

TECHNICAL AND FINANCIAL FACTORS OF BUSINESS VALUE FROM THE POWER SECTOR

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Summary

The value of the company is influenced by many factors, both financial and non-financial. Identification and diagnosis of these factors allows the formulation and effective implementation of the strategy of improving the company's value. It also allows to manage the value of each in the decision relating to the business environment, its resources and work organization. The value of business affect not only financial cash flow, but also the structure of financial sources. This, in turn, to a large extent is determined by the nature of the industry. Industries differ in capital intensity and structure of the property. The production usually requires a higher commitment to substantive and financial capital than commercial activities or services. In this article companies from the electric power sector were analyzed. This sector is one of the most capital-intensive. The investment period usually lasts for several years, and the production and distribution of electricity requires a lot of capital. Aim of this paper is to evaluate the technical and financial factors affecting the value of the companies form the electric power industry. On the basis of the study it can be concluded that the analyzed companies have a good financial condition. The problem is, however, a high level of depreciation of non-current assets. At the times of the promotion of renewable energy and stringent EU legislation to reduce emissions of greenhouse gases such entities will be obligated to high investment in new ecological machinery and equipment. This creates an additional risk factor, and forces them to seek new sources of funding. Without these processes, their future existence and development seems to be problematic.

Keywords: enterprise value, electricity companies, sources of financing, technological needs in electric power sector.

1 Introduction

Raising contemporary business value is one of the major goals of running business activities. The sources of value creation change along with changing operating conditions of business entities. Therefore, a selection of factors affecting the value of an entity must correspond to changes on the market and methods of their management, since these factors are of decisive impact on competitive advantage of

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an entity. The contemporary economy presents more and more demanding requirements and forces entities to be more and more competitive. According to J. Lowe, if an investor obtains the answer to the following questions: Is the company in good condition? Is greater indebtedness acceptable? Can a company generate constant and strong stream of income? Is there a possibility to raise the level of sales? (Dudycz, 2005, pg. 18), the investor may then specify business value, and hence purposefulness of investing in the company. Business value management thus focuses the attention of managers on the maximization of net cash flows, increases relevance of strategic decisions as well as reduces risk and reinforces the business entity development process.

A company is not only about implementing certain management skills, but also about reacting to the needs of a specific market. The power market is quite a characteristic area. One of the features that differentiate investments in the power sector from other industries is a long lasting and complicated investment process. The power industry is one of the most capital-intensive areas of the economy. The Polish distribution system contains assets which are highly operated and require replacement or modernization. A characteristic feature of the power sector is also most often a longer, as compared to other industry branches, period of return on equity. The period of investment usually lasts for several years and production and distribution of electric energy require large outlays.

The article presents an analysis of companies from the power sector. The main objective is to assess technical and financial factors affecting business value from the power sector. The subject of the paper is the power sector and the object is analysis of basic carriers of business value in a given sector. It presents technical and financial factors of power business value as well as discusses development possibilities of the analyzed entities.

2 Contemporary business value factors

Value multiplication is the main purpose of a contemporary company. The approach of management by value is an approach, in which general aspirations of a company, analytical techniques and management processes are subordinate to the maximization of value by concentration of the decision-making process on major factors determining value (Copeland, Koller & Murrin, 1997, pg. 87) A conscious increase in business value is possible after it has been identified what it is and which factors are decisive for it. There are many approaches towards defining value of a contemporary business entity. From all kinds presented in the literature, one most important definition stands out. Value which is attributed to a company determines the maximum price a prospective new investor is willing to offer for the company, or the price its present owner is willing to accept for it (Szczepankowski, 2007, pg. 45).

The business value is determined under the effect of many financial and non-financial factors. In a nutshell, it can be stated that value of an entity depends directly on generated cash, amount of invested capital and cost of capital (Dudycz, 2005, pg. 23). A. Rappaport, while conducting research on financial factors of the business value, extended their list to seven items, which include: growth in sales, operational profit margin, additional investments in fixed assets, additional investments in current

assets, cash tax rate, cost of capital and value growth period (Rapaport, 1999, pg. 187).

