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The role of non-financial reporting in developing a strategy for increasing the energy efficiency of the company of the russian fuel and energy complex

El papel de los informes no financieros en el desarrollo de una estrategia para aumentar la eficiencia energética de la compañía del complejo de combustible y energía

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ABSTRACT:

This article analyses the role of non-financial reporting companies in the Russian fuel and energy sector in the development of its energy efficiency strategy. The competitiveness of energy companies in the modern market is determined by the characteristics of their sustainable development, including social, economic and environmental sustainability. The paper proposes a proprietary approach to assessing the energy efficiency of energy companies from the point of view of their sustainable development based on the data published by companies in non-financial reporting. The authors analysed the current requirements of various international organisations for non-financial reporting in order to unify them. The features of the development and compilation of non-financial reporting of energy companies on the example of environmental reports (reports on greenhouse gas emissions) are considered. Recommendations for improving the efficiency of the compiled reports in the field of sustainable development, social and environmental reports are proposed. There are possibilities of using the materials of these reports in the development of strategic measures for energy efficiency.

Keywords: sustainable development, non-financial reporting, energy efficiency, oil and gas companies

RESUMEN:

Este artículo analiza el papel de las empresas de informes no financieros en el sector de combustibles y energía en el desarrollo de su estrategia de eficiencia energética. La competitividad de las empresas de energía en el mercado moderno está determinada por las características de su desarrollo sostenible, incluida la sostenibilidad social, económica y ambiental. El documento propone un enfoque patentado para evaluar la eficiencia energética de las compañías de energía desde el punto de vista de su desarrollo sostenible basado en los datos publicados por las compañías en informes no financieros. Los autores analizaron los requisitos actuales de varias organizaciones internacionales para la presentación de informes no financieros con el fin de unificarlos. Se consideran las características del desarrollo y la compilación de informes no financieros de compañías de energía en el ejemplo de informes ambientales (informes sobre emisiones de gases de efecto invernadero). Se proponen recomendaciones para mejorar la eficiencia de los informes compilados en el campo del desarrollo sostenible, informes sociales y ambientales. Las posibilidades de utilizar los materiales de estos informes en el desarrollo de medidas estratégicas para la eficiencia energética.

Palabras clave: desarrollo sostenible, informes no

1. Introduction

The development of a modern economy is increasingly linked to the concept of sustainable, harmonious or balanced development. Within this concept, the processes of economic and social change, the use of natural resources, the direction of investment, the orientation of scientific and technological development, personal development and institutional changes should be coordinated with each other and serve to strengthen the capacity to meet human needs. In the first place, achieving this goal is served by rational use of resources, which is aimed at satisfying human needs while preserving the environment. The satisfaction of not only real needs but also the needs of future generations is seen as important. This definition was formulated by the United Nations World Commission on Environment and Development (WCED), known as the Brundtland Commission. When creating a commission, the UN General Assembly recognised that environmental problems are global in nature and their solution is in the common interest of all countries. The recognition of the goals of sustainable development of the economy at the global and national levels required the concretisation of many practical aspects of the implementation of this approach at the level of industries and individual economic entities. First of all, it concerns the issues of collecting and analysing data on the activities of companies in new cuts. Secondly, it is the transformation of the business planning system in accordance with the new goals and requirements.

The traditional management system based on financial and economic analysis requires significant changes by adding a number of additional criteria that characterise the environmental, social and other aspects of the activities of companies that ensure its sustainable development, as well as the stability of the surrounding economic entities. The UN Global Compact (UNGC) on sustainable development, which today unites more than 13,000 participants from almost 160 countries of the world, should be considered a fundamental document in this activity. The Global Compact has reflected a new responsible approach to the role of business in achieving universal well-being; Corporate Sustainability has come to be understood as the creation of long-term value by a company in financial, environmental, social and ethical terms. Today, the incorporation of the principles of the sustainable development goals (SDGs) into the corporate system and public confirmation of their implementation in practice are widely recognised indicators of responsible business practices and fair reputation necessary for entering international level activities and partnerships. A number of reputable international organizations have initiated work to create a regulatory framework for the formation of non-financial reporting. The main milestones in this area include the following:

