review of World Energy 2021. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html

Competition from alternative energy sources. The course set by countries to achieve low emissions of pollutants into the atmosphere is reinforcing the trend toward *energy market transformation* and promoting a higher share of "clean" energy sources in national energy balances through increased consumption of environmental green energy resources and alternative energy sources, including hydro and nuclear energy, as well as renewable energy sources to a greater extent.

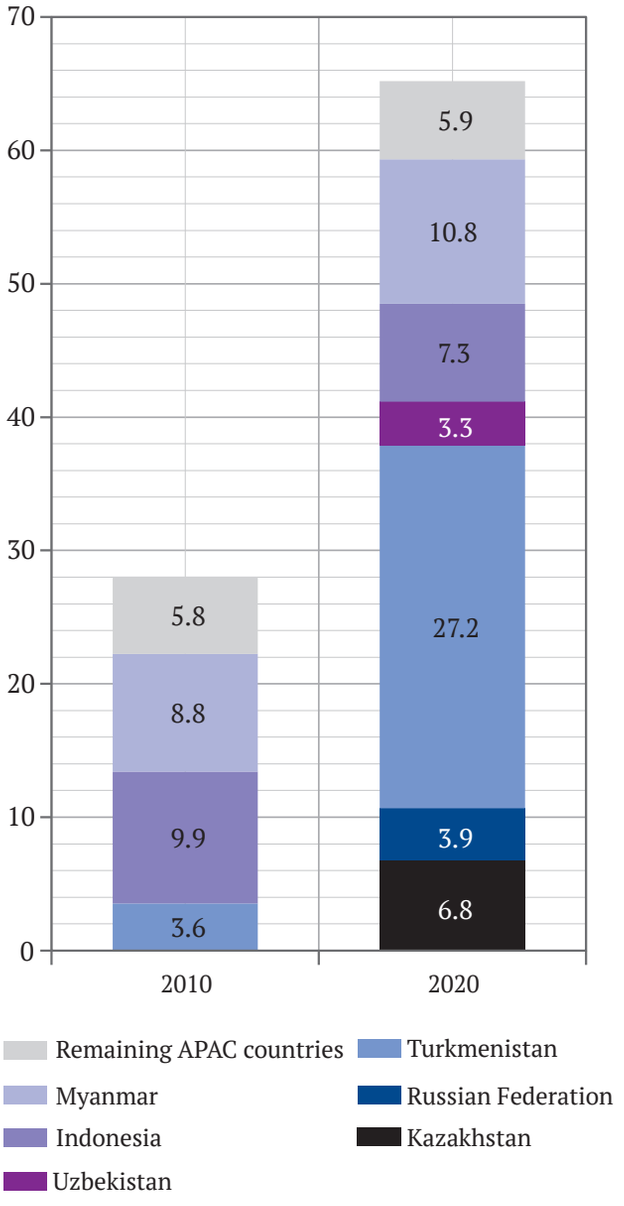

Fig. 2. Importers of network natural gas in the Asia-Pacific region for 2010 and 2020 (billion cubic meters)

Nevertheless, the analysis of the estimates for the two scenarios "net-zero" (full implementation of measures and policies to reduce emissions by 95 % compared to 2018) and "business-as-usual" (continuation of national development paths, including a contribution to reduce greenhouse gas emissions by 10 % compared to 2018) shows, that by 2050, in case of implementation of the first scenario (share of energy obtained from RES – 60 %) and the second scenario (share of energy obtained from RES – 21 %), the share of energy to be obtained from natural gas will be sustainable 13–16 %, the share of nuclear energy and hydropower – 6–9 % (**Table 3**).

The development of alternative energy sources is not a direct strategic threat that will completely displace natural gas from the energy mix in the region; rather, it can only slow the growth of natural gas consumption in the region.

Imported gas substitution in the Asia-Pacific region by domestic sources. Regarding the development potential of conventional gas sources, we can note the resource potential in APAC, namely 16.6 tmc of proven gas reserves in 2020 (8.8 % of the world reserves), 50 % of which is concentrated in China (gas production growth is defined by the above-mentioned national *14th Five-Year Plan*)[10]. In India, in response to the high share of imported LNG in the country's energy balance, there are medium-term plans to increase gas production in the Bay of Bengal[11].

In addition to traditional sources, unconventional gas sources, especially shale gas, of which China also has the largest reserves in the region, are being actively developed [7]. If the long-term plan is fulfilled, the country will be able to extract an additional 80–100 bcm of gas per year from shale gas by 2030, replacing its imports. However, given the negative impacts of hydrofracking technology in shale gas extraction, the achievement of the goal could be questioned while the opposite national goal is set to improve the environment in the PRC.