Very important elements in the process of business value creation are also the so-called non-financial value factors. As a result of the multifaceted look at the value maximization process, the so-called Value Creation Index has been established, for the entities operating in new market conditions. According to this index, the value of an organization is affected, next to the financial carriers, also by the following factors: innovations, quality, customers, management, alliances, technologies, brand, employees, environment (Stanoch, 2005, pg. 31). This index allows a broader look at the process of value creation and better management in order to maximize generated cash resources which are decisive for the business value. The most known and significant division of factors of contemporary business value was, however, presented by A. Rappaport. This author divided the factors determining value of an entity into three groups. He included in them the before-mentioned cash flows from operating activities, the rate of the cost of capital and the company's indebtedness level. Later, he conducted a more detailed grouping of the value carriers into operational, investment, financial and general factors.

The operational value carriers are then decisions determining the structure of products, level of prices, promotional activities, advertising, distribution and the level of customer service. They are reflected in three basic factors: sales growth rate, operational profit margin and income tax rate. Investment value carriers are then the decisions concerning stock levels and growth in production capacities, being reflected in two factors - investments in fixed assets and investments in net working capital. On the contrary, financial value carriers are then the cost of capital and capital structure. The general value carrier is then the period of growth or possibilities of value creation, also referred to as competitive advantage period (Rapaport, 1999, pg. 65).

The aforementioned factors form a basis for building a scheme of connections between the decisions made in a company and the value generated for its owners (Nita, 2007, pg. 30).

The value of each contemporary company is affected by many factors. It is difficult to determine, which of them have the most important impact. For this purpose, what should be identified are the areas of business value creation. Then, the particular factors determining value should be thoroughly identified. Right selection of activities creating value is strictly related to the specific character of the sector in which a company operates, and the degree of intensity of competition. Additionally, the process of value creation of an entity should be implemented simultaneously in all areas of its operations, and each of the separated carriers should be taken into account in business valuation.

The subject of the article is the electric energy market, which has its own character. When valuating companies from the power industry, it is required to take into account the fact that electric energy is produced as goods but consumed as service. From among the carriers having effect on the value of entities from the power sector, apart from the before-mentioned internal factors, we can also distinguish a number of external factors, independent on individual business entities. An important factor influencing business value in the power sector is the climate and energy policy

of the European Union. This policy is based on the assumption that an important determinant of climate warming is the emission of CO₂. ("Energia Gigawat" 2011, No. 2).

The climate and energy package puts the Polish economy, in particular the electric energy manufacturers, at a large disadvantage. They have more than 60% of share in the entire emission of CO₂ by the Polish industry ("Ekonomia & Rynek", 2011). The effects of implementation of the package will be thus very severe in economic terms.

The business value in the power sector is affected largely also by legal regulations. Specific importance is given to the tax and balance law. Legal regulations can improve financial standing of companies, but can also affect it destructively. Any changes in national and EU regulations with regard to the operation of the power sector introduce the need for fulfilling a number of laws and obligations. The carried out modifications affect undoubtedly financial costs, and consequently operating results obtained by the entities in the power sector.

The level of prices of energy resources affects not only the business value in the sector, but also interferes in the economic and civilization development of the world. A sudden growth in prices of power carriers (especially fuels generated from crude oil) forced implementation of the programs of rational use of energy and restrictions in power consumption of the economy. These events also showed that these prices were subject to many unpredictable impacts and extra-economic factors. One of them is for instance political situation in the regions of fuel extraction (military conflicts, strikes) or weather anomalies. Extremely important factors of the future development of markets of fuels and energy resources also result from environmental conditions and especially from the adopted international environmental protection agreements.

The expected further changes in the power law of the EU, and in the technologies supporting the development of power industry will probably result in significant changes on the electric energy market. Further deregulation of this market is assumed. The role of customers (final recipients of this energy) will increase. In these conditions, the business value of energy producers will more and more depend on the costs of management, and in particular on their control and adjustment of their level to market prices.

