

**Kyiv National University of Trade and Economics  
Department of Economics and Business Finance**

# **FINAL QUALIFYING PAPER**

on the topic:

## **Financial analysis of investment project**

**based on the data of JSC «KPMG Audit», Kyiv**

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## INTRODUCTION

**Relevance of the research.** The identification and selection of good investment projects is a key element in developing a sustainable successful future. The decision to move forward with good or bad projects, more than impacting the economic profile of the firm in the short term, will tend to have a lasting impact in the long term profitability. The analysis of a project has three quite different sequential dimensions. Firstly, we have a phase of gathering and assessing the data related to the project. In special, forecasted data (revenues, costs, etc.) need to be carefully analyzed as it will be cement of whatever criteria that will be used to evaluate the project. Just using the right methodology and tools to evaluate a given project will not help much to reach a good investment decision if the analysis is based in poor data. The robustness of the data employed is crucial in the evaluation process. Secondly we have the evaluation stage, in which we will assess the merits of the project to contribute for the value of the firm. Finally, we will have a third stage, of risk analysis, that will check the robustness of the evaluation results.

Investment analysis is a completely independent branch of analysis with its methods and tools, techniques. Some of its elements are borrowed from financial analysis, some from the analysis of economic activity of enterprises and organizations, but in general investment analysis is an independent section of investment theory.

In recent years, the number of research and publications by leading foreign scholars and investments practitioners, such as: G. Alexander, G. Birman, L. Gitman, M. Jonk, D. Nortkott, U. Sharp, M. Yahaev, and others has increased.

**The main purpose** of the final qualifying paper is to investigate methodological aspects of investment project financial analysis and to apply them into solar energy investment project. Based on the purpose of the article, the following **tasks** are set:

- to form theoretical bases of investment project financial analysis;

- to analyze key elements of financial performance and financial position of investigated company;
- to identify future perspectives for investing into the company;
- to give advices for investments into company and increase of future performance of the company.

**Object of the research** is the process of investment project financial analysis.

**Subject of the research** is theoretical, methodological and practical aspects of investment project financial analysis.

Analytical and technical part of the research is made based on materials of JSC “KPMG Audit”. Investment project is engaged in solar production activity. Government developed a plan to attract investments into green energy sector in 2014. Since then, green energy market started growing rapidly. Green energy market is strict government regulated sector where business model is the same for all participators. All solar stations produce energy and can sell all its electricity to guarantee buyer, called “Energo runok”. Guarantee buyer pays to producers according to previously agreed green tariff. Green tariff is fixed for certain period of time and stated for each company by National energy and utilities regulatory commission. In terms of competition, each company doesn’t not compete with each other, because revenues are predetermined based on green tariff and over all capacity of solar station.

**Methods of the research.** Real investments have their own characteristics that distinguish them from financial investments and influence the choice of investment analysis methods. First, the income from real investment, the investor usually receives in a year or even longer, and from financial investment income can be obtained in one day. Second, the size of real investment is always significant. Third, real investment is often related to the strategic goals of the enterprise or organization. Fourth, real investment always affects many aspects of the activity of the investment object and its environment. All these aspects are taken into account in the analysis of real investment, which is often called project. An investment project is a multi-page document that reflects the idea of



the project, means and ways of its implementation and the results of its implementation in the form of estimated indicators of economic efficiency and level of risk. Therefore, the investment analysis of real investment contains two main areas: analysis of economic efficiency of investment and assessment of investment risks.

The research of chosen topic was carried out with the hold of such methods of cognition: quantitative method, method of financial and economic analysis, method of net present value determination, method of determining the internal rate of return of the project, method of forecasting, method of risk assessment.

**Informational base** is legislative acts, information from State statistics service of Ukraine and National bank of Ukraine, periodic economical literature, publications of rating agencies, financial statements of investment project.

**Practical meaning.** The results of the conducted research and the suggested ways of optimization can be taken into account and used by the enterprise in the further decision-making concerning investment management of an enterprise. Practical meaning of the final qualifying paper is concluded in further investments in the project and practical implementation of investment decision.

**Scientific novelty.** Green energy market is a very young sector of economy as well as new way of investments for future participators. The scientific novelty of the paper is that as a result of the research, the improvement of the risk management and investment management systems of the company's valuation in the modern conditions of the Ukrainian economy has been further developed.

**Approbation.** The results of the study were presented at JSC “KPMG audit” for their further application and published in the collection of master's articles "Economics and Finance of Enterprise" in an article on the topic: “Risk assessment in the investment project implementation process”.

**The structure of the final qualifying paper** is determined by its purpose and tasks and includes introduction, three chapters, conclusions and suggestions, references and appendices. Total amount of pages in the paper is 45 pages.

## **CHAPTER 1**

### **THEORETICAL BASES OF INVESTMENT PROJECT FINANCIAL ANALYSIS**

Financial analysis is used to evaluate economic trends, set financial policy, build long-term plans for business activity, and identify projects or companies for investment. This is done through the synthesis of financial numbers and data. A financial analyst will thoroughly examine a company's financial statements - the income statement, balance sheet, and cash flow statement. Financial analysis can be conducted in both corporate finance and investment finance settings.

In corporate finance, the analysis is conducted internally by the accounting department and shared with management in order to improve business decision making. This type of internal analysis may include ratios such as net present value (NPV) and internal rate of return (IRR) to find projects worth executing.

One of the most common ways to analyze financial data is to calculate ratios from the data in the financial statements to compare against those of other companies or against the company's own historical performance.

Economic analysis of investments is based on two types of assessment of investment processes: accounting assessment and dynamic.

Accounting or static assessment in the economic analysis of investments is based on the current assessment of the parameters of the investment project, cash flows and material resources without taking into account the time factor. These methods are simple and clear, but are only auxiliary. The main methods are dynamic methods that take into account the discounting of cash flows over time and, accordingly, more accurately reflect real economic processes.

The financial analysis deals primarily with earning considerations of a project [1]. It is concerned with whether the project will be able to secure the funds it will need and be able to repay and whether the project can be financially viable or profitable. Financial

analysis is concerning with commercial or private profitability from the firm's economic viewpoint. Therefore, financial analysis is useful to investor who is interested in financing and for entrepreneur who owns the project. In financial analysis, we are going to calculate some measures to determine profitability and repayment capability of the projects. These measures are based on the estimated costs and benefits of the projects and so-called financial cost-benefit analysis. On the other hand, testing of the reliability of the basic figures, the quantities and prices of inputs and outputs are very important in financial analysis. The project worth can be estimated by two groups of criteria:

- Non-discounted measures of the project worth (do not take in to consideration the time value of money and economic life of the project).
- Discounted cash flow measures (take in to consideration time value of money and economic life of the project).

Before illustrating mentioned measures (criteria), it will be necessary to explain some basic concepts such as, time value of money, inflation and project evaluation, cost of capital, economic life of the project, cash flow and cash flow table.

Times value of money is a certain amount of money today worth is the same to a person as it received at some point in the future. It can be argued that, inflation alone would make a certain amount of money to be received in the future worth less. While that is true, but it is not to be the focus here. Aside from inflation, it is evidence that a certain amount of money today is worth than the same amount would be received in future [2]. For instance, we put one dollar in a savings account, and at the end of one year, we would have an amount equal to the one dollar and return it had earned.

Let us say that, we put one dollar at 6 percent. It will be worth 1,06 dollars at the end of the first year, 1,124 dollars at the end of the second year and 1,191 dollars at the end of the third year (by compounding). The reverse of compounding is discounting. For example, the present value of 1.06 dollars to be received one year later from now is 1,00 dollar, when the interest rate is 6 percent.

We can formulate this explanation, assuming the beginning worth as  $C_0$  and



interest rate as r:

- The worth, at the end of the first year  $C_1 = C_0 + C_{0r} = C_0(1 + r)$
- The worth end of the second year  $C_2 = C_1 + C_{1r} = C_1(1 + r)$
- The worth end of the third year  $C_3 = C_2 + C_{2r} = C_2(1 + r)$

If we rewrite based on  $C_0$ , and take  $q = 1 + f$ , we obtain,  $C_3 = C_2 * q^3$ . Putting it in general form (for n years), we have:  $C_0 = C_0 * q^n$ , this is the compounding formula.

The reverse of previous formula is  $C_0 = C_n * (\frac{1}{q^n})$  is called as the discounting formula.

Then we call  $\frac{1}{q^n}$  as the discounting factor. When the cost and benefit streams would be equal, another discounting factors  $(q^{n-1}) / (r * q^n)$  could be used to discount (n) number of equal values. These discounting factors for different periods and interest rates were calculated and published [2].

Since an investment project is a proposal to be realized in a proposed future, the problem of what the prices will be in the future must be considered or at least this issue must be discussed. Indeed, the rate of inflation does not only affect the future cash flows but also affect the cost of capital i.e. discounting rate. If the inflation rate is zero, there is nothing to do with the prices, and the interest rate, which reflects the individual time preference of money (for the financial analysis). Let us assume that 20 % will be used. However, if there is inflation let us say 10 %, in this circumstance, adjustment of the prices could be considered and nominal interest rate must be used. The equation, to indicate the relationship between real and nominal interest rates in the climate of inflation could be written as below,  $(1 + \text{real interest rate}) (1 + \text{inflation rate}) = (1 + \text{nominal interest rate})$ . For instance, the time value of money, i.e. real interest rate is 20% and inflation rate is 10 %, the nominal interest rate will be 32 %. Two main approaches, however, could be discussed here; an approach to adjust cash flows by specific inflation rates with application of nominal interest rate or to use current prices and apply a real rate of discount [3]. In other words, with the inflation in investment analyses two ways could be used:



1. Based on the assumption that, all commodity prices are increased at the almost same rates, using current prices and current real interest rate.
2. The second way is that, based on the assumption, which the commodity prices are affected by different rate of inflation, using the adjusted prices with different rates and nominal interest rate.

