



# Renewable Energy and Venture Capital Structuring in Bulgaria: Lessons to be learned

A Master's Thesis submitted for the degree of  
"Master of Science"

supervised by  
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Abstract

The Bulgarian Green Investment Fund AD was set up in the course of 2008-2009 as a Bulgarian venture capital vehicle with a purpose to attract risk capital allocations from interested institutional and private investors in the renewable energy (RE) sector. However it soon became clear that fund was set up on what the author tries to argue are weak premises and with inadequate structure. This Master investment and financial requirements of the RE sector in Bulgaria. This Master Thesis is looking to examine what apparent lesson can be drawn from this real life example of venture capital structuring in support of renewable energy investments in one of the smaller European emerging markets.

## Affidavit

I, **Drazen Kucan**, hereby declare

1. that I am the sole author of the present Master Thesis, "Renewable energy and venture capital structuring in Bulgaria: Lessons to be learned", 74 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master Thesis as an examination paper in any form in Austria or abroad.

Manila, 10 October 2010

Date

Signature

# Abstract

The Bulgarian Green Investment Fund AD was set up in the course of 2008-2009 as a Bulgarian venture capital vehicle with a purpose to attract risk capital allocations from interested institutional and private investors in the renewable energy (RE) sector. However it soon became clear that fund was set up on, what the author tries to argue, are weak premises and with inadequate structure to deal with any relevant investment and financial requirements of the RE sector in Bulgaria. This Master Thesis is looking to examine what apparent lesson can be drawn from this real life example of venture capital structuring in support of renewable energy investments in one of the smaller European emerging markets.



# Table of content

Affidavit .....	i
Abstract.....	ii
Table of content.....	iii
List of Tables & Graphs .....	v
List of figures .....	vi
1 Introduction.....	1
1.1 Motivation.....	1
1.2 What is the core objective / the core question? .....	2
1.3 Citation of main literature .....	2
1.4 Structure of work.....	2
2 Theory behind private equity, and its broad subcategory, venture capital (VC) concept / venture capital fund .....	3
2.1 Conclusion: What makes Venture Capital Operations Successful? .....	8
3 Review of the Bulgarian economy and the energy sector with renewables .....	10
3.1 Key indicators and basic facts .....	10
3.2 The 12 pillars of competitiveness .....	12
3.3 Bulgaria's energy sector .....	16
3.4 Bulgaria's high electricity production per capita and nuclear power generation capacity .....	18
3.5 Bulgarian energy related institutions.....	19
4 Critical analysis of BGIF and its approach .....	20
4.1 Summary of Investment proposal.....	20
4.2 Structure of the proposed fund .....	20
4.3 Structure of management company.....	21
4.4 Share Capital .....	21
4.5 Increase of the share capital .....	22
4.6 Envisaged Structure of the Fund .....	23
4.7 Risk analysis .....	24
4.7.1 Investor's wisdom .....	24
5 Key concerns: leading to negative conclusion – why the BGIF approach does not work.....	25
5.1 Why to avoid hasty conclusion .....	25
5.2 Analysis.....	26

# Master Thesis

MSc Program  
Renewable Energy in Central & Eastern Europe

5.2.1	Timeframe defficiency .....	26
5.2.2	Portfolio structure defficiency.....	27
5.2.3	Envisaged financial returns unrealistic.....	27
5.2.4	Legal structure open to questions.....	27
5.2.5	Doubtful investment policy.....	28
5.2.6	Financial forecasting for the Funds' activities.....	29
5.3	Negative Conclusion: BGIF proposed structure and approach does not work .....	30
6	Summary and Lessons to be learned .....	31
6.1	Basic considerations for financing of RES and/or PV projects in Bulgaria and CEE emerging markets .....	31
6.2	Potential Role for venture capital providers in RES projects.....	34
7	APPENDIX I .....	37
	List of Literature / Sources .....	37
8	APPENDIX II .....	38

# List of Tables & Graphs

## Tables

Table 1: Investors typology	Page 6
Table 2: Bulgaria, Country Summary	Page 11
Table 3: Bulgaria's GDP growth rate	Page 12
Table 4: Bulgaria's 12 pillars of competitiveness	Page 14
Table 5: The most problematic factors of doing business in Bulgaria	Page 15
Table 6: Bulgaria's energy balance	Page 17

## Graphs & Illustrations

Graph 1: Illustration of total market for investors	Page 5
Graph 2: Structure of a generic private equity fund	Page 8
Graph 3: State of Electric Power Gross Production in Bulgaria by types of power plants	Page 18
Graph 4: Envisaged structure of the BGIF	Page 23