- 2017 The recommendations of the European Commission for non-financial reporting (information disclosure methodology) are prepared in accordance with the Council of Europe Non-Financial Information Disclosure Directive (2014/95 / EU).
- The recommendations of the European Commission for non-financial reporting (information disclosure methodology) are prepared in accordance with the Council of Europe Non-Financial Information Disclosure Directive (2014/95 / EU).
- 2015-2017 Transforming our world: the Sustainable Development Agenda until 2030, UN resolution A/RES/70/1. Indicators for monitoring the implementation of the UN SDGs until 2030.
- 2016 The new cooperation platform under the auspices of the UN - Financial Innovation Platform (search for financial instruments for the implementation of the SDGs) - brings together development institutions, the financial community, large companies.
- 2015 Guide to ESG (Environmental, social and corporate governance) Information to Investors, a guide addressed to stock exchanges for use with issuers, United Nations Sustainable Stock Exchange Initiative (SSE) (Kreydenko, Chernyaev, Grigorieva, & Korenevskaya, 2018). 58 exchanges confirmed their intention to promote the principles of sustainable development, to introduce recommendations to issuers on the disclosure of ESG information.
- 2015 Exchange Guidance and Recommendations on Sustainability (Set of indicators and recommendations for their disclosure) Sustainability Working Group WFE (The World Federation of Exchanges) ("Official website of The Sustainable Stock Exchanges," n.d.).
- SASB published standards for the disclosure of information on 79 industries.
- AA1000 updates the contents of two standards: AccountAbility Principles (AP) and Assurance Standard (AS). The new version of the AA1000AP standard should provide a "relevant and verifiable set of principles that organizations can use to identify, prioritize, and respond to sustainable development objectives."

- ISO introduces a new ISO 37001: 2016 management system for the prevention of corrupt practices (bribery).
- ISO 20400 standard "Sustainable procurement". The manual is still under development. New standard on the implementation of sustainable development principles in procurement processes. Until the end of 2017, the discussion of the project will continue.
- Natural Capital Protocol and Environmental Reporting Framework. In 2016, the Council of Europe officially recognized the Protocol developed by the Natural Capital Coalition. In addition to this Protocol, the Environmental Reporting Framework was developed to provide information on environmental performance in a form convenient for investors.

In the European Union, from 2018, mandatory non-financial reporting is introduced for companies (numbering more than 500 employees and meeting certain criteria).

2. Methodology

In world practice, there has not yet been a generally accepted methodology for assessing the sustainability of companies, covering all the modern features of the development of individual enterprises and the industry as a whole. At the same time, in international practice, there is a tendency of regulatory regulation to converge the content of both financial and non-financial reporting. International business practice implies that the use of non-financial reporting will allow the company to solve the most likely problems in the field of sustainable development due to the presence of typical practices of their operation.

Thus, the methodological tools for studying the level of sustainable development of an oil and gas enterprise in terms of achieving energy efficiency include an analysis of indicators for all types of sustainability. In this analysis, it is necessary to consider not only the indicators that the company independently develops and includes in the corporate report of sustainable development, but also integral indices that evaluate the relationship between the individual parameters of all types of sustainable enterprise development: economic, social, environmental, technological, financial, managerial and etc.

The analysis of non-financial reporting of the fuel and energy companies will be conducted in terms of the possibility of assessing the sustainability of the following indices:

Management of sustainable development of energy companies based on energy efficiency assessment;

The energy efficiency of the company's economic sustainability;

The energy efficiency of socio-economic sustainability of the company;

The energy efficiency of the social sustainability of the company;

The energy efficiency of ecological and social sustainability of the company;

The energy efficiency of the company's environmental sustainability ("Official website of World Federation of Exchanges," n.d.).

An effective tool for managing the sustainable development of an enterprise during such an analysis is monitoring of both negative and favorable factors affecting the dynamics of indicators of sustainable development proposed for calculation. The result of the monitoring should be a program of measures aimed at preventing the factors hampering the sustainable development of the enterprise.

2.1. Non-financial reporting of TEK companies as a basis for developing their development strategy

Non-financial reporting is a worldwide trend, while the completeness of reports and coverage of companies that provide them is constantly expanding. The most voluminous document in the list of non-financial reports is the Sustainable Development Report.

The UN General Treaty declares 10 basic principles of sustainable development, divided into 4 groups such as human rights, labor relations, environment, anti-corruption.

In order to unify the reporting of companies on meeting the requirements of sustainable development, a standard form of reporting was developed and approved, reflecting all the main non-financial development criteria. This form is known as the G4 Sustainability Reporting Guidelines, developed as part of the Global Reporting Initiative (GRI) ("Official website of Global Reporting Initiative," n.d.).

