ББК 65.441
УДК 336

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ФИНАНСИРОВАНИЕ ЭНЕРГЕТИЧЕСКОЙ ОТРАСЛИ

В статье представлен анализ инвестиционного проекта строительства когенерационной теплоэлектростанции в Краснодарском крае, имеющий, наряду с экономическим и социальным эффектом, важное экологическое значение, а также возможности его масштабирования. Организация финансирования проекта была осуществлена российским коммерческим банком без гарантий, дотаций или иных форм государственной прямой или косвенной финансовой поддержки. По мнению автора, участвовавшего в разработке проекта, программы инфраструктурного развития и технического переоснащения энергетического комплекса объективно должны повышать спрос на технологии проектного финансирования и финансовые инновации.

Ключевые слова: зеленые и энергосберегающие технологии, когенерация электрической и тепловой энергии, энергетический комплекс.

Green finance challengies

Despite the considerable growth and positive dynamics, the world keeps experiencing a huge gap between the supply of and demand for financial resources necessary to restructure the highly cost-, energy- and resource-consuming technologies onto the green economy principles. According to the WEF (The Green Investment Report), until 2030 the annual demand for infrastructure investments is USD 5 trillion in such sectors as farming, transport, power and water supply only, given the current rates of economic growth, while the total volume of the global climate-aligned bonds universe was just USD 0.7 trillion in 2016, as calculated by the Climate Bonds Initiative. Financial development institutions - as well as the existing institutional investors - are unable to fully meet the demand for financing the green economy - these institutions have their own priorities and the green growth principles are not always put in the first place.

Meanwhile, the green technologies are frequently associated with higher risks for investors - especially when compared to the traditional technologies based on fossil fuels. In addition, the green technologies often require higher capital investment, especially in the early stages of development, introduction and commercialization, which also deters the investors. Besides, additional environment-related requirements burden time and again the economics of already capital-consuming investment projects. Many green projects do not fit into the lending and investment policies and project selection criteria of commercial banks, who, on the one hand, must answer their shareholder expectations of the invested capital returns by volume and timing and, on the other hand, meet the rigid statutory requirements set by the regulator. As for the

Russian banking sector, there also exists such problem as the shortage of long-term financial resources, while exactly this type of resources is necessary to implement most of the green investment programs. Meanwhile, it is the commercial banks that are the main supplier of capital in the global market of project financing and rates of green economy growth will largely depend on whether they will be able to «step in».

Besides, quite ambivalent is the role of regulator represented by the national bank, as well as that of the Ministry of Finance. On the one hand, these authorities can and, obviously, should contribute to the green economy development, but on the other hand, being responsible for the banking system stability, they would hardly be right to encourage commercial banks investing credit resources in green projects with higher investment risk, low profitability (in the narrow sense - without regard to environmental and social effects) and vague payback periods. For commercial banks, any financial support to such projects would mean the risk of bad debts appearing in their loan portfolio, the need of provisioning for overdue loans, justified claims from shareholders and the regulator in that respect and direct losses. Obviously, to avoid such collision of interests, a search is needed primarily for such directions of green investment that would meet the requirements and expectations of all the parties involved. Alongside this, the improvement of regulatory framework will surely be required using worldwide experience in this field. Finally, more attention should be paid to the «green finance» theme by specialized financial structures aimed at financing new technologies and start-ups, such as the Russian Venture Company and the Skolkovo Fund.

Meanwhile, the international and Russian practices include examples of successful implementation of relatively small investment projects that, being socially and economically significant and handling certain environmental issues, do meet the requirements of both state-owned and private financial institutions and do not require a targeted government support. There is a special case - programs of infrastructural development and technical re-equipment of the strategically important energy complex of the economy - which objectively raise the demand for project finance technologies and financial innovations.

Project competitive advantages highlights

The frame of the project - to provide Yeisk`s constantly growing needs in heat and electric power with the help of alternative energy sources - gas-fired cogeneration heat and electric power station with a capacity of 18 MWa.