## List of figures

- Bulgarian GDP in 2008	Page 11
- Bulgarian electricity generation in 2006	Page 11
- Demographic Information on Bulgaria	Page 11
- Macroeconomic Data on Bulgaria	Page 11
- Bulgarian electricity disposition	Page 11
- Bulgarian electricity generation capacity	Page 11
- Bulgarian GDP growth rates	Page 12
- Bulgarian competitiveness index	Page 14
- Bulgarian energy balance	Page 17
- BGIF structure of the proposed Fund	Page 20
- BGIF structure of the management company	Page 21
- BGIF share capital	Page 21, 22
- BGIF increase of share capital	Page 22



# 1 Introduction

The author of this Master Thesis worked as a CEO of the Ilirika Securities Ltd in Zagreb, Croatia in the course of 2008 when he was approached by a Bulgarian advisor from Sophia on behalf of the Bulgarian Green Investment Fund AD (in further text: BGIF), a venture capital structure that was about to start global marketing campaign with a purpose of attracting investors, both institutional and private, to invest in the BGIF. The idea was to identify providers of risk capital interested to allocate capital volumes to this specific vehicle which was supposed to invest in the Bulgarian renewable energy sector. As a CEO, Drazen Kucan was then in charge of managing about Euro 200 million of assets of various clients and had the capacity, alongside his wider team, to structure and propose specific investment decisions that would offer optimal risk return relation to interested parties. In this process he began analyzing the BGIF and came to some critical conclusion that are forming key fundamentals of this Master Thesis as he strongly advised his clients against any serious investment considerations related to the BGIF.

## 1.1 Motivation

Out of many challenges that are facing the renewable energy sector in general and most certainly the RE sector in emerging markets of the Central & Eastern Europe, I was personally always intrigued in financing complexities that are forming an important element of the overall challenge of developing and implementing viable and sustainable renewable energy projects. As experienced RE practitioners are well aware, many projects in the sector are made marginally profitable only by applying specific set of international or national, government or municipal, direct or indirect support schemes and/or subsidies; and in absence of these instruments more often than not majority of RE projects are simply losing money and are therefore not possible to implement. The same is the case throughout emerging markets, of which we here study the specific case of Bulgaria and attempt to find somewhat novel approach to RE financing through a local venture capital fund.

## **1.2 What is the core objective / the core question?**

The core objective of this Master Thesis is to identify whether and how a venture capital fund as an instrument can be useful to financing of renewable energy projects in Bulgaria and possibly similar emerging markets of the Central & Eastern Europe. The author analyses obvious weaknesses in structuring of the BGIF and tries to draw lessons to be learned for future venture capital structures that would be considered in support of the RE sector in Bulgaria and elsewhere in the region.

## **1.3 Citation of main literature**

The author finds the two specific academic literature titles, related to often ambivalent relation between the venture capital concept, its profile and structure, as well as its aspirations and the renewable energy sector, particularly useful and inspiring for this Thesis:

1. Sjoo, Karlin: 'The influence of uncertainty on Venture Capital Investments in Renewable Energy technology: an explanatory study'. University of Oslo / Lund University, Innovation and Economic Development in the New Europe: Regional, National and Supranational Perspectives series, Oslo, Norway, 2007 / 2008;
2. Teppo, T. and Wuestenhagen, R.: 'Why Corporate Venture Capital Funds Fail – Evidence from the European Energy Industry', International Journal of Entrepreneurship and Innovation Management, 2007.

The full list of literature and sources used in preparing this Thesis can be found in Appendix 1.

## **1.4 Structure of work**

- a) Theory behind venture capital concept of investment and venture capital fund;
- b) Review of the Bulgarian economy and renewable energy sector
- c) Critical analysis of the BGIF and its approach;
- d) Summary and lessons to be learned (for wider implications regarding the financing complexities of renewable energy projects in Bulgaria and possibly similar emerging markets of the Central & Eastern Europe)

## **2 Theory behind private equity, and its broad subcategory, venture capital (VC) concept / venture capital fund**

For the purpose of this Thesis, it is perhaps necessary to clarify terminology behind private equity and venture capital. Private equity in broadest sense is monetary value invested in enterprises which are, as a rule of thumb, not publicly quoted on the stock exchange or invested in various forms of financial instruments (such as corporate bonds), divestiture or buyouts of companies quoted on a stock exchange.

Venture capital is considered to be a broad subcategory of private equity and it refers to equity investments made usually in less developed enterprises which are perceived to have high growth or market expansion potential.