Sustainability reporting helps organisations set goals, measure performance, and manage change to make their operations more sustainable. The Sustainable Development Report discloses information on the impact of the organization (both positive and negative) on the environment, society and the economy. The preparation of such a report makes abstract topics tangible and specific, thereby facilitating the analysis and control of the impact of changes in sustainable development on the organization's activities and strategy. The G4 Guidelines are universal and can be applied by all organisations, large and small, in all countries of the world. Using standard reporting elements and indicators allows you to make available and comparable information contained in reports on sustainable development, and provide interested parties with better information for decision-making. These reports are compiled by organisations on a voluntary basis and are freely available in the relevant database ("Database," n.d.). They can be used to analyse the current activities of organisations and their development strategies. The first part of the G4 Guidelines contains a description of the Principles of Reporting, Standard Reporting Elements, and the criteria to be applied when preparing the report. The second part (Application Instructions) explains how the Principles of Reporting should be applied and prepare information for disclosure, as well as how to interpret the various concepts contained in this Guide.

The guide provides the opportunity for the organisation to prepare one of two options for a report on sustainable development - standard and advanced. Both options can be used by any organization, regardless of their type, size, industry sector or location.

The report is formed from several groups of indicators. First, these are common standard reporting elements:

- Strategy and analysis
- Organisation profile
- Identified Essential Aspects and Boundaries
- Interaction with stakeholders
- Report Overview
- Corporate Governance
- Ethics and integrity

Secondly, these are specific standard reporting elements:

- Information about management approaches
- "Economic" category
- "Ecological" category
- "Social" category

Each of the specified categories is divided into subcategories with its objectively measured criteria.

Along with the general report of G4 (Group of 4), there are its industry-specific additions, reflecting the specifics of the activities of companies in certain sectors of the economy. In particular, the activities of the fuel and energy complex fall under two additions: "The energy sector" and "The oil and gas sector" ("Database," n.d.).

The development of an organisation's non-financial reporting system is directly related to changes in the organisation's business planning system. Today in the Russian Federation the main method of business planning is the budget approach or the cost-benefit method, which is provided for by domestic and international investment valuation standards ("Guide," 2014). However, the limited financial approach to the analysis of strategic decisions requires the use of other approaches. For example, there is a method for calculating the development effectiveness criteria (Criteria for Evaluating Development Assistance) ("Criteria," n.d.). This methodology was developed by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (DAC of the OECD) and its use is mandatory for all projects that use budget funds or tax preferences. The technique, along with the traditional financial indicators considers non-financial effects:

- Relevance – the degree of compliance of the project objectives with the development needs of the country, existing programs, the interests of the project beneficiaries.
- Efficiency – the degree of comparison of the results/effects of the project with the resources/costs of its implementation.
- Effectiveness – the degree of achievement of the planned objectives/results of the project (considering the introduction of approved changes).

- Sustainability – the project’s ability to generate long-term positive effects (including social and environmental) in the future; project elasticity to risk throughout the life cycle.
- Impact – positive or negative changes caused by the project, direct or indirect, planned or unplanned.

Each aspect is characterized by its own set of indicators. Next, data is rolled up (DEA method - Data Envelopment Analysis method) based on expert assessment of the significance of various performance indicators (economic, budgetary social and environmental) and building a target function of the ratio of the sum of weighted benefits to the sum of weighted costs. As can be seen, the analysis methods are shifting from the “cost-benefit” analysis (CBA) in favor of the multi-criteria analysis considering non-financial criteria. In world management practice, one can clearly observe a shift in emphasis from financial performance indicators to the systemic and external effects of investment projects (RBM (Results-based management) approach) (“Results-Based Programming,” 2015).

Practical use of DAC and RBM is associated with the analysis of indicators of sustainable development, and therefore for its implementation requires appropriate reporting, making it possible to track the dynamics of various aspects of the company and compare the results with other companies.

Many aspects of sustainable development stipulated by foreign standards are not perceived by domestic companies as significant. This explains the extremely low activity on the formation of such reports. The availability of such reporting inside the country is not mandatory and objectively necessary for the development of business cooperation. Therefore, overwhelmingly, companies focused on export or on active interaction with foreign partners become GRI participants. Fuel and energy companies belong to this category and are potentially interested in developing non-financial reporting indicators.

For domestic fuel and energy companies, the environmental aspect of activity should be considered the most relevant. This is due to the strong negative impact of this sector on the environment due to technological backwardness and relatively mild environmental legislation. The improvement of the environmental situation is required both by the real situation in a number of regions and by the international agreements of the Russian Federation in particular on the reduction of greenhouse gas emissions. For the analysis of the environmental aspect of G4 management, a number of special indicators are assigned to the category of environmental. The environmental category covers impacts associated with the resources consumed and the waste created (for example, emissions, discharges, and wastes). It also covers impacts related to biodiversity, transport, products, and services, as well as compliance with environmental legislation and environmental costs.