3 Situation in the power sector in Poland

The power sector covers the processes of acquisition of electric energy sources, generation and then delivery to final recipients. The whole sector can be split into two subsectors. One of them is a fuel subsector, and the second (being the subject of this article) is the power subsector. The power engineering includes production, distribution and sales of electric energy. Within these two subsectors, often also smaller ones are distinguished. These are e.g. conventional power or nuclear power.

In the contemporary economy of the world, electric energy plays a very significant role. Its importance in the economic development becomes an unquestionable phenomenon. The most developed countries of the world owe their industry and social progress mainly to electro-intensive systems. On a global scale,

the consumption of energy in 1995 was 30% higher than in 1965. On the other hand, as indicated by forecasts, growth in energy until 2025 will proceed at a galloping pace (Krawiec, 2012, pg. 40–41). It is planned that global demand for electric energy in 2030 will be higher even by 50–60% than presently.³⁹Energy consumption grows rapidly, despite more and more effective use. The development of the world economy and growth in population of the world are thus accompanied by continuous growth in the energy demand. The production of electric energy has a very strong impact on the development of other sectors of the economy and the standard of living of the population. At the present level of economic development, most inhabitants, especially of highly developed states, cannot imagine their life without access to electric energy, which enables using other technological achievements. Electric energy production is dominated by the states that are highly developed economically and largest in terms of population. A leader in respect of production volume are the United States, generating 1/4 of the global electric energy. (see table 1). More than 65% of the electric energy production can be attributed to the following 10 states: the United States, Russia, Japan, China, Germany, Canada, France, Great Britain, India and Ukraine. On the contrary, approx. 64% of the global electric energy production is delivered by power plants heated with conventional sources: hard coal, lignite, petroleum and natural gas. Nuclear power starts to grow in importance now. Its share in the world production of energy is now 17%. For this reason, it seems important that ten states - the largest producers generate nearly 2/3 of the global electric energy.

TABLE. 1. SHARE OF STATES IN THE GLOBAL PRODUCTION OF ELECTRIC ENERGY

No.	Country	Share in %
1	United States	26
2	China	8
3	Japan	7
4	Russia	6
5	Canada	4
6	Germany	4
7	France	4
8	India	3
9	Brazil	2
10	RoW	36

Source: prepared by the author on the basis of the data from the Central Statistical Office (GUS)

In Poland, in the period 2007–2009, the production of electric energy was running at a similar level, reaching the average of approximately 155 400 GWh. However, during these three years, we can notice a successive decrease in electric energy production. (see table 2). The pace of growth in energy consumption was much

³⁹ US Department of Energy

greater from 2010. As compared to almost 98% in 2009, it increased in the subsequent period already by 6 percentage points.

TABLE 2. PRODUCTION OF ELECTRIC ENERGY IN POLAND

No.	Specification	2007	2008	2009	2010	2011
1	Total electric energy generation [GWh]	159 347,8	155 305,4	151 720,2	157 657,6	163 547,9
2	Dynamics	-	97,46%	97,69%	103,91%	103,74%

Source: prepared by the author on the basis of BDL – Local Data Bank of the Central Statistical Office (GUS), http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=393290&p_token=-906408441 (accessed on 24.08.2013).

Carrying out an electrical energy consumption analysis, like in the case of the production in the years 2007–2009, we can see a decrease in energy consumption, on the other hand the consumption has been growing since 2010 (see table 3). In 2011, a maximum level was reached, amounting to almost 148 000 GWh.

TABLE 3. ELECTRICITY CONSUMPTION BY ECONOMIC SECTORS

No.	Specification	Data in GWh				Data in %			
		2008	2009	2010	2011	2008	2009	2010	2011
1	Total:	143 700	136 996	144 453	147 668	100,00%	100,00%	100,00%	100,00%
2	industrial sector	44 734	40 427	42 130	44 838	31,13%	29,51%	29,17%	30,36%
3	power sector	23 993	23 944	26 018	25 659	16,70%	17,48%	18,01%	17,38%
4	transport sector	5 785	4 204	4 648	4 245	4,03%	3,07%	3,22%	2,87%
5	households	27 115	27 534	28 614	28 258	18,87%	20,10%	19,81%	19,14%
6	agriculture	1 628	1 610	1 616	1 595	1,13%	1,18%	1,12%	1,08%
7	other consumption	40 445	39 277	41 427	43 073	28,15%	28,67%	28,68%	29,17%

Source: prepared by the author on the basis of BDL – Local Data Bank of the Central Statistical Office (GUS), http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=393290&p_token=-906408441 (accessed on 24.08.2013).