In using discounted measures, we need an appropriate discount rate to discount cash flows and use as a yardstick comparing with the calculated measures. We can put this rate a direct or an indirect way. If funds used in investment were borrowed, the interest rate on borrowed money would directly be used as the cost of capital. When non-borrowed funds are used, cost of the capital may be best measured in an indirect way using opportunity cost [3]. The opportunity cost of a resource to a firm can be defined, as the amount that the resource would have earned in its most profitable alternative use. Devoting funds to a certain project, investor is giving up other alternatives. Even if investor has only one alternative; at least he can put his money in a savings account. In this case, the interest rate of savings account would be the opportunity cost.

The economic life of a project is also an important thing in using discounted cash flow analysis. Such an investment project in agriculture, e.g. a processing factory, a convenient starting point in determining the economic life is the technical life of the major investment item. Especially in an industrial project, the economic life of a major investment item is shorter than its technical life because of the obsolescence. On the other hand, economic life can be called as the term that the project no longer pays to operate it, making such repair and replacements are necessary [4]. In practice, generally 20-30 years are accepted as economic life, because in application of discounted cash flow measures, any returns beyond about 20-30 years, probably will make no difference in evaluating and ranking of alternative projects concerning with the given discount rate.

Net present value (NPV) is the most straightforward discounted cash flow measure of a project. This is simply the total present value of the project net cash flows

computed by discounting of the net cash flows over its life with a given appropriate rate of interest.

$$NPV = \sum_{t=0}^n N_t / q^t, \quad (1.1)$$

where r is the discount rate;

n – economic life;

N – the net cash flows.

Cost-Benefit ratio – it may be the most convenient way to call, Benefit-Cost ratio for this measure to emphasize that the benefit is divided by costs. Benefit-Cost analysis involves comparing discounted cash outflows (costs) of a project with the discounted cash inflows (benefits) of the project in a ratio. Example of computation of Net present value is illustrated below in table 1.1.

*Table 1.1*

### Computation of Net Present Value

Year	Net-cash flow (1)	Discount factor (2)	Discounted value (1x)
0	(1,000)	1.00	(1,000)
1	(2,550)	0.80	(2,040)
2	750	0.64	480
3	800	0.51	410
4	1,000	0.41	410
5-20	1,100	0.11	1,753
Total	-	-	13

To illustrate calculation of the B/C ratio of our project the costs and benefits in table 1.1 were transferred in table 1.3. For calculation, we must first discount each stream in order to find its present value. This discounting procedure was presented in table 1.2. Dividing the present value of the gross benefits by present value of the total costs we found the Benefit-Cost Ratio as 1,0001 ((10 154) / (10 142) =1,001).

A third common way of using discounted cash flows for measuring the worth of a project is the internal rate of return (IRR). It is a discount rate which makes the net present value of a project equal to zero. This discount rate is given various names; the

“solution rate”, “the yield” or “the marginal efficiency of investment” [5].

Unfortunately, there is no formula for directly finding the internal rate of return. That is why we do not have an efficient system which will give us the right answer on the first try.

*Table 1.2*

### Computation of Cost-Benefit Ratio

Year	Cost (investment-operating) (1)	Gross Benefits (2)	Discount Rate (3)	Discounted	
				Outflows (1x3)	Inflows (2x3)
0	1,000	-	1.00	1,000	-
1	2,550	-	0.80	2,040	-
2	2,200	2,950	0.64	1,408	1,888
3	2,200	3,000	0.51	1,126	1,536
4	2,200	3,200	0.41	902	1,312
5-20	2,300	3,400	0.11	3,665	5,418
Total				10,142	10,154

We are forced to resort trial and error. It is one way calculating net present value, using progressively higher interest rates until the net present value becomes negative. Then we interpolate to arrive at the IRR. This process was applied to our example figures in table 1.3.

*Table 1.3*

### Computation of IRR

Year	Net Cash Flows (1)	Discount Factor (26%) (2)	Present value
0	(1,000)	1.00	(1,000)
1	(2,550)	0.79	(2,025)
2	750	0.63	473
3	800	0.50	400
4	1,000	0.40	397
5-20	1,100	0.10	1,638
Total			(117)



Net present value of our project was 12 600 dollars with a discount rate of 25 percent. Using a discount rate of 26 percent, present value became negative (- 117 100). The IRR is thus between 25 and 26. To determine the precise rate of return, we interpolate between 25 and 26 percent, as follows.

The internal rate of return of this project is  $25 \text{ percent} + (12,6 / 129,7) \times 1 = 25,097 \text{ percent}$ .

In economic analysis of any project, we are interested in the merits of the project to the whole society or national economy regardless of who is in the society realizing it. Therefore, economic analysis called as social cost-benefit analysis. While the main criterion is commercial profitability in financial analysis, economic analysis is rather concerned social profitability and the economic merits of the project such as, the removal of poverty, the promotion of growth and the reduction of inequalities in income distribution etc. The easiest way to understand social cost-benefit analysis is to examine the differences between economic and financial analysis. Main differences between them can be summarized as follows [4-6].

- In economic analysis, certain prices must be changed to reflect better true social and economic values, while in financial analysis current market prices are used to estimate cost and benefits. Especially in developing countries, market prices do not reflect the real value of the commodities in national economy, because of some reasons such as, intervention to market, underemployment of resources etc. Therefore in economic analysis `shadow` or `accounting` prices must be used.
- Some cost and profit items could not be evaluated as real costs and profits from the economic viewpoint. For instance, in financial analysis market prices including taxes and subsidies are always used. In economic analysis, taxes and subsidies are treated as transfer payment. A subsidy as a cost and taxes as a benefit to a society must be included to costs and profits of project in economic analysis. On the other hand, external effects should be taken in to consideration in economic analysis, such as, environment pollution, education and demonstration effects etc. However, it is not easy

to put out some of these externalities in quantitative terms.

- In economic analysis, social rate of discount must be used instead of discount rate using in financial analysis. Social rate of discount which reflects social time preferences and social opportunity cost, is really different from the discount rate reflecting private time preference and interest rates.

In economic analysis all discounted measures of project worth can be used after adjusting project costs and benefits according to the differences mentioned above. But especially in developing countries, it is not easy to find appropriate data for calculation of shadow prices, social discount rate and externalities.

Therefore some rather rough measures can be used to indicate, the socio-economic merits of the projects, such as, value added, creation of new employment facilities, substitution of import, promotion of export etc.

A project is based on some technical, financial and economic information. We are making some predictions and estimations about yields, prices etc. These estimations and predictions may involve some risk and uncertainty. In the cases possible outcomes can be characterized by numerical probabilities is termed risk, and the cases probability distribution of the various outcomes is not known is termed uncertainty [7-8]. For a food processing project, for instance, variation in the production of main raw material can be shown as a sample of risk, probability of the technological changes in the economic life of the project is a sample of uncertain circumstances.

The techniques for dealing with risk and uncertainty in financial and economic analysis are relatively sophisticated. On the other hand, in practice, some simple approaches are used which provide some figures showing how a project responds to changing conditions. The way of taking expected probable changes in to consideration is named as sensitivity analysis. For instance:

- Adding a risk premium to the discount rate in calculating present value;
- Raising some cost items, reducing some items of benefits that appear to be uncertain by a certain percentage;

- Using a project life less than the formal life, could be considered the ways of sensitivity analysis.

Every investment project is related to different types of risks. Measurement and assessment of risk is one of significant parts in decision making and project management as well.

Risk is defined as the probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions [9-10].

Risk assessment is a process to determine the probability of losses by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a threat or harm to property, people, livelihoods and the environment on which they depend [11]. ISO 31000 defines risk assessment as a process made up of three processes: risk identification, risk analysis, and risk evaluation. Risk identification is the process that is used to find, recognize, and describe the risks that could affect the achievement of objectives. Risk analysis is the process that is used to understand the nature, sources, and causes of the risks that have been identified and to estimate the level of risk. It is also used to study impacts and consequences and to examine the controls that currently exist. Risk evaluation is the process that is used to compare risk analysis results with risk criteria in order to determine whether or not a specified level of risk is acceptable or tolerable.

Quantitative risk assessment. Risk mapping for natural hazard risk can be carried out at a number of scales and for different purposes. Table 1 gives a summary. In the following sections four methods of risk mapping will be discussed: Quantitative risk assessment (QRA), Event-Tree Analysis (ETA), Risk matrix approach (RMA) and Indicator-based approach (IBA).

If the various components of the risk equation can be spatially quantified for a given set of hazard scenarios and elements-at-risk, the risk can be analysed using the



following equation:

$$Risk = \sum_{All\ hazards} \left( \int_{Pr=0}^{Pr=1} P_{(T|HS)} * \left( \sum_{All\ EaR} \left( P_{(S|HS)} * \left( A_{(ER|HS)} * V_{(ER|HS)} \right) \right) \right) \right) \quad (1.2)$$

In which:

$P_{(T|HS)}$  = the temporal probability of a certain hazard scenario (HS). A hazard scenario is a hazard event of a certain type (e.g. flooding) with a certain magnitude and frequency;

$P_{(S|HS)}$  = the spatial probability that a particular location is affected given a certain hazard scenario;

$A_{(ER|HS)}$  = the quantification of the amount of exposed elements-at-risk, given a certain hazard scenario (e.g. number of people, number of buildings, monetary values, hectares of land) and

$V_{(ER|HS)}$  = the vulnerability of elements at risk given the hazard intensity under the specific hazard scenario (as a value between 0 and 1).

Event-tree approaches. A number of hazard may occur in chains: one hazard causes the next. These are also called domino effects, or concatenated hazards. These are the most problematic types to analyse in a multi-hazard risk assessment. The best approach for analysing such hazard chains is to use so-called event-trees. An event tree is a system which is applied to analyse all the combinations (and the associated probability of occurrence) of the parameters that affect the system under analysis. All the analysed events are linked to each other by means of nodes (see illustration 1 in Appendixes) all possible states of the system are considered at each node and each state (branch of the event tree) is characterized by a defined value of probability of occurrence.