Indicators of sustainable development in domestic enterprises are being introduced only fragmentary and only because of external necessity. For example, the oil and gas complex has one of the most significant environmental impacts; its share of greenhouse gas emissions is 26% (Usov, Barsola, & Lukin, 2017). Accordingly, the activity of the sector is directly subject to the international agreements of Russia on limiting emissions, which increases the level of control by the state and a number of public organisations (“Agreement,” 2016). There are a number of legal regulations obliging the fuel and energy complex companies to form environmental reporting, and companies’ activities in the field of reducing greenhouse gas emissions are becoming an important factor in their investment attractiveness and competitiveness.

Environmental problems throughout the world are considered as the most urgent, and it is by their example that the processes of introducing non-financial reporting forms of enterprises should be considered. Tough measures have led to the fact that about 82% of companies in the world began to provide carbon reporting, in some countries, for example in Germany and the UK, reporting has become mandatory and 100% of companies provide it. At the same time, more than half of the companies include in the report medium and long-term goals and commitments to reduce greenhouse gas emissions. About half of the companies demonstrate an understanding of the economic benefits of low-carbon development and provide an appropriate justification for their commitments. Also, about two-thirds of all companies use an independent audit of their activities to ensure consumer confidence in the objectivity, completeness, and accuracy of the information provided.

The Russian practice of forming hydrocarbon reporting is forced to follow in line with global trends. If recently the reporting covered mainly processes related to the production of consumed electric and thermal energy, now in world practice more and more enterprises are exploring the possibilities of expanding the scope of control over emissions from operating activities to the

entire life cycle of goods and services produced. This is the so-called carbon footprint, which is a quantitative estimate of total greenhouse gas emissions over the product's life cycle - from the moment raw materials are extracted to disposal and the final disposal of waste, reduced to a unit of output.

According to estimates by the independent organization CDP ("Carbon Disclosure Project," n.d.), the total emissions of greenhouse gases in the supply chain exceed the direct and energy indirect emissions from production processes on average by a factor of two. For this reason, companies must consider the carbon intensity of not only their processes but also procured goods and services. The emergence of international standards for hydrocarbon trace accounting ("ISO TS 14067-2013", 2013) immediately led to the emergence of corresponding domestic analogues. ("OST R 56276-2014, 2013") Fuel and energy companies are large exporters and the lack of necessary environmental information about their activities makes it difficult for their foreign partners to have such information. Moreover, reporting should be verified and recognized as reliable by independent experts, which is provided for by relevant international requirements ("ISO 14064-3-2006," 2006). From this we can conclude that the development of the domestic system of non-financial environmental reporting is directly related to the export potential and competitiveness of our products and services. The creation of a carbon reporting mechanism in Russia, recognised in most G20 countries, will help to overcome the contradictions between the priorities of domestic and international policy. However, one should not forget that hydrocarbon reporting is only one of many aspects of ensuring sustainable development.

Statistics show that not all fuel and energy companies are ready to share environmental information. According to the International Greenhouse Gas Emission Data Disclosure Project, it showed that in 2017, only 18 Russian companies submitted reports at the request of CDP ("Climate," 2017). He made his debut in the rating of Aeroflot, Rosneft, Inter RAO and AFK Sistema. These companies were given a rating of "C", which corresponds to the world average. At the same time, 40 Russian companies to which CDP sent its request on behalf of leading international investors did not provide data at all.

CDP research is used by more than 800 investors worldwide. It is believed that data on greenhouse emissions and water use are directly related to the market capitalization of oil companies. Nevertheless, Rosneft and a number of other fuel and energy companies did not respond to the CDP request (Brus, 2017).

The problem is seen in the fact that today the PSL reports are formed on a voluntary basis. The only exceptions are a number of environmental indicators, for example, greenhouse gas emissions. Such reporting was initially voluntary, but gradually in most developed countries, it became a mandatory one. The main purpose of the functioning of national carbon reporting systems is to create an effective and economically sound instrument for controlling greenhouse gas emissions across the country. The voluntary nature of carbon reporting has been preserved only in cases where the state has no quantitative emission reduction commitments or no legal consequences for not implementing them. In most countries, they used the principle of voluntariness at the initial stage, to test the functioning of the system and prepare the regulatory framework for the introduction of a mandatory reporting system. In this case, the voluntary reporting system may cover certain categories of large sources of greenhouse gas emissions or individual regions with the subsequent extension of experience to the national level.