Industry is the largest user of electric energy in Poland. The share of its consumption over the years 2008–2011 was at an average level of approximately 30%. In 2008, this consumption was the highest, as much as 31% (44 734 GWh) of overall electric energy consumption in Poland. Further, the largest beneficiaries of electric energy are households and industrial sector. Energy consumption in both areas is at the average level of 20% on the scale of the country. The least energy-intensive area remains the transport sector – on average 4% on the scale of the country.

To sum up, electric energy is one of the most "noble" forms of energy and has a very strong impact on the development of civilizations and the economic development

of particular countries. For this reason, the demand for electric energy, its variability, and then satisfaction of this demand strictly are associated with the domestic economy and its further changes (Pasek J., 2007, pp. 10-11). It is obvious that the global financial crisis and economic stagnation resulted in the country's decrease in consumption of electric energy in 2009, as compared to the previous year. Paradoxically, however, the slowdown allowed power companies to relax temporarily and focus on important long-term investments. Many experts note that the Polish electrical power sector needs new investments.

4 Technical and financial factors of power business value

The subject of research in the further part of the article covers technical and financial factors determining power business value.

One of the basic elements of assessment of the technical condition of power companies is installed capacity and available capacity of the devices in operation. In 1995, the capacity of turbine sets that had been operating for over 30 years amounted to 5,411 MW, which was 19.3% of capacity of the National Power System (see table 4). In 2000, this capacity amounted to 8,892 MW (29.9%), in 2005–13,545 MW (44.5%), and in 2010 – 16,938 MW (55.4%).

TABLE 4. STRUCTURE OF TURBINE SETS IN POWER PLANTS AND PROFESSIONAL HEAT AND POWER STATIONS IN THE PERIOD 1995 – 2010 BY AGE.

Year	< 5 years	6 to 10 years	11 to 15 years	16 to 20 years	21 to 25 years	26 to 30 years	> 30 years
1995	4,12	11,41	12,35	20,24	20,84	11,73	19,31
1996	5,78	7,07	14,78	18,33	21,37	12,92	19,76
1997	6,48	4,86	16,57	17,28	20,65	13,63	20,54
1998	7,00	3,21	15,08	15,94	19,81	16,22	22,74
1999	6,00	2,30	15,31	10,08	22,22	20,15	23,94
2000	6,01	3,93	6,78	14,23	17,88	21,30	29,87
2001	4,15	4,84	4,72	16,17	17,20	20,26	32,66
2002	2,93	6,33	3,16	14,68	15,74	19,46	37,70
2003	5,94	6,78	2,30	14,10	10,46	21,76	38,66
2004	5,95	6,21	3,73	10,64	11,49	19,44	42,54
2005	4,66	7,91	4,15	6,81	14,04	17,96	44,47
2006	6,25	7,08	4,84	4,71	15,68	17,15	44,29
2007	4,98	6,98	5,89	3,48	14,33	15,45	48,89
2008	5,17	6,75	7,14	2,55	13,73	10,55	54,12
2009	5,42	8,08	5,75	4,16	10,52	11,58	54,49
2010	4,39	7,16	7,96	4,19	6,81	14,07	55,42

Source: Prepared by the author on the basis of ARE data

Undoubtedly, we can notice a successive growth in capacity of the installed devices. As a confirmation of this phenomena, we can quote the fact that in 2008 the

general capacity installed in power plants in Poland was almost 35 600 MW, whereas in 2011 it was already higher and almost 37 600 MW (see table 5).

TABLE 5. GENERAL INSTALLED AND AVAILABLE CAPACITY IN POWER PLANTS IN POLAND

No.	Specification	2008	2009	2010	2011
1	Installed capacity:	35 596,4	35 762,3	36 058,2	37 595,2
2	Available capacity	35 326,0	35 713,8	36 058,8	37 305,8

Source: prepared by the author on the basis of BDL – Local Data Bank of the Central Statistical Office (GUS), http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=393290&p_token=-906408441 (accessed on 24.08.2013).