## CHAPTER 2

### INVESTIGATION OF JSC “KPMG AUDIT” INVESTMENT ACTIVITY

#### 2.1 Analysis of volume and structure dynamics of assets, liabilities and financial results of invested company

Understanding the context in which the project is implemented is the first step of any project appraisal. This is particularly important for energy projects, as they are usually part of a network that extends at national or international level, thus making the project’s sustainability and performance subject to a large number of external factors. The baseline context elements for energy projects are shown in the following table 2.1 below.

*Table 2.1*

#### **Baseline elements and factors affecting the investment project**

Socio-economic-political trend	<ul style="list-style-type: none"> <li>• Ukrainian economic is very unstable and since 1991 year represented by various crisis, revolutions and other shocks which negatively effect the economic situation in Ukraine. National GDP has not direct positive trend, at 1991 year national GDP was 497 bln. USD, since 1991 as at 2019 - 347 bln. USD. National GDP for each member of Ukraine repeats the trend and decreased since 1991 year, from 3,624 USD to 3,110 USD as at 2019 year. The last 5 years, since revolution in 2014, Ukraine demonstrates a positive changes and increases GDP from year to year;</li> <li>• In July 2019 the total population of Ukraine was estimated to be 41,762,138 excluding the Autonomous Republic of Crimea and Sevastopol, which were annexed by Russia in 2014. (If these two territories are included in the demographics of Ukraine, the population rises by approximately 2.25 million, to 44 million). During the 2014 Ukrainian Crisis, the Ukrainian Government also lost control of portions of the Donbass region, including major cities such as Luhansk, Donetsk and Horlivka. If the populations of these cities are subtracted from Ukraine's current demographics, the total population of Ukraine falls below 40 million. In 2019 an electronic census estimated that Ukraine's population, minus the lost Crimean and Donbass populations, to be 37.3 million. Ukraine's population (excluding Crimea) in 2017 was estimated at 37,289,000. The country's population has been declining since the 1990s because of a high emigration rate, coupled with high death rates and low birth rates. The population has been shrinking by an average of over 300,000 annually since 1993. In 2007, the country's rate of population decline was the fourth highest in the world;</li> <li>• Life expectancy is falling, and Ukraine suffers a high mortality rate from environmental pollution, poor diets, widespread smoking, extensive alcoholism and deteriorating medical care;</li> </ul>
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*Continuation of table 2.1*

	<ul style="list-style-type: none"> <li>• During the years 2008 to 2010, more than 1.5 million children were born in Ukraine, compared to fewer than 1.2 million during 1999–2001. In 2008 Ukraine posted record-breaking birth rates since its 1991 independence. Infant mortality rates have also dropped from 10.4 deaths to 8.3 per 1,000 children under one year of age. This is lower than in 153 countries of the world;</li> <li>• In 2019 a government run electronic census using multiple sources, including mobile phone and pension data, estimated that Ukraine's population, minus the lost Crimean and Donbass populations, to be 37.3 million. About 20 million were of active working age;</li> <li>• In 2019 energy intensity for Ukraine was 0.232 kwh/\$ of GDP. Energy intensity of Ukraine fell gradually from 0.475 kwh/\$ of GDP in 1991; Fuel prices rises from year to year. Main reason for this is change of national currency strength and devaluation of UAH since 1991 year.</li> </ul>
Geographical factors	<ul style="list-style-type: none"> <li>• Ukraine`s climate is continental, with freezing winters and warm summers, which become progressively warmer as you move towards the south. The southern area, which overlooks the Black Sea, has a slightly milder weather in winter, but we cannot speak of Mediterranean climate (the winter is cold anyway), except on the southern coast of the Crimean Peninsula;</li> <li>• Ukraine produces 16,487 thousand tonnes of natural gas 14,087 thousand tonnes of Coal and peat, 2,341 thousand tonnes of crude oil, 22,145 thousand tonnes of nuclear resources and 3.726 tonnes of biofuels and waste. Ukraine imports all Oil products in amount of 10,365 thousand tonnes and the third part of its natural gas demand in amount of 8,459 thousand tonnes.</li> </ul>
Political, institutional and regulatory factors	<ul style="list-style-type: none"> <li>• Renewable energy market in Ukraine is highly regulated by government. All suppliers of renewable energy have obligatory requirement to sell all produced energy to one central buyer called "Energorunok". Government establishes the fixed tariff and other strict rules for purchasing, selling and production of renewable energy. Such</li> </ul>

Based on the table above, we can conclude that investment project operates in complicated conditions. Overall economic situation is bad, renewable energy sector is strictly regulated by government, but Ukraine makes a lot of steps to increase investment attractiveness to renewable energy sector. As for now, investment project is on final stage of building with its own assets, liabilities, profits and losses. Company operates on its own. Company is going to build solar station with 4,7MgWatt of electricity power. In order to identify possible negative trends and threats, we performed analyze of assets and liabilities of investment project, represented in table 2.2.

Financial statements about financial position and financial statements about



financial results are represented in appendices.

Table 2.2

**Assets dynamics of JSC “KPMG AUDIT” invested company, 2017-2019  
years, thousands UAH**

Assets	2017 y.	2018 y.	2019 y.	Absolute deviation 2018- 2017 y.	Absolute deviation 2019- 2018 y.	Growth rate 2018- 2017 y.	Growth rate 2019- 2018 y.
1	2	3	4	5	6	7	8
<b>I. Non-Current assets</b>							
Intangible assets	-	-	2	-	2	0	1
Building in progress	163	63422	6603	63259	-56819	389,05	-0,9
Property, plant and equipment	-	-	61137	-	61137	0	1
<b>Total</b>	163	63422	67741	63259	4320	389,05	0,07
<b>II. Current assets</b>							
Inventories	-	73	85	73	12	1	1,16
Trade accounts receivables	6	1911	1839	1905	-72	317,43	-0,04
Accounts receivables with government	12	5870	1266	5858	-4603	488,13	-0,78
Other receivables	-	-	19	-	19	0	1
Cash and cash equivalents	79	4589	7261	4510	2672	56,87	0,58
Advances made	11	15	11	4	-3	0,33	-0,23
Other current assets	200	18478	19	18278	-18459	91,39	-1
<b>Total</b>	308	30934	10500	30626	-20434	99,31	-0,66
<b>Balance</b>	471	94356	78242	93885	-16114	199,33	-0,17

According to information represented in table above, we can conclude that our investment project is building now. Company purchases and install new solar panels for solar energy production. Since 2017 year, building in progress has increased significantly, from 163 thousands UAH to 63,422 thousands UAH and in 2019 year, company has put it into operation with total amount of property, plant and equipment in amount 61,137 thousand UAH at the end of 2019 year. Investigated company is going to build a solar station with 4,7 MWatt of power to produce solar energy in 2020 year.

Building actions are almost done and company expects to have 80-90% of solar station load.

The second step is to analyze sources of funds which were used for building to solar station. This purpose can be achieved by analyze of equity and liabilities investigated company. Financial statements are represented in appendices, analyze of dynamic of equity and liabilities is represented in table 2.3 below.

*Table 2.3*

**Equity and liabilities dynamics of JSC “KPMG Audit” invested company,  
2017-2019 years, thousands UAH**

Equity and liabilities	2017 y.	2018 y.	2019 y.	Absolute deviation 2018-2017 y.	Absolute deviation 2019-2018 y.	Growth rate 2018-2017y.	Growth rate 2019-2018y.
1	2	3	4	5	6	7	8
<b>I. Equity</b>							
Statutory capital	555	20000	20000	19445	-	35,04	0,00
Retained earnings (losses)	-29	334	-8555	363	-8889	-12,50	-26,65
Unpaid capital	-55		-	55	-	-1,00	0,00
<b>Total</b>	471	20334	11445	19863	-8889	42,17	-0,44
<b>III. Current liabilities</b>							
Short-term bank loans		56543	66258	56543	9715	1,00	0,17
Current trade payables for:							
Goods and services	-	279	211	279	-68	1,00	-0,24
Government payables	-	75	3	75	-71	1,00	-0,95
Income tax payables	-	73	-	73	-73	1,00	-1,00
Insurance payables	-	1	4	1	2	1,00	-0,44
Liabilities with employees	-	5	14	5	9	1,00	1,78
Other current liabilities	-	17119	307	17119	-16812	1,00	-0,98
<b>Total</b>	-	74022	66797	74022	-7225	1,00	-0,10
<b>Balance</b>	471	94356	78242	93885	-16114	199,33	-0,17

Based on information presented above, we can conclude that initial investments were at the level of 20,000 thousands UAH. Also, in 2018 year, company attracted short-term bank loan in amount of 56,543 thousands UAH and increased its amount in 2019 with total of 66,258 thousands UAH. All attracted third party funds and

investments were used for purchasing and building solar station as the main source of future income.

In order to identify occurred profits or losses, we performed analyses of financial statement of financial results for 2017-2019 period, which are represented in table 2.4 below.

*Table 2.4*

**Profit and losses dynamics of JSC “KPMG Audit” invested company for 2017-2019 years, thousands UAH**

Captions	2017 y.	2018 y.	2019 y.	Absolute deviation 2018-2017 y.	Absolute deviation 2019-2018 y.	Growth rate 2018-2017 y.	Growth rate 2019-2018 y.
1	2	3	4	5	6	7	8
Net Revenue	0	0	6645	0	6645	0,00	1,00
Other operating income	0	21	2700	21	2679	1,00	126,36
Other income	0	0	33	0	33	0,00	1,00
<b>Total income</b>	0	21	9378	21	9356	1,00	441,34
Cost of sales	0	0	-2150	0	-2150	0,00	1,00
Other operating expenses	-6	-89	-39199	-83	-39110	14,90	439,11
Other expenses	0	0	-3585	0	-3585	0,00	1,00
<b>Total expenses</b>	-6	-89	-44933	-83	-44844	14,90	503,49
Financial result before tax	-6	-68	-35556	-62	-35488	11,12	522,90
Income tax expenses	0	0	0	0	-	0,00	1,00
<b>Net profit</b>	-6	-68	-35556	-62	-35488	11,12	522,90

According to information represented above, we can conclude that starting from end of 2019 company produces electricity from part of its solar panels. Net revenue generated from part of solar panels in amount 6,645 thousand UAH. Operating expenses estimated to be the same during the work of solar station. Solar station is almost autonomous and don't need day to day involve of large number of employees.