National mandatory carbon reporting systems are created for:

- establishing emission standards and monitoring their compliance in systems for trading permits for greenhouse gas emissions;
- control emissions from large sources;
- stimulation of reducing emissions (emission distribution evaluation practices);
- increasing the energy independence of states through improving the energy efficiency of the economy;
- understanding of resources and energy saving reserves and development of measures to achieve them, incl. in the form of government programs.

In some countries, there are several carbon reporting systems operating at the same time to regulate various aspects of the national economy and its impact on climate. So, in the UK, there are 4 national carbon reporting systems:

- Climate Change Levy (CCL) – climate taxation system;
- EU Emission Trading Scheme (EU ETS) – European Union Emissions Trading System;

- Carbon Reduction Commitment (CRC) – Carbon Reduction Agreement;
- DEFRA Guidance on voluntary GHG (greenhouse gas) reporting – Manual DEFRA (Department for Environment, Food and Rural Affairs) on voluntary reporting on greenhouse gas emissions.

Non-financial carbon reporting in foreign companies, as a rule, is prepared to provide information on the climate aspects of the company's activities to interested parties (government agencies, investors, the public) and increase competitiveness by:

- reduce costs through the development and implementation of programs;
- energy savings based on greenhouse gas emission data;
- attracting investments through joint implementation mechanisms;
- emission control obligations;
- managing climate change risks;
- improve the environmental image of the company.

Non-financial carbon reporting includes:

- characteristic of the company and its effect on greenhouse gas emissions at various stages of production and management;
- greenhouse gas emissions by type of activity of the company, by the territorial and organizational structure of the company, by year and by type of greenhouse gases (CO₂, CH₄, N₂O, SF₆, PFC, and HFC) (carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons, and hydrofluorocarbons) with a description of the main laws;
- information about the company's ongoing projects, programs, and initiatives to reduce the negative impact on climate.

The carbon reporting of Russian companies in corporate reporting has the following features:

- Carbon reporting is characterized by weaker development compared with foreign experience;
- GRI Guidelines and its industry-specific applications are most widely used for the preparation of non-financial reporting, most Russian companies are also guided by the Basic Indicators of the Russian Union of Industrialists and Entrepreneurs performance;
- Many Russian companies have data on greenhouse gas emissions, but do not disclose them as part of non-financial or integrated reporting;
- Most Russian carbon reporting companies do not disclose information under the CDP project.

In general, it can be noted that in Russia a full-fledged institute for the preparation and use of non-financial carbon reporting has not been formed. Existing achievements are mainly related to the requirements of state structures, voluntary reporting forms do not find understanding in the domestic business.

The development of a system for controlling emissions of greenhouse gases and the inclusion of the so-called "greenhouse footprint" led to the emergence of a number of additional standards and requirements for ensuring the safety of activities. The extraction of any minerals and energy production is always associated with a large amount of energy and resource-intensive construction and installation work, which can also have an impact on the environment.

All national standards of ecological building are at the heart of any approach of the BREEAM (Building Research Establishment Environmental Assessment Method) standard, developed by the research institute in the field of construction in the UK (Building Research Establishment - BRE), and LEED (Leadership in Energy and Environmental Design), promoted by the US Green Building Council (US GBC). Therefore, the analysis of foreign approaches to the inclusion of the carbon component in the evaluation criteria during the environmental certification of construction projects focuses on these two "schools". The advantages of using green standards in construction are:

- The building is recognized as environmentally friendly, which is reflected in the price/rental rate;
- Reduce operating costs and invoices for payment of utility services;
- The use of the best available environmental and energy-efficient technologies, equipment and materials;
- Extend the building lifetime;
- Reduced frequency of current repairs;
- Creating an environmental image of the project and the company;
- Improving the design, construction and operation processes;

- Providing a comfortable working and living conditions, and, as a result, the growth of public satisfaction

These benefits have become the driving force behind the development and improvement of green building certification systems worldwide.

Analysing energy efficiency, great importance is attached to energy saving and the use of alternative energy sources, the number of points, criteria and weight of the relevant indicators are constantly growing. However, the associated reduction of GHG emissions with these indicators has not been given due attention for a long time. Another standard is PAS (publicly available specification) 2050 "Estimation of the life cycle of greenhouse gas emissions of goods and services". It is a method for calculating the carbon footprint of goods and services. It is designed to estimate GHG emissions from a company during the product life cycle, determine the sources of the highest emissions and taking action to reduce them. The results of the calculations are reflected in non-financial statements. The method serves to unify the calculations in order to ensure the comparability of the carbon footprint of various companies

International construction companies still very rarely estimate emissions (carbon footprint) over the full cycle of building construction. Basically, emission reductions are calculated when planning certification of a building according to international standards. To change this situation. The European Network of Construction Companies on R&D (Research and development) has developed a GHG Emission Calculation Guidelines for construction companies ("ENCORD," 2012). The use of the Guide is completely voluntary and is recommended if the company wants to demonstrate that it uses all of the best sustainable business practices that currently exist.