Technical obsolescence of the Polish power sector results not only in hazard of growth in energy prices. It also creates a danger of default on the needs of the beneficiaries (e.g. as a result of increased failure rate, etc.). Both situations affect large investment needs in the electric energy subsector. Investments must relate not only to replacement of the outdated generating apparatus, but also development of electric energy production on the basis of renewable sources (Janik W., 2013, p. 53).

Very important in the process of creating contemporary business value, next to the technical factors, are also financial value carriers. Sales volume will always affect business value. This is because, as long as growth can be observed in sales, the value of a business entity will increase. The aforementioned investment outlays, and more specifically outlays for long-term asset components, will alone have negative impact on the value. This fact is forgotten by many managers, in particular in the period of a crisis. Investing is not for the sake of investing alone, but for the increase in revenues. The factors such as prices and costs have significantly influenced the financial result of Polish electric energy producers⁴⁰. In 2009, it was higher by 287.5% as compared to 2008, while in 2010. it was lower by 19.6% as compared to 2009. (see table 6).

In 2010, two factors determined change in the financial result: decrease in average selling prices, which caused reduction in sales profit by 14.5% and growth in costs of electric energy production which was a result of decrease in profit by 7.2%. The growth in sales volume contributed to growth in this result by 2.1%.

TABLE 6. IMPACT OF CHANGE IN SALES VOLUME, UNIT PRICES AND COSTS ON CHANGE IN THE FINANCIAL RESULT IN PROFESSIONAL POWER PLANTS AND PROFESSIONAL AND INDEPENDENT HEAT AND POWER STATIONS IN THE YEARS 2008 - 2010 (%)

No.	Specification	2010	2009	2008
1.	Sales volume (MWh)	141 280	138 410	136 743

⁴⁰The research covered 6 large electric energy producers using lignite and 5 producers using hard coal.

2.	Average selling price (PLN/MWh)	192,2	196,9	160,8
3.	Average unit cost (PLN/MWh)	166,4	164,1	152,2
4.	Result on sales in PLN	3 625 088	4 541 232	1 171 888
5.	Financial result dynamics (%)	80,40	387,50	100,00
6.	Change in result in % %	-19,60	287,50	100,00
7.	Change in result owing to increase in sales	2,10	1,20	-
8.	Change in result owing to increase in prices	-14,50	326,30	-
9.	Change in result owing to increase in costs	-7,20	-140,00	-

Source: Prepared by the author on the basis of statistical data derived taken from Statystyka Elektroenergetyki Polskiej, ARE, Warsaw 2010 and 2011.

Carrying out an analysis of changes in the net value of fixed assets at particular distributors, we can also notice a substantial diversification. It is worth paying attention to the net value of tangible fixed assets in Polska Grupa Energetyczna (Polish Energy Group). The entity having the greatest share in national distribution (40%) since 2008 has been showing very low shares of fixed assets in total assets. It proves high level of consumption of the distribution system of this distributor. The investment costs borne over this period were not sufficiently large as compared to the actual needs.

TABLE 7. SHARE OF TANGIBLE FIXED ASSETS IN TOTAL ASSETS AT DISTRIBUTION SYSTEM OPERATORS IN 2006 – 2010 (%)

No.	Distributors	2010	2009	2008	2007
1.	PGE Dystrybucja	0,27	0,29	0,35	80,08
1.	Tauron Polska Energia	83,66	87,22	86,75	79,89
3.	Enea Operator	1,89	1,96	1,91	2,32
4.	Energa Operator	84,85	89,85	84,45	80,79

Source: prepared by the author on the basis of financial statements of domestic distribution system operators for 2007–2010.

In the analyzed period, the amount of investment outlays was diverse, not only with respect to particular distributors, but also in particular years (see table 8). The largest outlays were incurred in 2007. In the remaining years, they were already significantly lower.