 Support to the project from the city authorities and Territory government. Thus, a Letter of intent was received from administration of Yeisk in accordance with which it trusts the management of majority stake in «Yeisk Municipal Power Networks» Open Joint-Stock Company (that is not less than 51% over the period not less than the validity of credit agreement) to «Yeiskaya TES» LLC.

 Since the specific feature of electric power being a kind of commodity involves an absolute dependence on the network transmission capacity, this agreement reduces the risk to the project

 High technological level of gen-

erating energy using the cogeneration method and transmission to consumer over a short haul (avoiding high-voltage networks) provides competitive advantages in comparison with prime suppliers of electric and heat power who produce their output separately – using boiler units of «Yeisk Heating Systems» Municipal Unitary Enterprise and thermal stations of «RAO EES»;

 Along with less fuel consumption during production, there are no costs connected with high-voltage network transmission of energy, and that saves 20 % of present energy charges;

 The use of secondary heat makes costs of production twice as little in comparison with generation of heat using boilers of «Yeisk Heating Systems»;

 Quality of the produced electric power always conforms to requirements of Government Standard, unlike that of «RAO EES»

 Use of energy-saving technologies, which increase the efficiency of electric power plant at the expense of beneficial use of rejected heat up to its full industrial reclamation;

 Transmission of the produced electric power to the consumer with minimum transportation costs;

 Conformance to International Quality Standards and use of high-quality technological equipment to stand against physical and moral ageing of power plants and distribution grids, who do not meet the tightened requirements of electrical authorities in the field of ecology, efficiency of fuel consumption, reliability and safety;

 The use of innovative technologies in air-fuel mixture combustion lowers the level of emission toxicity, that comprises the prime factor for health-resort city;

 The project implementation also presupposes new job creation for highly knowledgeable specialists, and increasing of budgets of all levels at the expense of significant tax revenues.

Russian energy sector development financial aspects

The key development objectives of Russian energy sector comprise:

- encouragement of investment to energy sector and promotion of energy-saving technologies;

- providing a stable and predictable tariff policy without excessive impact on consumers;

- increasing reliability of domestic power sector, its technological modernization based on power efficiency and energy-saving;

- elimination of local deficiencies in power generating facilities.

The existing conditions of hard market competition, including the intersector one, require greater flexibility towards potential investors who are prepared to invest in the development of generating facilities and grids – the priority measures should include:

- tax reliefs for investment in new power facilities;

- government guarantees and subsidies for loans on the energy sector development;

- scaling of investment programs in regions, including based on the promotion of domestic manufacture of energy-saving equipment;

- government participation in funding the energy sector, effected mostly on co-financing conditions and providing a long-term resource base - however, the government participation should not be a single option, it should not lead to excessive budget burden and

economically unreasonable centralization of sectoral investment programs.

The principal sources and ways of raising finance for energy sector in the Russian and international financial markets include: project sponsors' own funds, strategic and portfolio investment of financial partners, equity financing, project bond issues, budgetary funding, government guarantees, debt instruments (project loans, leasing schemes, etc.). Because of substantial wear and tear of power facilities, high capital intensity of investment projects and social aspect of tariff and sale policy in the industry, their financial implementation strategy should be evidently based on the principles of Public Private Partnership (PPP). Alongside this, bank syndicating and club lending to the most efficient and demanded energy projects of average capital intensity may turn viable enough at the level of financing regional investment energy programs, including those of small energy generation development. With regard to mergers and acquisitions taking place in the industry and prospects for emergence of new (including foreign) owners of generating companies, more urgent becomes the improvement of regulatory and legal mechanism for respective transactions that would ensure equal rights for all participants in this process and stimulate both Russian and foreign capital to invest in renewal of domestic energy sector.

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ENERGY COMPLEX FINANCING (CASE STUDY)

This paper presents a case study of a project having demonstrated pronounced environmental dedication, evident social and economic effects and the possibility of wide scaling. Funding for the project was provided by the Russian commercial bank without guaranties, subsidies or any other instruments of direct or indirect support from the state. There is a special case - programs of infrastructural development and technical re-equipment of the strategically important energy complex of the economy, which objectively raise the demand for project finance technologies and financial innovations.

Key words: green & energy saving technologies, heat and electric power cogeneration, energy complex.

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