Of particular interest are the gas hydrates or clathrates, whose deposits are found in China (northern region of the South China Sea), India

[10] Bp's Statistical Review of World Energy 2021. URL: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html

[11] The expert predicts an increase in gas production in the Bay of Bengal. URL: https://1prime.ru/gas/20211008/834907858.html

(Bay of Bengal), and Japan (Nankai Trough) [20]. China and Japan are already researching methane hydrate production[12], but available production technologies make it unprofitable.

The development of conventional and unconventional gas sources in the Asia-Pacific region to replace imports of this energy resource is one of the significant strategic threats to the development of the strategic direction to expand natural gas exports from the Far East to the Asia-Pacific region. However, it can have the greatest impact only in the long and ultra-long term, as it depends on technological and technical development in the production of such energy resources in the Asia-Pacific region.

[12] Gas hydrates: science and application. URL: https://www.kommersant.ru/doc/4750809

Table 3

Forecast estimates of energy production from "clean" energy sources in the energy balances of the Asia-Pacific region (EJ)

Source	Country/Region	Reference indicator	Net Zero Scenario		Business-as-usual Scenario	
		2018	2030	2050	2030	2050
Primary energy consumption	APAC	249	297	316	306	349
	China	136	155	139	159	155
	India	34	53	77	54	86
	APAC remaining contries	41	54	68	56	76
Natural gas	APAC	30	43	42	47	57
	China	10	19	19	22	24
	India	2	6	9	4	9
	APAC remaining contries	10	12	10	13	16
Atomic energy	APAC	5	12	29	10	20
	China	3	6	17	6	14
	India	0	1	5	1	3
	APAC remaining contries	0	1	2	0	1
Hydro energy	APAC	15	21	28	20	23
	China	11	13	17	13	14
	India	1	2	3	2	2
	APAC remaining contries	2	4	7	4	5
Solar energy	APAC	3	25	83	12	29
	China	2	13	36	8	13
	India	0	5	26	2	9
	APAC remaining contries	0	2	12	0	3
Wind energy	APAC	4	26	79	15	33
	China	3	15	31	11	19
	India	1	6	20	2	8
	APAC remaining contries	0	2	21	0	4
Bioenergy	APAC	2	14	27	5	9
	China	1	7	10	3	4
	India	0	3	8	1	2
	APAC remaining contries	1	3	7	1	2

Source: compiled by the author based on Energy Outlook – 2020 edition. BP. URL: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2020.pdf

Conclusion

Thus, the identified strategic opportunities "Asia-Pacific as an energy window of opportunities" and "Environmental window of opportunities in the Asia-Pacific region" emphasize the large-scale expansion high potential of pipeline gas export from the Far East. The identified strategic threats ("competition in the APAC natural gas market", "competition from alternative energy sources" and "imported gas substitution in the APAC with domestic sources") cannot have a significant impact on the identified opportunities at least in the short and medium term. The concentration of a whole range of stakeholders (global, national, public, regional, sectoral, corporate) [6], the high resource and technology potential [1], and the scale of projects related to pipeline gas export (exploration and development of gas fields, increase of natural gas production in the region, infrastructure development) will increase the economic and social impact [21]. All this underpins the multiple expansion of the network gas export as a strategic orientation of the gas industry in the Far East, the implementation of which will give a multiplicative impetus to the socio-economic development of the Far East Federal District [22].

References

1. Sasaev N.I. Strategic diagnostics at the Russian Far East gas industry. *Russian Journal of Industrial Economics*. 2021;14(4):355–368. (In Russ.). https://doi.org/10.17073/2072-1633-2021-4-355-368

2. Leonidova E.G., Sidorov M.A. Structural changes in the economy: searching for sectoral drivers of growth. *Economic and Social Changes: Facts, Trends, Forecast*. 2019;12(6):166–181. (In Russ.). https://doi.org/10.15838/esc.2019.6.66.9

3. Aganbegyan A.G. Development of the Far East: a national program in the context of national projects. *Prostranstvennaya Ekonomika = Spatial Economics*. 2019;15(3):165–181. (In Russ.). https://doi.org/10.14530/se.2019.3.165-181

4. Darkin S., Kvint V. *The Russian Far East: strategic priorities for sustainable development*. Boca Raton: CRC Press; 2016. 166 p.