TABLE 8. INVESTMENT OUTLAYS OF DISTRIBUTORS IN 2006 - 2010

No.	Distributors	2010	2009	2008	2007
1.	PGE Dystrybucja	12 079,32	1 516,81	4 834,04	424 324,52
2.	Tauron Polska Energia	342 273,40	380 534,66	734 176,96	789 047,91
3.	Enea Operator	12 581,00	15 355,00	25 537,00	406 105,00
4.	Energa Operator	348 835,84	697 266,07	574 589,06	618 349,06

Source: prepared by the author on the basis of financial statements of domestic distribution system operators for 2007–2010.

The conducted analysis enables formulating a thesis that average level of consumption of tangible fixed assets at electric energy distributors is very high. Investment outlays borne in the analyzed period were disproportionately low as compared to the actual restoration-modernization needs.

5 Economic situation and development possibilities of power companies

Undertaking investment and modernization activities with regard to power infrastructure is determined mainly by its low technical condition. Most of the facilities were built in the 1970s and 1980s, which means that the life of many facilities is a few dozen years and often exceeds the planned life. In particular, it applies to linear infrastructure facilities (transmission system and distribution system) of electric energy. The share of facilities older than their planned life is a significant part of all facilities being in operation. Operation of infrastructural facilities for over their planned life, with simultaneous lack of investment outlays for modernization or restoration, results in a significant deterioration of the technical condition and higher risk of failure (*Financing*, 2011. p. 21).

Woszczyk M. states in the report published by Instytut Obywatelski that it has been estimated that investment outlays of power concerns in Poland for the period of three years 2009 - 2011 amounted together to approximately PLN 14.3 million, which means that on average it was approximately PLN 4.8 million annually (Swora, 2011, pg. 30). In 2009, investment outlays of Polish power concerns amounted to PLN 4.1 million, while in 2010 a growth occurred in the analyzed amount slightly above 9%. Due to the above, the amount of investment outlays reached the level of over PLN 4.5 million. In the next period, the amount of incurred investment outlays also increased and in 2011 it was already PLN 5.6 million (see table 9).

TABLE 9. AMOUNT OF INCURRED INVESTMENT OUTLAYS IN THE ELECTRIC ENERGY SECTOR IN 2010 – 2008

No.	Specification	2009	2010	2011
1.	Investment outlays in PLN million	4,148	4,529	5,604
2.	Dynamics (%) previous year = 100%	100	109,19	123,74

Source: prepared by the author on the basis of M. Swora, Report: W kierunku nowoczesnej polityki energetycznej. Energia elektryczna, Instytut Obywatelski, 2011, p. 30

The entities operating on the market, in order to achieve their goals, form numerous and various associations, creating corporate groups. However, every company must have capital necessary for running business operations. One way of financing growth is internal funding. In this financing model, a company raises funds necessary to complete goals from their own resources, e.g. by means of retaining orkred profit in the form of established provisions or depreciation deductions. Funds raised through depreciation deductions can be used for new or restoration

investments. Depreciation, due its nature, reflects circulation of value in a company, meeting three functions; depreciation, cost and financial function.

In the analyzed power groups in the analyzed years 2008 – 2011, the average level of internal funds allocated for the development of these entities was successively higher in value each year. It can be confirmed by the fact that in 2008 slightly more than PLN 2 500 million were allocated on average for development of the analyzed power groups, while in 2011 the value of these funds increased almost 2.7 times and amounted to almost PLN 6 800 million (see table 10). In the analyzed power groups there is a large diversity of the value of internal resources meant for development, which is confirmed by the high value of variability coefficient amounting to 0.889. The largest number of resources was managed by PGE group in 2011 (PLN 16 163 million).

TABLE 10. FUNDS MEANT FOR DEVELOPMENT IN POWER GROUPS IN 2008 - 2011 (IN PLN MILLION)

No.	Company name	2008	2009	2010	2011
1.	PGE	8 145,52	11 058 524,00	14 139 077,00	16 163 379,00
2.	TAURON	4 192 343,00	3 554 062,00	2 901 715,00	1 909 092,00
3.	ENEA	4 306 442,00	4 646 731,00	5 111 616,00	5 769 592,00
4.	ENERGA	1 515 692,57	1 921 092,09	2 514 028,12	3 182 107,55
Average		2 505 655,77	5 295 102,27	6 166 609,03	6 756 042,64

Source: prepared by the author on the basis of consolidated statements of power companies listed on WSE for 2008-2011.