It is recommended to build the following chain of the product life cycle of a construction company: extraction of building materials - processing into building materials - transportation - construction process - operation - demolition and disposal of construction waste.

Since Russian construction companies are a very opaque business and it is very difficult to collect information on GHG emissions throughout the construction chain. However, individual construction materials seriously affect the carbon intensity of construction. For example, cement is considered one of the most carbon-intensive materials. Steel reinforcement and steel structures and concrete accounted for 90% of the carbon footprint. The fuel and energy facilities are usually very material intensive, which means their carbon footprint is large and should potentially be monitored.

The creation of green standards in construction in Russia was initiated by the Ministry of Natural Resources of Russia in 2009, the "Green Building Council" was created, which promotes the BREEAM and LEED standards and actively participates in the development and improvement of the national standard. New rules were first used in the construction of Olympic facilities in Sochi.

The requirements of green standards in construction to some extent are reflected in GOST R54954-201238 "Conformity assessment: Environmental requirements for real estate" ("Official website of the Russian Union," n.d.). Since CO₂ emissions in buildings and structures are related to fuel and energy consumption, it is possible to reduce GHG emissions by tightening energy efficiency requirements for buildings.

Currently, certification of real estate is voluntary, but in the future, the situation will change. The absence of such a certificate will not allow domestic companies to build abroad. Large domestic companies engaged in the construction of hydraulic structures, power plants and other facilities abroad should be timely prepared to tighten environmental requirements. One of the elements of such training should be the development of a system of voluntary non-financial reporting.

3. Results

3.1. Development of non-financial reporting of enterprises of the fuel and energy complex in Russia

Any form of reporting must comply with one or more international standards for the comparability of results and to ensure its recognition at the international level. In the Russian Federation, more than 5 years of work in this direction. In 2017, the Concept of development of public non-financial reporting was approved. The main objectives of the public non-financial reporting are:

- Creation a basis for the formation of a regulatory framework in the field of public non-financial reporting, including on issues of social responsibility and sustainable development;

- Development of minimum requirements for public non-financial reporting, as well as recommendations on procedures for assessing and certifying public non-financial reporting;
- Promotion of the dissemination and use in the practice of organisations of common concepts in the field of public non-financial reporting, including on issues of social responsibility and sustainable development;
- Promotion of the development of training and advanced training in the field of social responsibility, sustainable development, and public non-financial reporting;
- Promotion of the provision of information support in the field of social responsibility, sustainable development, and public non-financial reporting, including to increase the awareness of investors and other stakeholders, as well as to develop international cooperation in this area.

The concept is aimed at improving the system of stimulating Russian organisations to increase the information openness and transparency of the results of the impact of their activities on society and the environment; expanding opportunities for an objective assessment of the performance of Russian organisations in public development; helping to strengthen the reputation of Russian organisations and increase confidence in their business activities; systematisation of the process of introducing public non-financial reporting in the management practice of Russian organisations; raising awareness of a wide range of people about international standards in the field of social responsibility, sustainable development and public non-financial reporting, the importance of public non-financial reporting for Russian organizations and for their external environment.

The public non-financial reporting concept provides for 4 stages of implementation. At the first stage (2017–2018), the development of a regulatory and methodological framework, independent assessment tools, determination of the composition of basic indicators, sets of minimum indicators necessary for information disclosure were envisaged. The participants are mainly large companies with state participation, including the largest fuel and energy companies: PJSC Gazprom, OJSC Gazprom Neft, PJSC LUKOIL, OJSC NK YUKOS, PJSC Tatneft, OJSC TNK BP-Holding’, Concern “Shell”, PJSC “NOVATEK”, PJSC “NK Rosneft”, etc.

Table 1
Formation of non-financial reporting
for fuel and energy companies

Industry classification of companies	Number of companies	Number of reports				
		integrated reports	sustainability reports	social reports	environmental reports	total
Oil and gas industry	21	5	111	9	41	166
Energy industry	42	88	53	45	5	190
Total	172	176	314	326	81	897

Source: National Register and Library of Corporate Non-Financial Reports
("Official website of the Russian Union," n.d.)