The author remembers an interview with an experienced VC practitioner when initially making his first ever review of a VC fund. It was then suggested that VC investment is like a slice of cake before baking; if all ingredients are in place and temperature of the oven is correct, provided there will be no further risk of oven malfunctioning, in time of baking process the whole cake as well as simultaneously our slice of cake will significantly grow and become ready for a treat and final consumption. Pretty good return from a few eggs, a bit of flour, butter and sugar, one would argue.

So in this academic exercise, we try to examine on a real life case from Bulgaria what are the necessary ingredients and temperature that may or may not entice renewable energy investment in emerging market environment such as Bulgaria.

How exactly we explain what are the Funds?

## Master Thesis

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Renewable Energy in Central & Eastern Europe

Funds – also known as collective investment vehicles – are 'financial structures for pooling and managing the monies of multiple investors. Investors cede their money to professional managers, who in turn buy either listed securities, or private equity stakes in companies or are investing in other assets, such as real estate'. All parties should gain from this relationship.

Investors buy specific asset class that they could not otherwise hold or reach due to transaction costs, legal restrictions or lack of specific expertise. They can diversify assets, arguably achieve better liquidity and obtain the benefits of professional management and research. Specialized funds – such as arguably BGIF tries to be – can meet different risk-reward preferences of investors.

Because of the nature of venture capital fund (in further text: VCF) – long term, illiquid investments, with returns mainly realized at fund closure – their financial performance emerges slowly.

Usual critical review of VCF overall standing as well as performance includes these typical assessments<sup>1</sup>:

1. Management is the most important determinant of fund performance. However, identifying experienced, highly qualified VC managers willing to manage relatively small funds in difficult environment such as for example Bulgaria has proved a challenging task. Therefore, good VC managers provide more than equity to firms – they supply advice on marketing, management and industrial contacts, which are all important components of building successful private firms or enterprise concepts.
2. Fund structure helps define incentives for managers to perform and for fund shareholders to remain interested, but not to interfere too much. Important structural elements, according to IFC, include minimum fund size, a two-tier structure to separate fund from the management company, a limited fund life (to give managers the incentive to divest), a common goal for shareholders, and mechanisms to prevent conflict of interest between fund managers and the fund (for instance, disclosure and review process).
3. Deal flow. Many funds invested less and more slowly than expected. In some countries, venture capital conflicted with local cultural norms, as small, closely held firms were not used to sharing project ideas with outsiders, or

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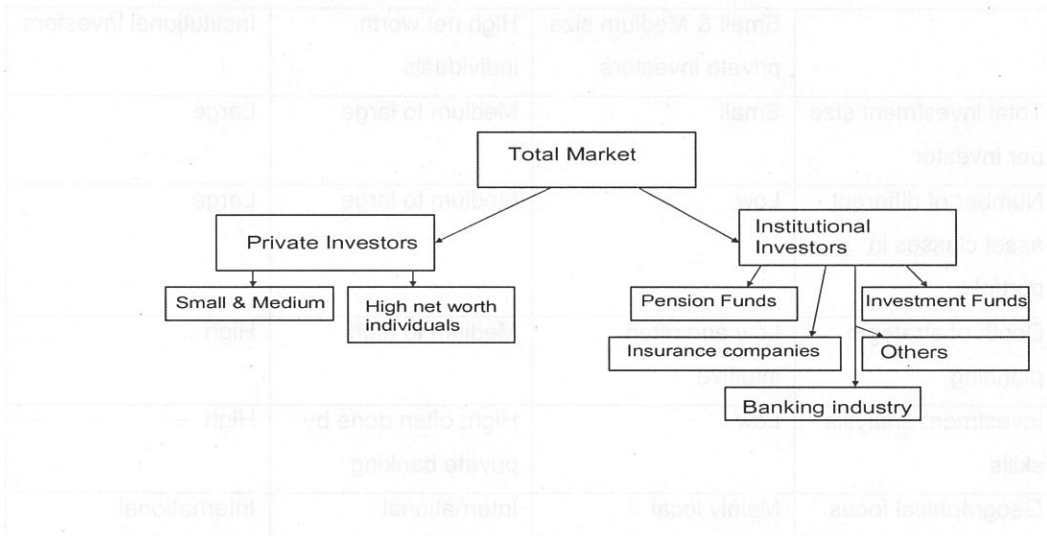
<sup>1</sup> Source: Investment funds in emerging markets, IFC, The World Bank, 1996.

ceding some ownership and control. In experienced fund managers needed a long time to build up an investment pipeline. And macroeconomic instability in some countries reduced firms' investment plans.