Solar station was put into operation in December 2019, thus amount of revenue



cant represent the full capacity performance. Based on information. Represented above, we can also conclude that the most significant part of building process took place in 2019 year. We can see a significant increase in operating costs, which are mainly represented by building expenses.

Overall financial position of the company changes rapidly. Since 2018 we can see significant increase in “Building in progress” caption, which is mainly represented by purchases of solar panels and other equipment for future buildings. “Building in progress” increased to 63 422 thousand UAH. During 2019 year, almost all purchased PPE were put into operation. Due to beginning of solar panels instalment process and beginning of electricity production, we can see significant increase in “Other operating expenses” up to 39 199 thousand UAH. Based on the nature of solar production and business processes, operating costs of solar station will remain on the same position without further significant growth. Solar station was put into operation in December 2019 and streams of revenue for 2019 year represents only 1 months of working activity which is not the most profitable during the year due to cold weather and bad solar insolation. The most profitable months for every solar station is June, July and August.

## **2.2. Evaluation of financial activity effectiveness of invested company**

Investment project operates as separate legal entity with its own assets and liabilities, streams of revenue and risks which inherent to the project. Taking into account that structure of equity and liabilities represented by different sources of financial funds, investment project is subject to liquidity risks and risks of financial dependence, strengths and ongoing concerns.

In order to find weaknesses of the company and ways of development, we performed analyze of liquidity and solvency of the enterprise in table 2.5.

Table 2.5

**Dynamics of solvency and liquidity of JSC “KPMG audit” investment project in 2017-2019 years**

<b>Ratios</b>	<b>2017 y.</b>	<b>2018 y.</b>	<b>2019 y.</b>	<b>Absolute deviation 2018-2017 y.</b>	<b>Absolute deviation 2019-2018 y.</b>
Amount of liquid assets	308	30,934	10,500	30,626	-20,434
Amount of fast liquid assets	97	12,369	10,385	12,272	-1,984
Amount of ready to pay funds	79	4,589	7,261	4,510	2,672
Security ratio of					
Liquid assets	0.655	0.328	0.134	-0.327	-0.194
Fast liquid assets	0.207	0.131	0.133	-0.075	0.002
Ready to pay funds	0.168	0.049	0.093	-0.120	0.044
Total coverage ratio	1.000	0.418	0.157	-0.582	-0.261
Intermediate coverage ratio	1.000	0.167	0.155	-0.833	-0.012
Absolute liquidity ratio	1.000	0.062	0.109	-0.938	0.047
Current assets diversion ration into					
Inventories	0.000	0.002	0.008	0.002	0.006
Accounts receivables	0.058	0.252	0.298	0.193	0.046
Share of own operating capital in inventories coverage	0.000	-594.3	-665.4	-594.3	-71.1
Manoeuvrability factor	0.655	-2.119	-4.919	-2.774	-2.800

Based on table 2.5, represented above, we can conclude that company has coverage ratio lower than normative indicate. Normative indicator for coverage of liquid assets should be not lower than 1 to maintain a stable operation process and avoid possible risks of payment overdue, but as we can see, investment project has 0,41 and 0,157 ratios in 2018 and 2019 year. Such situation is due to high amount of short-term loan received from bank. Company, besides already invested funds, attracted a credit line from bank in order to increase number of solar panel and maximize the profit for owners. Intermediate coverage ratio is expected to be within 0.6 points to maintain a stable operating activity, but company also breaches its normative indicator due to the same reason – high amount of short-term loan from bank.

Due to fact, that high amount of short-term bank`s liabilities can affect our

analysis and mislead our assumption, we performed further analysis of financial stability of investment project, represented in table 2.6 below.

*Table 2.6*

**Dynamic of financial stability ratios of JSC “KPMG Audit” invested company in 2017-2019 years**

<b>Ratios</b>	<b>2017 y.</b>	<b>2018 y.</b>	<b>2019 y.</b>	<b>Absolute deviation 2018-2017 y.</b>	<b>Absolute deviation 2019-2018 y.</b>
Financial autonomy ratio	1,000	0,215	0,146	-0,785	-0,069
Financial debt ratio	0,000	0,785	0,854	0,785	0,069
Financial dependency ratio	0,000	0,275	0,171	0,275	-0,103
Debt coverage ratio	0,000	3,640	5,837	3,640	2,196

Based on the information in the table above, we can conclude that starting from the 2018 year, company failed to comply with normative ratio of financial autonomy which is expected to be 0,7-0,9. It means that more than a half of assets were obtained from borrowed resources.

Company expects to finish building activity till the end of 2019 and put all solar panels into operation. Based on information from legal acts and possible income from sales we performed expected income from sales of electricity with redesigned financial statement of financial results, presented in table 2.7.

Our assumption are made based on resolution of National Energy and Utilities Regulatory Commission of Ukraine dated 01.08.2020 №1497 about establishment of "green" tariffs for electricity and surcharges to "green" tariffs for compliance with the level of use of Ukrainian-made equipment for business entities. Also we took into account average number of sunny hours per year which is equal to 3060 hours per year. Other income and costs remain the same. Based on this information we can assume that investment project can be profitable and generate 10,625 thousand UAH of net profit.

Ability to generate profit is the first step of evaluating effectiveness of investment



project. We assume that the level of operating costs remains the same because solar station is almost fully autonomous and does not need day to day involving of large numbers of employees. Also, green tariff is the subject for strict regulation from government and in future years level of green tariff can decrease or increase depends on government judgments as follows level of risk increases.

*Table 2.7*

**Projected income from operating activity of JSC “KPMG Audit” invested project in 2020 year**

Indicators	2019 y.	2020 y.
1	2	3
Net Revenue	6,645	55,158
Other operating income	2,700	2,700
Other income	33	33
<b>Total income</b>	<b>9,378</b>	<b>57,891</b>
Cost of sales	-2,150	-2,150
Other operating expenses	-39,199	-39,199
Other expenses	-3,585	-3,585
<b>Total expenses</b>	<b>-44,933</b>	<b>-44,933</b>
Financial result before tax	-35,556	12,957
Income tax expenses	-	2,332
Net profit	-35,556	10,625

In order to ensure that company has an ability to cover all its liabilities in times, we performed analysis of assets and liabilities from the perspective of their liquidity degree, which are represented in table 2.8.

Based on information from liquidity analysis, we can conclude that company has enough funds to cover the most urgent liabilities in form of payables to employee, payables to government. Company can cover its urgent liabilities by cash and cash equivalents. Short term liabilities remains uncovered, due to high level of short-term loans obtained from Banks. Loan contract has specific conditions, which obliges the company to pass annual review made by bank. Based on review, Bank can prolongate the loan for further period or request the loan repayment. Due to such ability from

Bank`s side, our company accounts all amount of loans as short-term liability. Based on historic data and management expectations, request for early repayment of the debt from Bank`s side is highly unlikely. Invested company can overall cover its liabilities.

Table 2.8

**Balance sheet liquidity analysis of JSC “KPMG audit” invested company in  
2019, thousands UAH**

Assets	At the beginning of the year	At the end of the year	Liability	At the beginning of the year	At the end of the year	Surplus (+), shortage (-) at the beginning of the year	Surplus (+), shortage (-) at the end of the year
A 1. The most liquid assets	4589	7261	L 1. The most urgent obligations	433	232	4156	7029
A 2. Quick-selling assets	7795	3136	L 2. Short-term liabilities	73663	66565	-65868	-63430
A 3. Slow-selling assets	18550	103	L 3. Long-term liabilities	0	0	18550	103
A 4. Hard-to-sell assets	63422	67741	L 4. Permanent liabilities	0	0	63422	67741
Total	94356	78242	Total	74022	66797	20334	11445

Surplus is 20 334 thousand UAH at the beginning of 2019 and 14 445 thousand UAH at the end of 2019 year. Surplus is acceptable for company and no additional liquidity management is necessary.

Based on information represented in the capture №2.3, we can conclude that company has overall stable financial position, acceptable level of liquidity assets which covers urgent liabilities and overall can cover all liabilities on a balance. Projected financial results for 2020 year, which were built based on overall capacity of the solar

station and green tariff stated for the solar station, shows us financial attractiveness of further investments and realisation of investment project. Project net profit for 2020 year is 10 625 thousand UAH. Net profit margin at the level of 19% indicates a good performance of the company. Security ratios of liquid assets is 0,134 at the end of 2019, ratio of fast liquid assets is 0,133 at the end of 2019. Ratios of liquidity remains on the normal level. Business model of the company requires significant amount of PPE, which have low indicators of liquidity. Available funds from operating activity are used for repayment of principal and interest of the loan. Thus, respective ratios 0,134 and 0,133 are acceptable for the company.

### 2.3. Assessment of JSC “KPMG Audit” investment effectiveness

Final investments of JSC “KPMG Audit” into investment project were 20,000 thousand UAH. Also separate company attracted addition financial funds to increase wealth for the owners and build more solar panels. To evaluate project’s ability to generate profit, understand its effectiveness and key ratios for assessment of investment effectiveness, we performed analyse of profit ratios for the company starting from 2017 to 2020 year, represented in table below.

*Table 2.9*

#### **Projected profitability of JSC “KPMG Audit” invested company in 2019-2020 years, %**

<b>Ratios</b>	<b>2019 y.</b>	<b>2020 y.</b>
Operating profitability	-535	23
Net profitability	-535	19
Assets profitability	-45	14
Profitability of non-current assets	-52	16
Profitability of current assets	-339	101
Profitability of shareholder’s equity	-311	53
Economic profitability	-41	21



We performed analysis of different profit ratios to identify company`s historic trends and ability of the company to generate profit for its owners. Based on information from table above, we can conclude that starting from 2020 year, company can generate profit. Since 2017 to 2019 company had a building stage and couldn`t generate enough profit even for covering its own needs. The key ratios are the net profitability, profitability of shareholder`s equity and profitability of non-current assets.