Coordination of work on the introduction of sustainable development models and the formation of the IEE is carried out by the Association "The National Network of the Global Compact Participants for Implementing the Principles of Responsible Business" (the National Global Compact Network) ("Official website of UN," n.d.) and the Russian Union of Industrialists and Entrepreneurs ("Official website of the Russian Union," n.d.). In the Russian Union of Industrialists and Entrepreneurs, a single publicly accessible information database on corporate non-financial reports is available for interested parties - the National Register of Non-Financial Reports. To date, 173 companies and 903 reports issued since 2000 are registered in the National Register. Being an information partner of GRI, the Russian Union of Industrialists and Entrepreneurs systematizes and analyzes non-financial reports posted on the National Register of the Russian Union of Industrialists and Entrepreneurs, and (with the consent of the company) sends them to the GRI international database of reports ("Official website of Global Reporting Initiative," n.d.).

Russia is still at the beginning of the formation of the public non-financial reporting, at the moment about 50 companies have joined the UN Global Compact, including Rosneft, Rusal, Severstal, Norilsk Nickel, RusHydro, Sistema, Russian Railways, Lukoil, Sakhalin Energy,

Polymetal, a number of large banking structures. At the same time, there are several dozen companies in Russia - representative offices of international corporations, such as Nestle, Unilever, Samsung, Volkswagen AG, Daimler AG, BMW AG, BASF SE, Bayer AG, KPMG International, Ernst and Young, etc., who are also members of the Global UN treaty. All of these organizations have confirmed their commitment to the principles of the UN Global Compact and committed themselves to adjust their business models, to change business strategy in favor of long-term sustainability, in the interests of a more just, sustainable economic development, territory, society and the planet as a whole.

A number of companies are not formally members of the national network, but participate in the creation of non-financial reporting, for example, Atomenergoproekt JSC, Rosatom State Concern, Rosenergoatom Concern OJSC, Zarubezhneft OJSC, etc. A number of companies form the public non-financial reporting outside the UN Global Compact and reflect other aspects of their activities that are not directly related to sustainable development, for example, they do only environmental reporting on greenhouse gas emissions.

Russia lags far behind other countries in the number and quality of non-financial reports. If in the Russian Federation over the last 10 years, about nine hundred reports have been generated, in the UK, the USA, Japan, and Germany they are handed over annually to 2500-4000 national companies (Chaldayeva, Krasikova, & Fedchin, (2015). In these countries, companies have been committed to corporate social responsibility for several decades. At the same time, statistics show that in the Russian Federation since 2012 there has been an increase in the number of companies-participants of GRI. The leaders in the field of corporate sustainability, responsibility and openness (the Russian Union of Industrialists and Entrepreneurs indices on sustainable development) in 2018. steel: ALROSA, Gazprom, Zarubezhneft, LUKOIL, Metalloinvest, Norilsk Nickel, Rosneft, Rostelecom, Severstal, SIBUR, AFK Sistema, SUEK, Aeroflot, EVRAZ, EuroChem, Inter RAO, MMK, MTS, NOVATEK. OMK. NLMK. Polyus, RUSAL. RUSSIAN RAILWAYS. Rosatom, Russian Networks, RusPiro, Sakhalin Energy, Sberbank, TMK, Transneft, PhosAgro ("Official website of the Russian Union," n.d.).

If today the majority of the public non-financial reporting is voluntary for organisations, and the exception is only annual reports for PJSC, then at subsequent stages of the development, the number of organisations covered by the requirement to publish non-financial reporting will be expanded to include state-owned companies and companies a number of other business entities that meet certain requirements. These are companies with a revenue of 10 billion rubles and more, an average number of employees of more than 2,000 people and a number of other criteria. Most of the enterprises of the fuel and energy complex will fall under the criteria, which means that all of them will be obliged in the near future to implement the public non-financial reporting system.

It prevents the development of the concept of insufficient rates of legislative work. For example, the Federal Law on Public Non-Financial Reporting was planned to be issued in 2017, but it still exists as a draft. The main concerns are related to financial costs, which are expected to be associated with the confirmation of such statements. Experts suggest that the cost of such services may be significant, incomprehensible behind the issue of reporting for subsidiaries and a number of other points.