4. Exit difficulties. Selling VC investments is often difficult. Liquidating a VC fund fully may take longer than anticipated, depending on the size and liquidity of the local stock market, and the attitude of the owners of local firms.

It is arguably academically interesting to approach the understanding of venture capital concept from a perspective of investor community, therefore examining funding sources for venture capital and understanding their specific expectations and rationale to pursue what we later explain as high risk investment appetite.

Assessing the funding sources of venture capital in general and venture capital funds in particular requires us to understand a widely accepted common definition of investors from which the two basic types of investors can be identified (that form the total market for funds):



Graph 1: Illustration of total market for investors

So clearly the venture capital concept is about promoting appetite for investment with a higher risk profile than standard liquidity placements

The market of private investors has to be separated into two distinct groups: Small & medium sized private individuals and High net worth individuals. Those two types have very different attributes and investment practices and therefore they cannot be treated as homogenous investor group.

High net worth individuals are commonly defined as private investors investing more than Euro 1 million in financial assets, excluding their primary residence<sup>2</sup>. Small & medium sized investors are below this boundary. Institutional investors are all entities that invest in and trade with large volumes of financial instruments, such as for example promissory notes and securities, but also more risky derivatives and hedge instruments.

The different types of institutional investors form a much more homogenous group than private individuals do. These are typically large investors with a wide range of different assets in their portfolio. Investment decisions are usually based on solid economic and strategic analysis. Existing differences in their preferences regarding their specific investment interests in various asset classes are discussed in the Table 1 below:

Table 1: Investors typology

	Small & Medium size private investors	High net worth individuals	Institutional investors
Total investment size per investor	Small	Medium to large	Large
Number of different asset classes in portfolio	Low	Medium to large	Large
Depth of strategic planning	Low and often intuitive	Medium to high	High
Investment analysis skills	Low	High; often done by private banking	High
Geographical focus	Mainly local	International	International

A full analysis of key investment criteria reveals that institutional investors and high net worth individuals show fundamentally similar behavior and attributes and therefore can be considered as one market segment. Only small and medium private investors show completely different attitude towards investment.

Findings about various institutional investors and High net worth individuals are based on a number of personal interviews and/or discussions with the investment

<sup>2</sup> Source: CapGemini & Merrill Lynch, World Wealth Report 2005.

## Master Thesis

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community the author of this Master Thesis conducted during his tenure as a CEO of Ilirika Securities Ltd in Zagreb, Croatia.

Typical institutional investors as well as High net worth individuals usually base their investment decisions on careful analysis of the financial market dynamics and the existing investment opportunities associated with asset class, targeted risk profile, volume, maturity, specific market segment / country, etc. Main stream of these investors find alternatives such as renewable energy increasingly important part of their portfolio and to usually have much more diversified composition of total assets, which reduces the overall portfolio risk.

When we look into small & medium private investors' market segment, which's total asset value, is generally lower than Euro 1 million, we also notice that this segment is increasingly looking for alternatives to the traditional forms of investment. Most investors are very aware of increasingly volatile markets and global economic uncertainty and are looking for market size and growth potential for investment products other than traditional ones and this is where renewable energy comes to fore.

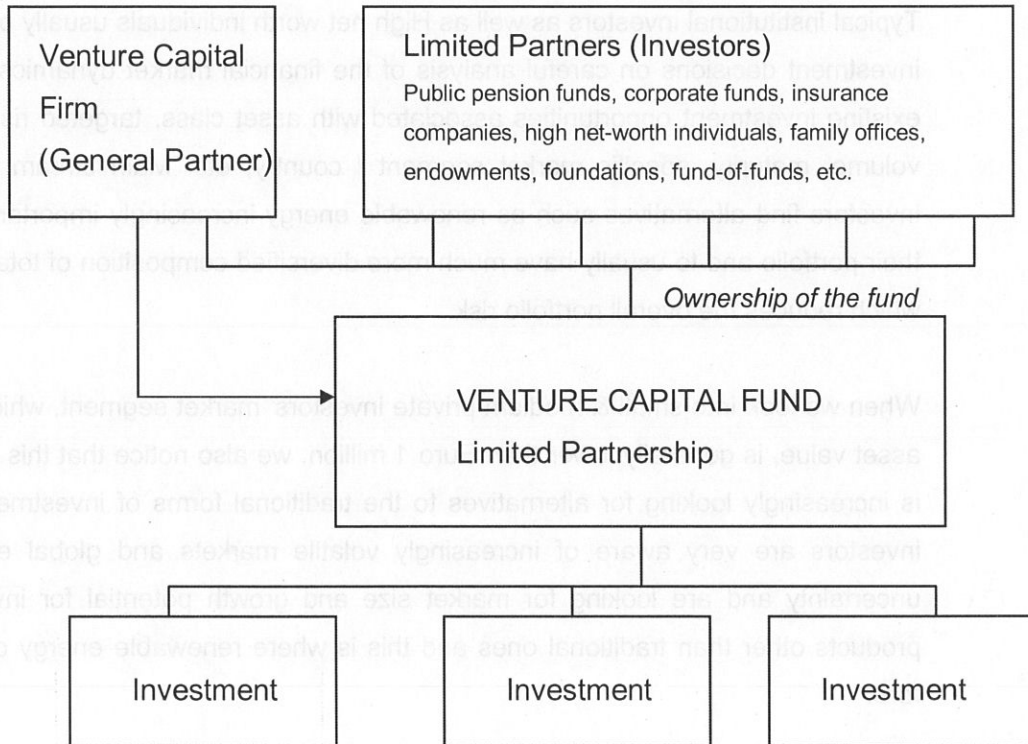
Now that we have reviewed market attractiveness factor of both investor's segments, let us turn to understanding the concept of the private equity fund.