The net profitability ratio, also referred to as the net profit margin is a way to measure the financial performance or profitability of a business in relation to the costs associated with the production and distribution of products along with other expenses. The net profit is expected to be at the level for 19%. We searched for financial market information to identify average cost of capital and found that average rate for loans is 11,9% based in 2019 year. This means, owners can extra earning from taken risk of running company and investment funds. Extra earning could be obtained from new funds attracted from bank. This effect is called financial leverage, when shareholder`s profit can be increase by attracting new borrowed funds. To evaluate effect from financial leverage, we performed additional calculations, represented in table 2.10.

*Table 2.10*

**Effect from financial leverage of JSC “KPMG audit” invested company for 2019-2020 years, %**

<b>Indicators</b>	<b>2019 y.</b>	<b>2020 y.</b>	<b>Absolute deviation 2020-2019 y.</b>
Tax rate	18	18	0
Tax corrector	82	82	0
Gross assets profitability	-37	19	56
Average interest rate	5.84	5.84	0
Borrowed capital, th. UAH	61,401	66,258	4,857
Own funds, th. UAH	15,889	11,445	-4,444
Coefficient of financial leverage	3.86	5.79	1.93
Differential of financial leverage	-43	13	56
Effect from financial leverage	-136	63	199

Based on our calculations in table above, we can consider that effect from financial leverage in 2019 was negative and caused additional loss for the company at the level of -136%. At 2020 when company putted into operation its solar panel and started to generate significant streams of revenue, additional attracted funds which were used in building of solar station caused additional profit for shareholder`s equity. Financial leverage in 2020 at the level of 63%.

Based on the level of green tariff and existing expenses payback period for initial investments in amount of 20,000 thousand UAH is 2 years. Such pay back period is very short and investment project is applicable for further operation.

In order to determine the impact from net revenue, financial leverage and assets turnover ration on ROA and ROE, we used the Du Pont model with relation of indicators considered above. Their relation and impact is represented in the table below.

*Table 2.11*

**Du Pont model of JSC “KPMG audit” in 2019-2020 years,%**

<b>Indicators</b>	<b>2019 y.</b>	<b>2020 y.</b>
ROS	-5,35	0,19
K(assets turnover)	0,12	0,74
ROA	-0,64	0,14
Leverage ratio	1,36	0,63
ROE	-0,87	0,09

Based on information obtained from Du Pont mode, we conclude that the most significant impact on ROA for 2019 is negative result from sales. Return of sales is lower than 0 due to loss activity in 2019, but we can see in 2020 year, company increased its return on sales and as follows increase in ROA. The most significant impact on ROA during 2020 year, has assets turnover ratio. As well as the main source of income is solar panels, 74% of impact from assets is acceptable level for such type of business. ROE is negative in 2019 but in 2020 year, company became profitable and as follows ROE was accounted at the level of 9% based on Du Pont model.

Considering the whole information stated in chapter 2.3 we can see that the most

significant impact on financial performance of the company had PPE. Such impact is in line with business model and current type of business. Due to increase in revenue during 2020 year, we can see increase of financial leverage from 3,86 to 5,79 at the end of 2020. Profitability indicators became positive and remains at the normal level for such type of the business, namely: Assets profitability – 14%, economic profitability - 21%, net profitability - 19%.



### **CHAPTER 3**

## **JUSTIFICATION INVESTMENTS OF JSC “KPMG AUDIT” INTO SOLAR ENERGY PROJECT**

Both demand and supply of energy in a given market need to be assessed and forecasted for any energy project. This is particularly important for projects involving the production of electricity: due to the limited technological possibilities of storing electricity, a balance between demand and production should always be ensured in order to avoid service disruption. Some indications on how energy demand and supply can be forecasted for the purpose of the financial and economic analyses are provided below.

Energy products (natural gas, electricity, heat and biofuels) can be demanded by final consumers, i.e. households, commercial activities and industries or public bodies, and intermediate consumers that transform an energy product into a different one (natural gas can be combusted to produce heat or electricity). When forecasting energy demand of both categories of energy projects, different factors need to be taken into account and duly analysed. The most important ones are:

- Demographic dynamics: the total energy demand is directly related to the size of population;
- Economic trend (e.g. gross domestic product, GDP, growth and per capita GDP): a fast-growing economy generally demands a higher quantity of energy than a flat economy; in parallel, higher standards of living are associated with a higher demand for energy;
- Weather and climate conditions: they largely affect the demand for heating and cooling;
- Tariff system: it could affect the level of consumption, but also the timing, if discounted prices are provided during off-peak hours;
- Particular energy efficiency developments in energy transportation/transmission and/or energy consumption (i.e. through targeted

investments): they can also notably affect total gross energy demand.

The most important input data to be considered for forecasting energy demand is:

- annual total and average consumption of energy products, e.g. in TWatt hours/year (for electricity) or billions cubic meters/year (for gas), by type of consumers. The following categories of consumers are generally considered: household/commercial final consumers, industrial final consumers, and energy transformation sector;
- the peak demand, generally expressed in GWatt for electricity and millions cubic meters /day for gas;
- variability of seasonal and daily levels of consumption;
- annual export demand.

Considering factors which affect demand for power (electricity), we have mentioned above, in chapter 2, information about demographic dynamics, and economic trends. Weather and climate conditions were partly incorporate in our calculations of electricity sales and possible amount of revenue in chapter 2. Climate and weather conditions positively affect the energy demand, especially in summer and winter times. Demand for electricity in such seasons increase due to high level of heating and cooling systems usage. Ukraine has a cold winters when people need additional heat and warm for their comfort life, and in summer times - which are hot in Ukraine, people need more cold to avoid extremely hot weather.

Ukrainian tariff system is developed in such way to decrease demand in summer/spring times by turning off the heating. Thus Ukraine has seasonality which negatively affects energy demand.

Ukrainian consumption of electricity consists of different types of consumer such as people, industry, transport, building, etc. Since 2014 year, due to military actions in Ukraine and alienation part of its lands, consumption of electricity has significantly decreased. We performed analyze of electricity demand based on 3 past years before putting solar panels into operation. Also three past years were stable without any significant crisis or revolution, which can be a reasonable basis for projections and

expectations for 2020. Consumption of electricity represented in table 3.1 below.

*Table 3.1*

**Electricity consumption by types of consumers in Ukraine in 2017-2021 years**

Types of consumers	2017 y.	2018 y.	2019 y.	8m 2020 y.	12m 2020 y.	2021 y.
Industry	50,952	52,023	51,155	32,518	48,777	48,092
Agricultural consumers	3,642	3,868	3,710	2,489	3,733	3,767
Transport	7,044	6,955	6,603	3,680	5,520	5,102
Building	892	964	967	602	903	908
Communal and household consumers	15,016	15,506	15,066	9,201	13,802	13,435
Other non-industry consumers	6,361	6,880	7,482	4,707	7,060	7,325
People	35,020	35,947	35,236	24,103	36,154	36,549
Total, net	118,927	122,144	120,219	77,299	115,949	115,178
Total, gross	149,726	153,214	150,237	95,266	142,899	143,842

Consumption of electricity varies from years to year. Such situation is due to several factors such as growth of GDP and level of enterprises activity, world wide digitalization and growth number of electrical appliances, increase electricity usage efficiency. Based on historic information, we projected 2020 and 2021 year of electricity consumption. Based on our calculations, we can conclude that over all usage of electricity has decreased in 2020 and in 2021 we can expect a growth of usage. Decrease in demand can become a significant problem in future for classic types of electricity production facilities such as Nuclear power plans or thermal power plant, because lack of demand cant lead to unnecessary supply and not revenue streams for enterprises. But Solar stations are belongs to green energy sector and is preferential among other types of enterprises. Thus, we believe that decrease of demand in 2020 won't lead to problems electricity sales of our investment project. Also world wide trends for increase a green energy and earth safety positively affect our expectations.

We performed review of structure of consumption in order to achieve a possible areas for development and growth, represented in illustration (figure) 3.1 below.



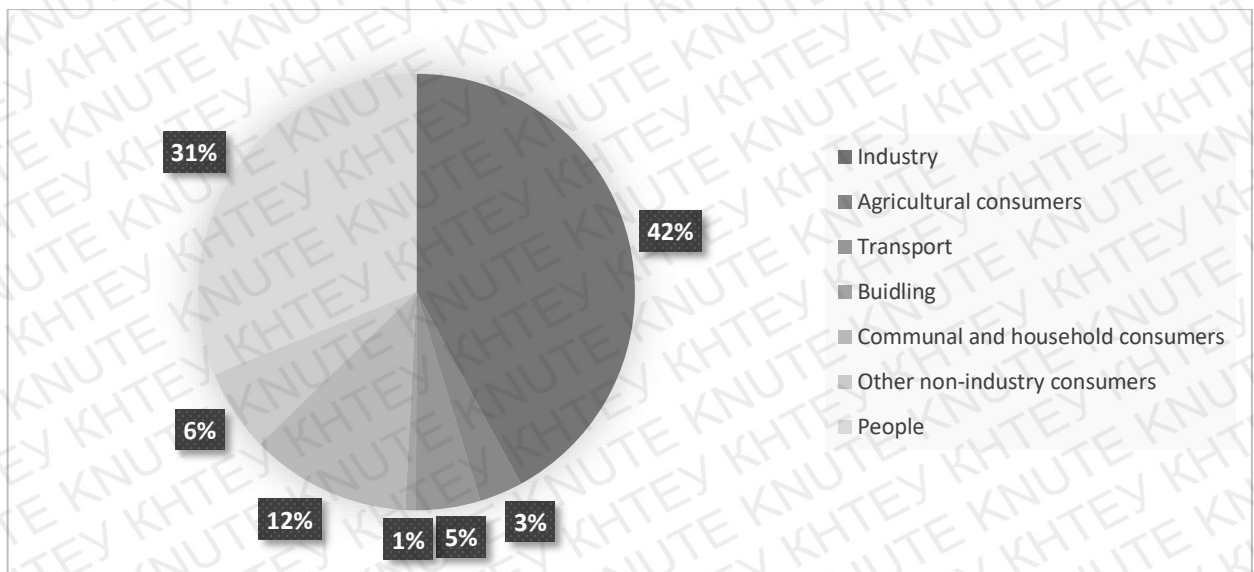


Fig. 3.1. Structure of consumption by their types, %

Based on illustration above, we can conclude that 73% of all consumption consists from industry and people usage. There is a significant area for development represented by transport usage. New electro cars can become a new source of usage increase and become a new significant client for whole energy sector of Ukraine.