The important factors influencing the amount of internal resources meant for development in the analyzed power groups covered depreciation and retained profit. Pursuant to the regulations of the Act on Accounting, the value of purchased fixed assets is not immediately settled in operating costs, decreasing the basis for taxation and profit. However, it must be settled gradually according to the depreciation rates in the subsequent years. It gives rise to a difference between net profit and the actual cash flow. In the companies with depreciation deductions a part of funds for financing subsequent investment outlays remain physically there. The largest number of depreciation deductions in the analyzed period was made by PGE group in 2011. (see table 11), which is reflected in a prior analysis of the amount of the possessed resources for development of these entities.

TABLE 11. DEPRECIATION IN THE ANALYZED POWER GROUPS IN 2008 – 2011 (IN PLN MILLION)

No.	Company name	2008	2009	2010	2011
1.	PGE	2 584,61	2 638 676,00	2 655 210,00	2 710 556,00
2.	TAURONPE	1 268 722,00	1 321 028,00	1 358 778,00	1 411 097,00
3.	ENEA	631 364,00	661 345,00	652 672,00	711 591,00
4.	ENERGA	479 430,83	554 503,00	591 418,00	656 785,36
Average		595 525,36	1 293 888,00	1 314 519,50	1 372 507,34

Source: prepared by the author on the basis of consolidated statements of power companies listed on WSE for 2008-2011.

Retained profit is one of basic sources of financing companies and it is this part of net profit, which has not been paid to the owners in the form of a dividend. The assessment of its level is very close to the previous analyses. Also the PGE group managed the greatest amount of retained profit, and (see table 12).

TABLE 12. RETAINED PROFIT IN THE ANALYZED POWER GROUPS IN 2008–2011. (IN PLN MILLION)

No.	Company name	2008	2009	2010	2011
1.	PGE	5 560,91	8 419 848,00	11 483 867,00	13 452 823,00
2.	TAURONPE	2 923 621,00	2 233 034,00	1 542 937,00	497 995,00
3.	ENEA	3 675 078,00	3 985 386,00	4 458 944,00	5 058 001,00
4.	ENERGA	1 036 261,74	1 366 589,09	1 922 610,12	2 525 322,19
Average		1 910 130,41	4 001 214,27	4 852 089,53	5 383 535,30

Source: prepared by the author on the basis of consolidated statements of power companies listed on WSE for 2008-2011.

The reporting data lead to a conclusion that between 2008–2011. the investment expenses of the analyzed power groups were quite diversified – variability coefficient of 0.890. In this period, the average value of investment outlays for all analyzed entities was almost PLN 2 500 million. The largest outlays were incurred in 2011, and the lowest in 2008 (see table 13). The largest number of investment outlays among all the power groups can be attributed to PGE in 2010 (PLN 7 841 million).

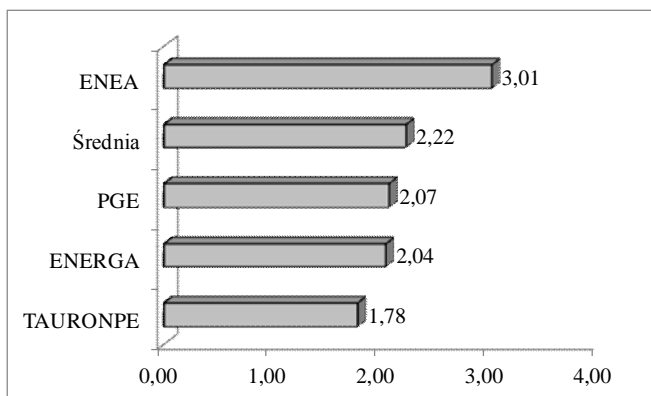
TABLE 13. INVESTMENT OUTLAYS IN THE ANALYZED POWER GROUPS IN THE YEARS 2008–2011. (IN PLN MILLION)