'Private equity fund is a collective investment scheme used for making investments in various equity (and to a lesser extent debt) securities according to one of the investment strategies associated with private equity. Private equity funds are typically limited partnerships with a fixed term of 10 years (often with annual extensions). At inception, institutional investors make an unfunded commitment to the limited partnership, which is then drawn over the term of the fund.

A private equity fund is raised and managed by investment professionals of a specific private equity firm (the general partner and investment advisor). Typically, a single private equity firm will manage a series of distinct private equity funds and will attempt to raise a new fund every 3 to 5 years as the previous fund is fully invested'<sup>3</sup>.

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<sup>3</sup> Source: Wikipedia, 2010.



Graph 2: Diagram of the structure of a generic private equity fund<sup>4</sup>

## 2.1 Conclusion: What makes Venture Capital Operations Successful?

Most likely, drawing from referenced literary sources, and from relevant professional experiences of the author of this Thesis who has been finance practitioner for quite some years, there are a few very key, very core factors that make VC operations successful.

<sup>4</sup> Ibidem.



## Master Thesis

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Renewable Energy in Central & Eastern Europe

1. Nothing can replace experienced operational team of managers who take due care of the 'nitty-gritty' smallest details of investment on virtually hourly and daily basis and properly manage assets and expenditures.
2. Some sectors and industries are meant to be paired with venture capital and some not – VC does usually require a small step in the right direction, achieving exponential growth. For example, telecommunications sector, especially mobile telephony in early development stages was a typical example of a very rewarding VC involvement which induced phenomenal growth of the industry virtually world-wide. On the other hand, venture capitalists very seldom enter hotel or massive tourism industry because of its heavy capital expenditure requirements and long term cycles (typically successful hotels break even only after ten or so years of investment) and rather marginal profitability.
3. Size of venture capital investments varies dramatically across the globe, with biggest sums regularly spent among the giants of the US venture capital industry. However, small to medium scale projects which are better overseeable and managed, if properly targeted, can achieve focused and better returns than massive and complex projects.
4. Apart from high level of operational management expertise, a multidisciplinary pool of skills should be at hand to assist on-going VC investments in any variety of disciplines required, especially technical and financial, but also organizational, marketing, scientific, etc.
5. Private sector participation rather than any public sector involvement is a golden rule for VC industry; nothing reproduces better the 'invisible hand' of the market than individual spirit of entrepreneurship and goal-oriented individual talent.

# 3 Review of the Bulgarian economy and the energy sector with renewables

## 3.1 Key indicators and basic facts

The National Statistical Institute of Bulgaria estimates the country's population for 2009 to be 7,606,000 people. According to the 2001 census, it consists mainly of ethnic Bulgarians (83.9%), with two sizable minorities, Turks (9.4%) and Roma (4.7%). Of the remaining 2.0%, 0.9% comprises some 40 smaller minorities, most prominently Russians, Armenians, Arabs, Chinese, Vlachs, Jews, Vietnamese, Crimean Tatars and Sarakatsani (historically known also as Karakachans). 1.1% of the population did not declare their ethnicity in the latest census in 2001<sup>5</sup>.