For energy production, transport, transmission and distribution projects, the project promoter should provide projections related to the level of energy produced and/or transported/transmitted/distributed by the project under assessment. The market shares of key energy producers, wholesalers and retailers should also be analyzed and projections of supply of alternative energy products provided. A variation in the supply of alternative energy sources could actually significantly affect the project performance and the energy mix to be considered in the future operation of investment project.

The main factors affecting the energy supply level associated with the project are:

- national and international socio-economic and political factors influencing the fuel price dynamics;
- political decisions about the discontinuation of certain types of energy sources and fuels (e.g. nuclear power);

- system of incentives on certain types of energy sources and fuels (e.g. subsidies on renewable sources);
- environmental requirements imposing additional costs to energy production;
- structure, territorial size, degree of integration and performance quality of the energy system (both production facilities and the transportation and transmission/distribution networks);
- market structure, particularly related to the number of competitors and the degree of market openness and integration into other markets.

The most significant factor from mentioned above is strict regulating of energy supply from the government. Government can grant a specific permission for each company to sell its electricity and only after that permission company can carry out their activities. Our investment project has already obtained a permission with fixed tariff for each portion of electricity developed in amount of 3.83 UAH/kilowatt per hour.

As for now, government policy is to increase share of green energy in total energy supply balance with encouragement foreign investments to green energy sector of Ukraine. We performed analyze of electricity supply in Ukraine in order to determine future growth of the sector, represented in table 3.2, below.

*Table 3.2*

**Dynamics of electricity supply in Ukraine for 2017-2021 years**

<b>Electricity production</b>	<b>2017 y.</b>	<b>2018 y.</b>	<b>2019 y.</b>	<b>8m 2020 y.</b>	<b>12m 2020 y.</b>	<b>2021 y.</b>
Thermal power plants	55,842	58,808	55,785	31,215	46,823	44,342
Hydroelectric power plants	10,567	12,008	7,869	5,020	7,530	6,898
Nuclear power plants	85,576	84,398	83,003	51,135	76,703	73,988
Alternative Energy Sources	1,896	2,633	5,542	7,765	11,648	21,724
Block stations	1,533	1,504	1,769	1,255	1,882	2,020
Import	-	-	2,699	1,817	2,726	2,753
Total	155,415	159,351	156,666	98,207	147,310	151,725
Export	4,032	5,211	5,825	2,804	4,206	4,391
Balance with CIS countries	-1,656	-925	-603	-137	96	129

Based on information above, we can conclude that expected supply of electricity power slightly decreased at the end of 2020 year. Based on historic information of volatility of electricity supply, we expect increase in supply in 2021 year. The most important part for our investment project is alternative energy sources which develop electricity for final consumers. Further investigation of alternative energy sources sector represented in table 3.3 below.

*Table 3.3*

**Dynamic of alternate energy sources electricity supply in Ukraine for 2017-2021 years**

<b>Green energy sector</b>	<b>2017 y.</b>	<b>2018 y.</b>	<b>2019 y.</b>	<b>8m 2020 y.</b>	<b>12m 2020 y.</b>	<b>2021 y.</b>
Net energetic balance	5,689	6,136	6,429	2,941	4,411	7,883
Balance result	Over production	Over production	Over production	Over production	Over production	Over production
AES production	1,896	2,633	5,542	7,765	11,648	21,724
Y-to-Y change	0	736	2,910	2,223	6,106	10,076
Y-to-Y growth	0%	39%	111%	40%	110%	87%

Taking a closer look to alternate energy sector, we can conclude that Ukrainian sector of green energy shows a year to year growth. Along with government strategy for increasing green energy sector, we expect to have 21,724 millions kilowatt at the end of 2021. We can see that for 8 months of 2020 supply of electricity is already overcome factual results of 2019 year. Green energy sector increases rapidly which can give us a reasonable ground to state that investment project can sell all possible developed electricity for further years.

After evaluation of possible supply and demand, we need to assess NPV of investment project to identify that investment project can be profitable. NPV calculations are presented in table 3.4 below.

Assumptions which were used to determine net present value (NPV) were: we assumed that solar station will work with 5% of normal loss due to different weather



conditions, technical capacity and other non-controllable factors.

*Table 3.4*

**Computation of project's NPV of JSC "KPMG Audit" invested project for 20 years**

Items	Years					
	0	1	2	3	4	5-20
Net cash flow	0					
1. Investments	-20,000					
2. Operating costs		-44,933	-44,933	-44,933	-44,933	-718,933
3. Gross benefits		52,400	52,400	52,400	52,400	838,399
4. Net benefits	-20,000	7,467	7,467	7,467	7,467	119,466
5. Discounting factor	1	0.894	0.799	0.714	0.638	0.017
6. NPV	-20,000	6,673	5,963	5,329	4,762	33,396

Interest rate which was used for discounting rate determination was assessed at the level of 11,9% which is equal to average interest rates for long-term loans from banks granted to legal entities. Average life of solar panel differs from 5-30 years, but actual life of solar panels will be not less than 20 years, thus expected length of investment project's life was assessed as 20 years.

Total amount of NPV is 36,123 thousand UAH for 20 years. Initial assessment of the project is passed. Investment project can cover investment expenses and give additional profit for the owners. Discounted payback period is equal to 3 years and 3 months. The next steps of our evaluation of investment project is Cost-Benefit analyze which is presented in table 3.5 below.

Based on information from table above, we can conclude that Cost-Benefit ratio is 1,25 which means investment project average benefit for every 1 UAH of expenses is 1,25 UAH with net benefit at the level of 25%. Such ratio is very important in assessment of projects effectiveness, because it includes initial investments and further operating expenses in total which can give a fair view for investee future benefits. Simple profit ratio will include only current expenses from legal entities point of view and will be higher than Cost-Benefit ratio.

Table 3.5

**Cost-Benefit assessment of JSC “KPMG Audit” investment project for 20 years**

Years	Costs	Gross benefit	Discount rate	Discounted Outflows	Discounted Inflows
0	-20,000	52,400	1	-20,000	52,400
1	-44,933	52,400	0,894	-40,155	46,827
2	-44,933	52,400	0,799	-35,885	41,848
3	-44,933	52,400	0,714	-32,068	37,397
4	-44,933	52,400	0,638	-28,658	33,420
5-20	-718,933	838,399	0,017	-200,976	234,372
Total	-918,666	1,100,399		-357,742	446,265

The next step of our assessment of investment project, we need to calculate internal rate of return (IRR) to identify should we accept investment project or not. When calculating IRR, expected cash flows for a project or investment are given and the NPV equals zero. Put another way, the initial cash investment for the beginning period will be equal to the present value of the future cash flows of that investment. (Cost paid = present value of future cash flows, and hence, the net present value = 0). Once the internal rate of return is determined, it is typically compared to a company’s hurdle rate or cost of capital. If the IRR is greater than or equal to the cost of capital, the company would accept the project as a good investment. If the IRR is lower than the hurdle rate, then it would be rejected. Calculation of IRR represented in table 3.6 below.

Table 3.6

**Calculation of Internal rate of Return of JSC “KPMG Audit” investment project for 20 years**

Items	Years						Total
	0	1	2	3	4	5-20	
Net cash flow	0	1	2	3	4	5-20	
1. Net benefits	-20,000	7,467	7,467	7,467	7,467	119,466	129,333
2. NPV (35%)	-20,000	5,531	4,097	3,035	2,248	6,370	1,280
3. NPV (40%)	-20,000	5,333	3,810	2,721	1,944	4,837	-1,356

To determine IRR for investment project, at first variant, we tool 35% of interest

rate for discounting coefficient which gave 1,280 thousand UAH of total NPV (positive). For the second variant, we took 40% of interest rate which gave (1,356) thousand UAH of total NPV (negative). Based on information represented above, we can conclude that Internal Rate of Return for evaluating project is between 35% and 40%. Such IRR is higher than average cost of capital which was equal to 11.9%, and as follows, we can accept such project for further realization.

As for now, solar company has attracted borrowed funds from Bank in total amount of 66,258 thousand UAH. Taking into account existing level of net profit which can be used for repayment of loan, future expenses will be lower and lower. Also taking into account that tariffs which are used for revenue expectations are regulated by the government and investment project is subject for risk related to external factors, especially external market regulation from government. To understand level of risk from possible decrease of tariffs, we developed a 3 cases scenario. Calculations for each scenario represented below in tables 3.7-3.9.

*Table 3.7*

**Decrease of green tariff (First basic scenario) of JSC “KPMG Audit” invested project**

Items	Years					
	0	1	2	3	4	5-20
Net cash flow	0	1	2	3	4	5-20
1. Investments	-20,000	-	-	-	-	-
2. Operating costs	-	-44,933	-44,575	-44,216	-43,858	-669,102
3. Gross benefits	-	52,400	52,400	52,400	52,400	838,399
4. Net benefits	-20,000	7,467	7,825	8,184	8,542	169,298
5. Discounting factor	1	0.894	0.799	0.714	0.638	0.017
6. NPV	-20,000	6,673	6,249	5,841	5,448	45,825

First scenario takes into accounting year to year repayment of loan with the same level of activity (95%) and the same tariff (3,85 UAH kilowatt/hour). The second one takes into accounting decrease of tariff for 10% with the same level of activity (95%). The third one include 20% drop of tariff with the same level of activity. Scenarios are



made as sensitivity test for possible decrease in market conditions to understand whereas company can generate profit and has a positive NPV within 20 year life-time period. Total NPV for basis scenario is 50,035 thousand UAH. Company can generate enough profit for its owners.