4. Conclusions

4.1. The need for the development of a non-financial reporting for companies of the fuel and energy complex of the Russian Federation

An analysis of domestic and international experience in using non-financial reporting revealed the following prerequisites for the development of the Russian system of non-financial reporting at fuel and energy companies:

1. An objective comparison of the performance indicators of domestic companies among themselves and with foreign competitors in order to identify the best practices of state regulation and intra-company planning for solving environmental, social, energy and other problems;
2. Formation of equal conditions of competition within the borders of the EURASEC (Eurasian Economic Community) Common Economic Space. For example, the use of economic mechanisms to control greenhouse emissions has already shown its advantage over the licensing system based

on auctions, trading in quotas and penalties for non-compliance with the requirements. The use of harsh coercive measures forces businesses to make large and not always economically viable investments, making them dependent on the possibilities of state or regional support. On the contrary, objective measurable indicators allow the application of soft economic impact measures that put EURASEC enterprises in equal conditions.

3. Creation of additional mechanisms to stimulate energy efficiency and industry modernization. Many non-financial indicators are closely related to the profitability of companies. For example, in the fuel and energy sector, electricity generation is proportional to the amount of greenhouse gas emissions. The decrease in the specific volume of emissions per megawatt of energy produced is an indicator of the growth in operating efficiency. For example, if in the implementation of an international project, products of advanced domestic companies are used, then the use of data on emissions of these particular enterprises will be significantly more profitable than the industry average indicators. The cost of offsetting emissions is proportional to the size of the emissions, and therefore the accuracy of the measurement has a direct result in the form of cost savings. Enterprises receive an additional economic incentive to modernise their industries in the direction of greater environmental friendliness.

4. Improving the quality of the national inventory of anthropogenic factors and other negative consequences for ecology and society. For example, methods for determining greenhouse gas emissions in some cases can give an error of 20-50% (Nakhtin et al., 2013). The identification of such errors is possible on the basis of a comparison of the indicators of various enterprises, the technologies used, industry average values, international experience, and this requires the availability of relevant databases.

5. Considering the "carbon footprint" during the construction of large construction projects in the Russian Federation and other countries will allow better compliance with the new "green building" requirements and will increase the attractiveness of domestic companies for foreign partners. In the face of sanctions, the lack of non-financial reporting from domestic companies can be the basis for competitive pressure.

6. Creating additional incentives for foreign investment in the Russian economy. After major accidents at the Deepwater Horizon oil platform in the Gulf of Mexico and at the Fukushima-1 nuclear power plant, the traditional risk management system was put into question. Investors and other interested parties began to pay more attention to information on sustainable development and to be more critical of the activities of potentially hazardous fuel and energy enterprises. Therefore, for the development of Russian business, which requires the attraction of investors, it is necessary to develop non-financial reporting both in terms of the number of published reports and in terms of their quality.

7. Improving the competitiveness of products of energy companies. The strengthening of environmental requirements on the part of foreign consumers of fuel and energy products, primarily European countries, is forcing domestic businesses to adjust to the conditions of product and service buyers. Already today, many foreign investors require disclosure of greenhouse gas emissions from companies in order to reduce investment risks associated with climate regulation, as well as to ensure environmentally responsible investment. This condition is contained in a number of international requirements, such as the Carbon Information Disclosure Project (n.d.), supported by the majority of the world's largest investors. The concept of the carbon neutrality of events has been developed ("PAS 2060:2010," 2010; "ISO 20121:2012," 2012). There are carbon reporting disclosure requirements for companies listed on the London Stock Exchange. Without such reporting, companies simply cannot make an IPO (initial public offering).

So far, such stringent requirements for fuel and energy companies mainly concern hydrocarbon reporting, but in the future, foreign partners may require a full set of indicators of sustainable development and this should be prepared in advance. Obviously, the safe operation of fuel and energy companies is largely associated with the "human factor", therefore the social aspect of the work of such a company is also of interest.

In a number of countries (France, Great Britain, the Netherlands, Scandinavian countries, South Africa, Canada), there is a statutory obligation to provide reports on economic, social and environmental performance. Accordingly, representatives of these countries will require established forms from all of their business partners.

Non-financial reporting is an additional factor in the investment attractiveness of the Russian economy, the criteria and methods for measuring them already exist, which means the introduction of new forms of reporting will not require large investments.

8. Improving the image of Russia and national companies. The requirement to expand reporting, actively implemented abroad, can be considered as an element of competition. Additional conditions protect national companies from foreign competitors who did not have time to timely generate the necessary reports. Such requirements can serve as an effective means of pressure on suppliers or become the basis for the introduction of additional sanctions at the state level. Russian companies should not only form reporting, but also conduct relevant PR companies, actively promote themselves in various ratings: Interfax-NERA Ecological Energy Ratings, WWF Russia Ecological Rating, the Russian Union of Industrialists and Entrepreneurs Indices for Sustainable Development, Responsibility and Reporting: "Responsibility and Openness" and "The vector of sustainable development".

for subsidiaries and a number of other points.

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