Since the collapse of Bulgaria's socialist government in 1997, the country has observed macroeconomic stabilization and consistent growth fueled by political and economic reforms of the new government. Total Bulgarian GDP amounted to US\$ 52 billion or US\$ 6,857 per capita in 2008<sup>6</sup>, or 0.14% as a share of the total world output in 2008, on a purchasing power parity basis (PPP).

The existing generation assets have been sufficient to supply domestic demand and have created a significant export market for electricity. In 2006, Bulgaria generated 43.5 billion kWh, while exporting over 8.9 billion kWh to its neighbors in Southeastern Europe. Despite the current excess of generating capacity, Bulgaria is actively seeking outside investment to expand, as 40 percent of the current generation is scheduled for retirement by 2010.

The Bulgarian government has proceeded more rapidly with restructuring and liberalization of the energy industry than many of its neighbors in CEE region. With

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<sup>5</sup> Source: Wikipedia, 2010.

<sup>6</sup> Source: The Global Competitiveness Report 2009 – 2010; World Economic Forum, 2009.

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the passage of Energy and Efficiency Act of July 1999, the following changes and goals have been initiated:

- Improving efficiency;
- Unbundling monopoly structures;
- Promoting privatization;
- Attracting foreign investment
- Establishing a State Regulatory Agency.

The electricity sector in Bulgaria is managed by the State Energy Regulator Agency. Under the agency, Nationalna Elektricheska Kompania (NEK) was split into six independent generators, a national transmission system operator, and seven regional distribution system operators. Steps towards the deregulation of the electricity markets are underway. As of 2007, the electricity generation companies are mainly state-owned, the electricity distribution companies are privatized and the district heating companies are still undergoing privatization<sup>7</sup>.

Table 2: Bulgaria Country Summary<sup>8</sup>

<b>Demographical Information</b>	
Population, millions (2009)	7.20
Land area, thousand sq km (2008)	111.0
<b>Macroeconomic Information (2008)</b>	
GDP, billion US\$	93.8
Real GDP growth rate, percent	6.0
Foreign direct investment (net), US\$ million in 2007	8,164
<b>Electricity disposition, billion kWh (2006)</b>	
Generation	43.15
Consumption	30.50
Exports	8.88
Imports	1.14

<sup>7</sup> EBRD: Bulgaria – Country Profile, 2009.

<sup>8</sup> Sources: CIA World Factbook, US Energy Information Administration, UN Conference on Trade and Development

<b>Generation capacity, GW (2005)</b>	
Nuclear	1.91
Thermal	6.68
Hydro	2.57
Other renewables	11.17

### 3.2 The 12 pillars of competitiveness

In order to understand the current state of the Bulgarian economy, which is relatively small in size and primarily depends on regional trade flows between western Balkan countries, especially in the context of attracting foreign investment through a venture capital fund vehicle, the reader needs to understand how competitive it really is and what may drive or indeed hinder its further success.

Table 3: Bulgaria's GDP growth rates

Year	GDP – real growth rate	Rank	Percent change	Date of information
2003	4.80%	43	na	2002. est.
2004	4.30%	72	-10.42%	2003. est.
2005	5.30%	72	23.26%	2004. est.
2006	5.50%	85	3.77%	2005. est.
2007	6.30%	63	14.55%	2006. est.
2008	6.20%	73	-1.59%	2007. est.
2009	6.00%	59	-3.23%	2008. est.
2010	-4.90%	185	-181.67%	2009. est.

Source: CIA World Fact Book, February 19<sup>th</sup>, 2010.

In author's opinion, arguably one of the best available definitions of competitiveness is provided by the World Economic Forum:

'We define competitiveness as a set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy. In other words, more-competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level also determines the rates of return obtained by investments in an economy. Because of the rates of return are the fundamental drivers of the growth rates of the economy, a more-competitive

# Master Thesis

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economy is one that is likely to grow faster in the medium to long run. The concept of competitiveness thus involves static and dynamic components: although the productivity of a country clearly determines its ability to sustain its level of income, it is also one of the central determinants of the returns to investment, which is one of the key factors explaining an economy's growth potential.<sup>9</sup>

In this respect, following the intellectual lead referenced above, the widely argued 12 pillars of competitiveness which are institutions, infrastructure, macroeconomic stability, health and primary education, higher education and training, good markets efficiency, labor market efficiency, financial market sophistication, technological readiness, market size, business sophistication, and innovation, are crucial in understanding not only the Index of Competitiveness but also where they might lead development of the country in longer term. These pillars are highly interrelated and tend to reinforce each other. So let us take closer look how competitive is Bulgaria (see next page):

<sup>9</sup> The Global Competitiveness Report 2009 – 2010, 2009 World Economic Forum, page 4