5. Novikova I.V., Darkin S.M., Kvint V.L. *The Russian Far East: strategic development of the workforce*. NY: Apple Academic Press; 2020. 176 p. https://doi.org/10.1201/9781003132158

6. Sasaev N.I. Strategizing of the Russian Far East gas industry: systematization of main interests. *Strategizing: Theory and Practice*. 2021;1(2):242–251. (In Russ.). https://doi.org/10.21603/2782-2435-2021-1-2-242-251

7. Sasaev N.I. *Theoretical foundations and methodology of the Russian gas industry development strategy*. St. Petersburg: NWIM RANEPA; 2019. 176 p. (In Russ.)

8. Kvint V.L., Fetisov V.A., eds. *The fundamentals of Russia's environmental development strategy*. Moscow: Moscow University press; 2021. 77 p. (In Russ.). URL: http://www.cnshb.ru/Vexhib/vex_news/2021/vex_211120/04035194.pdf (accessed on 01.02.2022).

9. Sasaev N.I. Diversification of natural gas export flows as the strategic priority for the development of the Russian gas industry. *The Economic Revival of Russia*. 2019;3(61):185–196. (In Russ.). URL: https://e-v-r.ru/wp-content/uploads/2019/09/1_EVR_3_61_2019_gr.pdf (accessed on 01.02.2022).

10. Zakharov A.N., Rusak N.A. Development of gas exports from Russia to China. *Russian Foreign Economic Journal*. 2020;(4):83–86. (In Russ.). URL: http://www.rfej.ru/rvv/id/000340FF6 (accessed on 01.02.2022).

11. Fadeev A.M. Implementation of energy projects on the Arctic shelf as a driver of socio-economic development of territories. *Arktika 2035: Aktual'nye Voprosy, Problemy, Resheniya. = Arctic 2035: Current Issues, Problems, Solutions*. 2020;3(3):56–63. (In Russ.). URL: https://porarctic.ru/ru/upload/ARKTIKA_3-2020.pdf (accessed on 01.02.2022).

12. Kvint V.L., Okrepilov V.V. Quality of life and values in national development strategies. *Herald of the Russian Academy of Sciences*. 2014;84(3):188–200. https://doi.org/10.1134/S1019331614030058

13. Kvint V.L. Strategic planning in Russia and the World: importance of human interations. *Economics and Management*. 2014;11(109):15–17. (In Russ.). URL: https://cyberleninka.ru/article/n/strategirovanie-v-rossii-i-mire-stavka-na-cheloveka/viewer (accessed on 01.02.2022).

14. Livchits V.N., Mironova I.A., Shvetsov A.N. Evaluating investment projects efficiency in various conditions. *Russian Journal of Industrial Economics*. 2019;12(1):29–43. (In Russ.). https://doi.org/10.17073/2072-1633-2019-1-29-43

15. Kvint V.L. *Strategy for the global market: theory and practical applications*. NY: Routledge; 2016. 519 p.

16. Kvint V.L. *Konzepte der strategie: impulse für führungskräfte*. Munchen: UVK Verlag; 2021. 128 p.

17. Sasaev N.I. Fundamental basis for the formation of a new strategizing culture. *Russian Journal of Industrial Economics*. 2021;14(2):153–163. (In Russ.). https://doi.org/10.17073/2072-1633-2021-2-153-163

18. Kvint V.L., ed. *Strategizing of Kuzbass region economic and investing development*. Kemerovo: KemSU; 2021. 364 p.

19. Kvint V.L., ed. *Strategizing of Kuzbass region ecological development*. Kemerovo: KemSU; 2021. 416 p. (In Russ.). https://doi.org/10.21603/978-5-8353-2797-3

20. Shakirova M.V., Obzhrov A.I., Sokolova N.L., Telegin Yu.A., Shakirov R.B. Features and methods of investigation of underwater gashydrates and its resources in the seas of East Asia. *Underwater Investigations and Robotics*. 2020;3(33):63–71. (In Russ.). https://doi.org/10.37102/24094609.2020.33.3.008

21. Filimonova I.V., Provornaya L.V., Nemov V.Yu., Shumilova S.I. «The power of Siberia» gas pipeline as the basis for the new gas production and processing center formation in the East of the country. *Gazovaya Promyshlennost' = Gas Industry*. 2019;5(784):86–95. (In Russ.). URL: http://www.ipgg.sbras.ru/en/science/publications/publ-gazoprovod-sila-sibiri-osnova-formirovaniya-8695-2019 (accessed on 01.02.2022).

22. Tatarenko V.I., Kamalov R.D. Resource potential as a factor of economic growth of siberian regions. *Economics Profession Business*. 2019;(1):61–64. (In Russ.). https://doi.org/10.14258/201908

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