Table 3.8

**Decrease of green tariff (second advanced scenario) of JSC “KPMG audit”  
invested project**

Items	Years					
	0	1	2	3	4	5-20
Net cash flow	0	1	2	3	4	5-20
1. Investments	-20,000	-	-	-	-	-
2. Operating costs	-	-44,933	-44,575	-44,216	-43,858	-669,102
3. Gross benefits	-	52,400	52,400	52,400	52,400	754,559
4. Net benefits	-20,000	7,467	7,825	8,184	8,542	85,458
5. Discounting factor	1	0.894	0.799	0.714	0.638	0.017
6. NPV	-20,000	6,673	6,249	5,841	5,448	22,388

National Energy and Utilities Regulatory Commission of Ukraine stated fixed tariff for our investment company up to 2024 year, thus, we can expect drop in tariffs after 2024 year. Based on information presented above, we can conclude that even with drop of tariffs for 10%, company still can generate positive NPV.

Table 3.9

**Decrease of green tariff (the worst case scenario) of JSC “KPMG audit” invested  
project**

Items	Years					
	0	1	2	3	4	5-20
Net cash flow	0	1	2	3	4	5-20
1. Investments	-20,000	-	-	-	-	-
2. Operating costs	-	-44,933	-44,575	-44,216	-43,858	-669,102
3. Gross benefits	-	52,400	52,400	52,400	52,400	670,719
4. Net benefits	-20,000	7,467	7,825	8,184	8,542	1,618
5. Discounting factor	1	0.894	0.799	0.714	0.638	0.017
6. NPV	-20,000	6,673	6,249	5,841	5,448	-1,050

The worst scenario requires drop of tariff for 20% with existing level of activity

of 95%. Such drop will cause 3,161 thousand UAH of total NPV. NPV for 20 years of operating activity close to zero, but company still can cover costs and return 3,161 thousand UAH to its owners.

Taking into accounting all 3 case scenarios, we can conclude that stress tests are passed. Sensitivity calculations results decrease in NPV for 2,344 thousand UAH for each 1% drop of tariff after 2024 year of operating. All 3 scenarios show ability of investment project to generate positive NPV for all life-time period.

Investment project is subject for other different risks from both controllable and uncontrollable factors. Based on the results of the sensitivity analysis and taking into account uncertainties related to aspects not directly reflected in our calculations, a risk matrix was prepared in order to identify possible risk prevention and mitigation measures. Risk matrix is represented in table 3.10.

The results of the sensitivity and risk analyses indicate that the project overall risk level is low to moderate. Also, the measures put in place to prevent the occurrence of the identified risks and/or mitigate their adverse impact should result in a lower residual risk. The probability of the project failing to attain its targeted objective at a reasonable cost can be considered to be marginal.

*Table 3.10*

**Matrix risk of JSC “KPMG audit” investment project**

<b>Risk description</b>	<b>Probability</b>	<b>Severity</b>	<b>Risk level</b>	<b>Risk prevention / mitigation measures</b>	<b>Residual risk</b>
<b>Demand and supply risk</b>					
Significant drop in demand	2	2	4	Drop of supply and demand could be caused by significant changes in Ukraine’s economy. Ukrainian history had a several significant crisis. Nowadays Ukrainian government aims to increase share of green energy sector and protects green energy industry. Also there is highly unlikely that all people and enterprises stop living in short-term period	Low
Significant drop in supply	2	2	4		

Continuation of table 3.10

<b>Financial risk</b>					
Liquidity risks	3	3	9	Company sells its electricity to central buyer always for cash with short term repayment period. Also company has enough cash balances to cover all short-term liabilities (except loan)	Low
Risks of immediate debt return	3	5	15	Credit line requires year to year Bank`s revision of further work with company. Management maximize effort for not breaching covenants. In worst case, company has ability to attract more funds from owners to repay the debt	Moderate
<b>Implementation risks</b>					
Problems with land purchase and acquisition of rights of way	2	2	4	The project is part of the list of national strategic infrastructure enshrined in the new Energy Act for which facilitated land rights procedures are foreseen	Low
Unforeseen technical problems during works	1	4	4	All property was purchased from different strong market suppliers which excludes technical problems in all solar panels. Also all property have warranty period for 5 years.	Low
<b>Environmental risks</b>					
Negative impacts from weather conditions.	1	1	1	Ukraine located in the temperate climate zone, which excludes long-term bad weather. Also company can still be profitable with drop up to 20% of its revenues which is highly unlikely	Low

Considering all information stated above, we can conclude that investment project is recommended for further operation. Starting from 2020 year, company will put all into operation all solar panels with at least 95% of its capacity. Market conditions are not very optimistic in term of demand and supply. Demand and supply in electricity market is not stable and varies from year to year. By the way, sector of alternative energy is well developed and growth rapidly. Rapid growth is an indicator of future



perspectives and further development of the sector.

Based on Cost-Benefit analyse and IRR calculation, we can accept the project. NPV of the project is positive. IRR rate is between 35% to 40% which is much more higher than average cost of capital.

Performed sensitivity tests shown the ability of project to generate profit and positive NPV even with 20% drop of tariff fixed rate.

Risk which related to operating effectiveness were mitigated and won't lead to significant problems.

## CONCLUSIONS AND PROPOSALS

Economic analysis of investments is based on two types of assessment of investment processes: accounting assessment and dynamic.

The system of investment efficiency metrics can be classified into two groups: discounted (NPV, PI, and IRR) and unsophisticated (ROI and payback period). Discounted metrics are considered more important, since their projection horizon covers the total life of an investment project and allows for analyzing all possible changes in business parameters over the project life and adjusting them for the effect of time.

Based on analysis of financial performance of investment project during 2017-2019 year and projections for 2020 year, we conclude, that company has started purchasing of solar panels in 2018. Such conclusions was reached due to increase “Building in progress” caption in 2018 in amount of 63 422 thousand UAH at the end of 2018. During 2019 company started to build a station from purchased panels and equipment. During 2019 company faced with significant operating expenses due to launch of solar station and in December 2019 most of “Building in progress” were transferred to PPE caption and were put into operation. We can also see that company generated first revenue during 2019 in total amount of 6 635 thousand UAH.

Projected results of profit and loss shows a good performance of the company. Net profit margin – 19%, assets profitability – 14%.

As well as significant amount project financing consists from borrowed funds, company successfully uses financial leverage at the level of 5,69 in 2020 year and increase return on its own funds.

JSC «KPMG Audit» has invested UAH 20,000 thousand in an investment project related to the generation of electricity from alternative sources. The green energy sector is under strong government control, which directly and indirectly affects the development of the alternative energy sector. Beginning in 2008, the Ukrainian government introduced a single green tariff for electricity producers from alternative

sources. The government is also obliged to buy all green energy produced and pay for it according to the green tariff.

The level of the tariff was relatively high, which allowed the sector to develop very quickly with the involvement of a large number of investments, in particular foreign ones for the construction of power plants. Since the beginning of 2014, the green tariff continues to gradually decrease, but remains at a fairly significant level, which allows to recoup the invested funds after 3-4 years of operation of the station.

In particular, climate conditions have a positive effect on the ability to produce electricity using solar energy. Ukraine has an average of 3060 hours of sunshine a year, which makes it possible to generate enough electricity to achieve profitability.

Ukraine's energy balance is not stable and is represented by minor deteriorations and improvements in both electricity production and consumption in Ukraine. However, Ukraine has the opportunity to export surplus electricity to other countries, and the green energy sector is of paramount importance to Ukraine and is supported by a government program that reduces the risk of poor market conditions.

The investment project has completed the construction phase and is ready for launch in early 2020. The company received a permit for the production and sale of electricity with a fixed tariff of UAH 3,84 per 1 kilowatt-hour for the period from 2020 to 2024 in accordance with the resolution of the National Commission for Regulation of Economic Competition of Ukraine. The company also has attracted loans in the form of a credit line opened with the bank in the amount of 66,258 thousand UAH.

After analyzing the financial condition of the company, we can conclude that the financial strength of the company is not very high, because most of the investment and credit funds were used to build a solar station. As the credit line has a term of revision of conditions on an annual basis, the credit is considered - as short-term that worsens financial stability of the enterprise. Also, more than half of the financial resources are borrowed.

Analyzing the efficiency of the investment project, the feasibility of investing



funds and the profitability of the project throughout the life of the investment project, we can recommend the project for implementation.

Analyzing the indicators of Cost-Benefit ratio, Internal Rate of Return and Discounted pay back period, we can conclude about the feasibility of launching an investment project. Cost-Benefit ratio - 1.25, which allows you to receive 25% of all funds spent over the life of the company. Internal Rate of Return is much higher than the cost of capital, which is acceptable for a decision to launch a project. The payback period of the project is within 4 years, which is an acceptable condition for investing funds.

Due to the reduction of electricity production tariffs and the direct dependence of the company on the government's decision, the investment project is subject to increased risk. To understand the level of impact of the possibility of tariff reduction, we calculated a sensitivity test, which showed us that the company has the ability to recoup its activities with a tariff reduction of 10 to 20% and return the invested funds throughout the project's life cycle.

Analyzing all the above factors, we can conclude that the investment project is recommended for the implementation and launch of the solar station.