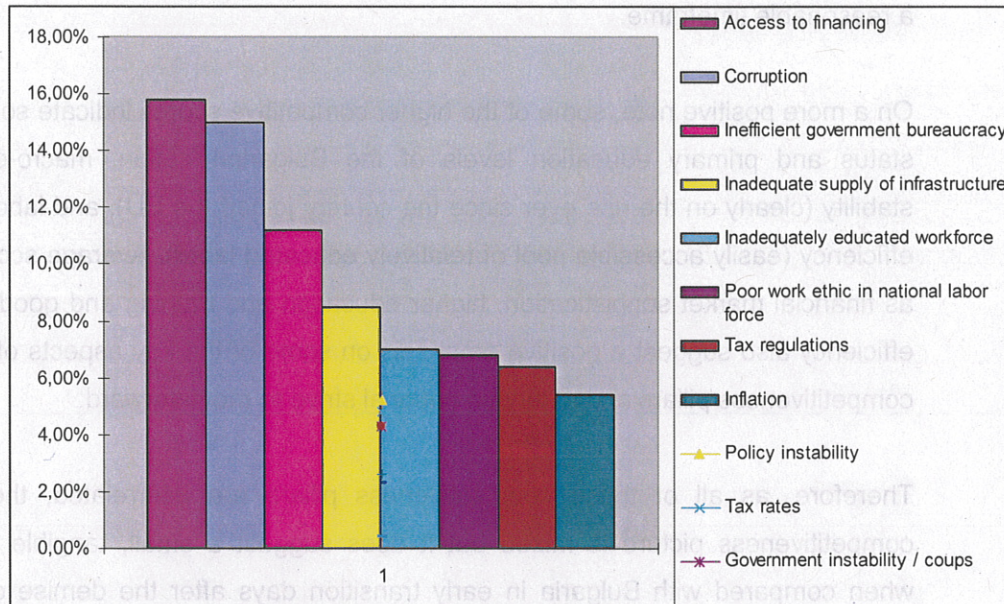
Table 4: Bulgaria's Global competitiveness Index

	Rank (out of 133)	Score (1-7)
<b>GCI 2009 – 2010</b>	<b>76</b>	<b>4.0</b>
GCI 2008 – 2009 (Out of 134)	76	4.0
GCI 2007 – 2008 (out of 131)	79	3.9
<b>Basic requirements</b>	<b>80</b>	<b>4.1</b>
1 <sup>st</sup> pillar: Institutions	116	3.2
2 <sup>nd</sup> pillar: Infrastructure	102	2.9
3 <sup>rd</sup> pillar: Macroeconomic stability	45	4.9
4 <sup>th</sup> pillar: Health and primary education	58	5.5
<b>Efficiency enhancers</b>	<b>62</b>	<b>4.1</b>
5 <sup>th</sup> pillar: Higher education and training	60	4.1
6 <sup>th</sup> pillar: Goods market efficiency	81	4.0
7 <sup>th</sup> pillar: Labor market efficiency	54	4.5
8 <sup>th</sup> pillar: Financial market sophistication	76	4.1
9 <sup>th</sup> pillar: Technological readiness	56	3.8
10 <sup>th</sup> pillar: Market size	58	3.9
<b>Innovation and business factors</b>	<b>89</b>	<b>3.3</b>
11 <sup>th</sup> pillar: Business sophistication	89	3.7
12 <sup>th</sup> pillar: Innovation	91	2.9

The most problematic factors for doing business in Bulgaria (expressed as percent of responses)<sup>10</sup>

<sup>10</sup> Note: from a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country / economy (in this case Bulgaria) and to rank them between 1 (most problematic) and 5. The bars in the table show the responses weighted according to their rankings. Source: The Global Competitiveness Report 2009 – 2010. World Economic Forum, 2009.

Table 5: The most problematic factors for doing business in Bulgaria



Responses are clearly indicating that access to financing and corruption coupled to a lesser extent with inefficient government bureaucracy and inadequate supply of infrastructure are main impeding factors for doing business in Bulgaria.

In this context, the key question we need to ask ourselves is how do these views affect chances of a fund such as BGIF and view of perspective investors to Bulgarian economy in general and fund industry in specific.

Well, it is all about risk perception and allocation of perceived risks. In itself, problematic access to financing may be a mixed blessing for a fund such as BGIF as it provides a source or equity capital for investment targets that otherwise perhaps cannot raise the money. Hence the valuation should be going downwards and investors' dollar could go for 'a mile longer'. But if only this would be so simple.