No.	Company name	2008	2009	2010	2011
1.	PGE	4 643,64	4 643 816,00	7 841 491,00	6 958 524,00
2.	TAURONPE	1 994 036,00	1 476 327,00	1 590 058,00	2 473 259,00
3.	ENEA	923 579,00	2 681 187,00	1 332 355,00	3 189 033,00
4.	ENERGA	742 962,46	857 402,15	1 078 155,91	2 077 546,43
Average		916 305,28	2 414 683,04	2 960 514,98	3 674 590,61

Source: prepared by the author on the basis of consolidated statements of power companies listed on WSE for 2008-2011.

The average value of the ratio of internal funds allocated for the development to investment outlays in the years 2008–2011. was 2.22 (see Figure 2.) and, in particular periods, the reported amount was similar to the average value.

FIGURE 2. AVERAGE RATIO OF FUNDS ALLOCATED FOR DEVELOPMENT TO INVESTMENT OUTLAYS IN THE YEARS 2008–2011.



Średnia- Average

Source: prepared by the author on the basis of consolidated statements of power companies listed on WSE for 2008-2011.

High level of own resources intended for development, among the analyzed power groups, is present in the ENEA group. These funds exceed the investment outlays over 3 times (see Figure 2). The remaining power groups are also in a good situation. It is confirmed by the fact that internal resources in those entities exceed the actual investment outlays from 1.7 to 3 times. The conducted analysis of development possibilities of power groups allows stating that the internal funds from depreciation deductions and retained profit were enough for the analyzed entities to cover the investment needs in the analyzed period. In these power groups, where internal resources were at a low level, debt capitals were the main source of financial support for development activities.

6 Conclusion

Each contemporary business value is affected by many factors. These are both financial and non-financial factors. It is difficult to determine, which of them have the most important impact. For this purpose, what should be identified are the areas of value creation in a company. Right selection of activities creating value is strictly related to the specific character of the sector in which a company operates, and the degree of intensity of competition. One of the main factors determining the value in the power sector includes changes in determining demand and supply, prices of goods, macroeconomic situation of the country's economy as well as any regulations with regard to the climate policy and the uncertainty related to these regulations. It is also affected by seasonality related to demand for electric energy as well as prices of electrical fuels and actions of the competition. On the basis of the conducted research, it can be concluded that the analyzed companies have a good financial standing. The problem is, however, a high level of depreciation of fixed assets. In the times of promotion of renewable energy and rigorous EU regulations aimed to reduce greenhouse gas emissions, the entities being part of the power sector will be obliged

to make large investments in new ecological machines and devices. It will create an additional risk factor and force seeking new sources of financing. Financial value carriers are also very important in the process of contemporary business value creation, next to the technical factors, i.e. machines and modern technologies of manufacturing. The electrical energy prices are affected by demand and supply, and more precisely demand for energy consumption. Prices variability influences the level of cash flows, and thereby company's profitability and as a result, its value.

Despite investment activities and gathering own resources for development activities, the majority of the analyzed power groups did not withhold dividend payment. As it is correctly pointed out by J. Rączka, within the next 2–3 years, the power concerns will be very cautiously approaching investment activities, and hence development activities. Some of power concerns have already announced freezing projects concerning construction of new units. It is unlikely that they will change their attitude in the next few years to come, unless the market conditions change substantially. Other power groups are probably equally carefully revising their investment plans (Rączka, J., 2013, <http://cse.ibnigr.pl/gdzie-dzis-zarabia-sie-w-elektroenergetyce/>). The program "Polish Investments" aiming at ensuring preservation of the present dynamics in investments in infrastructure projects, may support the development of the Polish power sector, with long time horizon, using attractive financing as well as supplementation of the present offer of financial institutions on the Polish market. The program is aimed to support profitable projects, among others in power (distribution and manufacturing) and gas (transmission network, extraction and storage) infrastructure. To sum up, it should be noted that it is impossible to finance the power industry development without support from foreign institutions and financial markets. They all need to participate as a necessary element in the safe strategy of raising funds for new generating capacities.

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