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**APPENDICES**

## Appendix A

Table A.1

Додаток 1 до Національного положення (стандарту) бухгалтерського обліку 25 "Спрощена фінансова звітність" (пункт 5 розділу I)

## Фінансова звітність малого підприємства

Підприємство	Дата(рік,місяць,число)	Коди		
Приватне акціонерне товариство "КПМГ Аудит"	за СДРПОУ	2019	10	01
Територія м. Київ	за КОАТУУ	23740981		
Організаційно-правова форма господарювання Приватне акціонерне товариство	за КОПФГ	1222380503		
Вид економічної діяльності Виробництво електроенергії	за КВЕД	35.11		
Середня кількість працівників, осіб 2				
Одиниця виміру: тис. грн. з одним десятковим знаком				
Адреса, телефон вулиця м. Київ, вул. Московська 24				

## Баланс на 31 грудня 2018 р.

	Форма № 1-м	Код за ДКУД	1801006
Актив	Код рядка	На початок звітного року	На кінець звітного періоду
1	2	3	4
<b>I. Необоротні активи</b>			
Нематеріальні активи	1000	-	-
первісна вартість	1001	-	-
накопичена амортизація	1002	( - )	( - )
Незавершені капітальні інвестиції	1005	162,6	63 421,6
Основні засоби :	1010	-	-
первісна вартість	1011	-	-
знос	1012	( - )	( - )
Довгострокові біологічні активи	1020	-	-
Довгострокові фінансові інвестиції	1030	-	-
Інші необоротні активи	1090	-	-
<b>Усього за розділом I</b>	<b>1095</b>	162,6	63 421,6
<b>II. Оборотні активи</b>			
Запаси :	1100	-	72,5
у тому числі готова продукція	1103	-	-
Поточні біологічні активи	1110	-	-
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	6,0	1 910,6
Дебіторська заборгованість за розрахунками з бюджетом	1135	12,0	5 869,5
у тому числі з податку на прибуток	1136	-	-
Інша поточна дебіторська заборгованість	1155	-	-
Поточні фінансові інвестиції	1160	-	-
Гроші та їх еквіваленти	1165	79,3	4 588,9
Витрати майбутніх періодів	1170	11,1	14,8



Інші оборотні активи	1190	200,0	18 477,8
<b>Усього за розділом II</b>	<b>1195</b>	308,4	30 934,1
<b>III. Необоротні активи, утримувані для продажу, та групи вибуття</b>	<b>1200</b>	-	-
<b>Баланс</b>	<b>1300</b>	471,0	94 355,7
Пасив	Код рядка	На початок звітнього року	На кінець звітнього періоду
1	2	3	4
<b>I. Власний капітал</b>			
Зареєстрований (пайовий) капітал	1400	555,0	20 000
Додатковий капітал	1410	-	-
Резервний капітал	1415	-	-
Нерозподілений прибуток (непокритий збиток)	1420	(29,0)	333,5
Неоплачений капітал	1425	( 55,0 )	( - )
<b>Усього за розділом I</b>	<b>1495</b>	471,0	20 333,5
<b>II. Довгострокові зобов'язання, цільове фінансування та забезпечення</b>			
<b>III. Поточні зобов'язання</b>			
Короткострокові кредити банків	1600	-	56 543,1
Поточна кредиторська заборгованість за:			
довгостроковими зобов'язаннями	1610	-	-
товари, роботи, послуги	1615	-	278,8
розрахунками з бюджетом	1620	-	74,6
у тому числі з податку на прибуток	1621	-	73,4
розрахунками зі страхування	1625	-	1,4
розрахунками з оплати праці	1630	-	4,9
Доходи майбутніх періодів	1665	-	-
Інші поточні зобов'язання	1690	-	17 119,4
<b>Усього за розділом III</b>	<b>1695</b>	-	74 022,2
<b>IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття</b>	<b>1700</b>	-	-
<b>Баланс</b>	<b>1900</b>	471,0	94 355,7

## Звіт про фінансові результати за 2018р.

		Форма № 2-м	Код за ДКУД	1801007
Стаття	Код рядка	За звітний період	За аналогічний період попереднього року	
1	2	3	4	
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	2000	-	-	
Інші операційні доходи	2120	21,2	-	
Інші доходи	2240	-	-	
<b>Разом доходи (2000 + 2120 + 2240)</b>	<b>2280</b>	<b>21,2</b>	<b>-</b>	
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	( - )	( - )	
Інші операційні витрати	2180	( 89,1 )	( 5,6 )	
Інші витрати	2270	( - )	( - )	
<b>Разом витрати (2050 + 2180 + 2270)</b>	<b>2285</b>	<b>( 89,1 )</b>	<b>( 5,6 )</b>	
Фінансовий результат до оподаткування (2280 – 2285)	2290	(67,8)	(5,6)	
Податок на прибуток	2300	( - )	( - )	
<b>Чистий прибуток (збиток) (2290 – 2300)</b>	<b>2350</b>	<b>(67,8)</b>	<b>(5,6)</b>	

## Appendix B

Table B.1

Додаток 1 до Національного положення (стандарту) бухгалтерського обліку 25 "Спрощена фінансова звітність" (пункт 5 розділу I)

## Фінансова звітність малого підприємства

Підприємство

Приватне акціонерне товариство "КПМГ Аудит"

Дата(рік,місяць,число)

за ЄДРПОУ

Коди		
2020	04	01
21534148		
1222380504		
35.11		

Територія м. Київ

за КОАТУУ

Організаційно-правова форма господарювання Приватне акціонерне товариство

за КОПФГ

Вид економічної діяльності Виробництво електроенергії

за КВЕД

Середня кількість працівників, осіб

Одиниця виміру: грн. з одним десятковим знакомАдреса, телефон м.Київ, вул. Московська 24.

Форма № 1-м Код за ДКУД

1801006

## Баланс на 31 грудня 2019 р.

Актив	Код рядка	На початок звітного року	На кінець звітного періоду
1	2	3	4
<b>I. Необоротні активи</b>			
Нематеріальні активи	1000	-	2,1
первісна вартість	1001	-	2,1
накопичена амортизація	1002	( - )	( - )
Незавершені капітальні інвестиції	1005	63 421,6	6 602,7
Основні засоби :	1010	-	61 136,6
первісна вартість	1011	-	61 560,0
знос	1012	( - )	( 423,4 )
Довгострокові біологічні активи	1020	-	-
Довгострокові фінансові інвестиції	1030	-	-
Інші необоротні активи	1090	-	-
<b>Усього за розділом I</b>	<b>1095</b>	<b>63 421,6</b>	<b>67 741,4</b>
<b>II. Оборотні активи</b>			
Запаси :	1100	72,5	84,6
у тому числі готова продукція	1103	-	-
Поточні біологічні активи	1110	-	-
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	1 910,6	1 838,9
Дебіторська заборгованість за розрахунками з бюджетом	1135	5 869,5	1 266,2
у тому числі з податку на прибуток	1136	-	-
Інша поточна дебіторська заборгованість	1155	-	19,3
Поточні фінансові інвестиції	1160	-	-
Гроші та їх еквіваленти	1165	4 588,9	7 261,0
Витрати майбутніх періодів	1170	14,8	11,4



Інші оборотні активи	1190	18 477,8	18,8
<b>Усього за розділом II</b>	<b>1195</b>	<b>30 934,1</b>	<b>10 500,2</b>
<b>III. Необоротні активи, утримувані для продажу, та групи вибуття</b>	<b>1200</b>	-	-
<b>Баланс</b>	<b>1300</b>	<b>94 355,7</b>	<b>78 241,6</b>
Пасив	Код рядка	На початок звітного року	На кінець звітного періоду
1	2	3	4
<b>I. Власний капітал</b>			
Зареєстрований (пайовий) капітал	1400	20 000,0	20 000,0
Додатковий капітал	1410	-	-
Резервний капітал	1415	-	-
Нерозподілений прибуток (непокритий збиток)	1420	333,5	(8 555,4)
Неоплачений капітал	1425	( - )	( - )
<b>Усього за розділом I</b>	<b>1495</b>	<b>20 333,5</b>	<b>11 444,6</b>
<b>II. Довгострокові зобов'язання, цільове фінансування та забезпечення</b>	<b>1595</b>	-	-
<b>III. Поточні зобов'язання</b>			
Короткострокові кредити банків	1600	56 543,1	66 258,0
Поточна кредиторська заборгованість за:			
довгостроковими зобов'язаннями	1610	-	-
товари, роботи, послуги	1615	278,8	210,8
розрахунками з бюджетом	1620	74,6	3,4
у тому числі з податку на прибуток	1621	73,4	-
розрахунками зі страхування	1625	1,4	3,8
розрахунками з оплати праці	1630	4,9	13,6
Доходи майбутніх періодів	1665	-	-
Інші поточні зобов'язання	1690	17 119,4	307,4
<b>Усього за розділом III</b>	<b>1695</b>	<b>74 022,2</b>	<b>66 797,0</b>
<b>IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття</b>	<b>1700</b>	-	-
<b>Баланс</b>	<b>1900</b>	<b>94 355,7</b>	<b>78 241,6</b>

Table B.2

## Звіт про фінансові результати за 2019 р.

		Форма № 2-м	Код за ДКУД	1801007
Стаття	Код рядка	За звітний період	За аналогічний період попереднього року	
1	2	3	4	
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	2000	6 644,8	-	
Інші операційні доходи	2120	2 700,0	21,2	
Інші доходи	2240	32,8	-	
Разом доходи (2000 + 2120 + 2240)	2280	9 378,6	21,2	
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	( 2 149,6 )	( - )	
Інші операційні витрати	2180	( 39 198,8 )	( 89,1 )	
Інші витрати	2270	( 3584,8 )	( - )	
<b>Разом витрати (2050 + 2180 + 2270)</b>	<b>2285</b>	<b>( 44 933,3 )</b>	<b>( 89,1 )</b>	
Фінансовий результат до оподаткування (2280 – 2285)	2290	(35 555,6)	(67,8)	
Податок на прибуток	2300	( - )	( - )	
<b>Чистий прибуток (збиток) (2290 – 2300)</b>	<b>2350</b>	<b>(35 555,6)</b>	<b>(67,8)</b>	