Say that investors understand the risks and are happy how BGIF is structured – hence providing funds for further use as envisaged in investment prospect. Land is purchased at a favorable price but lack of international investors with sufficient interest in Bulgaria, additionally scared about corruption and weak regulatory framework, fail to bring various renewable energy projects to fruition, ie operational stage. So the fund and investors are stuck with the land which has over time perhaps appreciated in value somewhat, but because of continuous problems of local investors and local industry players with access to capital and general

illiquidity, these assets cannot be sold and their book value cannot be realized within a reasonable timeframe.

On a more positive note, some of the higher competitive scores indicate solid health status and primary education levels of the Bulgarian nation, macro-economic stability (clearly on the rise ever since the country joined the EU), and labor market efficiency (easily accessible pool of relatively educated labor). Average scores such as financial market sophistication, higher education and training and goods market efficiency also suggest a positive emphasis on some of the key aspects of national competitiveness pillars and at least a national strive to move forward.

Therefore, as all of these competitiveness pillars are interrelated, the overall competitiveness picture is mixed but it does suggest a small, tangible progress when compared with Bulgaria in early transition days after the demise of former Soviet Union and COMECON bloc. When looking into risks inherent to considering Bulgaria as an overall investment target, based on its competitiveness status, perhaps general perception may be rather negative but when put in a regional CEE perspective and EU perspective these risks may be manageable in a right structure and itself should not be seen as the main reason for considering against investments in the Bulgarian economy, renewable energy sector or indeed a specific venture capital / private equity fund.

### **3.3 Bulgaria's energy sector**

Here is what EBRD Renewable Energy Initiative suggested about the current state of affairs in the Bulgarian energy sector<sup>11</sup>:

'Currently there is about 12,668 MW of installed capacity in Bulgaria, including thermal, nuclear and hydroelectric resources. Despite the current excess of capacity, Bulgaria is actively seeking outside investment to expand because 40 percent of the current generation is to be retired by 2010. Bulgaria also imports over 70 percent of the fuel required for energy production and is interested in developing indigenous resources. On January 1, 2002, Bulgaria passed the Ordinance on Setting and Applying Prices and Rates of Electric Energy. This is a significant incentive that requires transmission and distribution enterprises to purchase

<sup>11</sup> Source: EBRD Renewable energy initiative 2010, [www.ebrdrenewables.com](http://www.ebrdrenewables.com)



## Master Thesis

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Renewable Energy in Central & Eastern Europe

renewable power at preferential rates. A system of Green Certificates combined with base tariffs was planned to replace the current system by 2007. As part of their obligation to the European Union, Bulgaria will have 11 percent of their gross electricity consumption generated from RES by 2010.

**Except for solar**, Bulgaria has very promising renewable development opportunities. Bulgaria is one of the top countries identified for wind energy development (3,400 MW mid term potential).(…)Considering that approximately 90 percent of the country's land is arable, agricultural land, or forests, the potential for the development of biomass projects looks promising with about 3,400 MWe of technical potential identified. The Bulgarian government believes that in upcoming years there will be great interests on the part of investors in the field of hydroelectric power, specifically small and micro hydropower plant projects.(…) **Although Bulgaria resides in an area with medium solar insulation the current low cost of heat and electricity may make the overall capital cost of solar energy uneconomic.'**

Table 6: Bulgaria's energy balance

Year	2004	2005	2006	2007
Gross domestic energy consumption (1000 toe)	19,017	20,137	20,637	20,163
Primary energy generation production (1000 toe)	10,271	10,539	11,011	9,738
Energy dependency	46%	47.7%	46.6%	51.7%
Final energy consumption (1000 toe)	8,907	9,276	9,722	9,528

Source: NSI, 2008.

### 3.4 Bulgaria's high electricity production per capita and nuclear power generation capacity

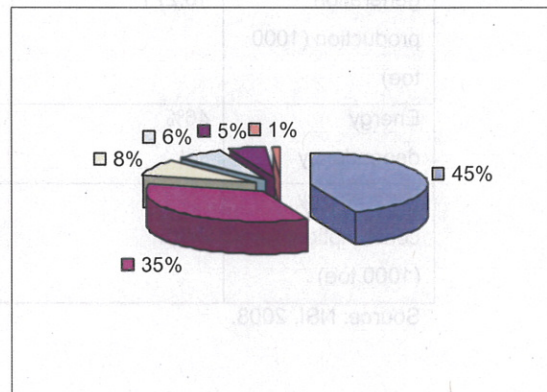
Although Bulgaria has relatively few reserves of natural fuels, in terms of electricity production per capita, it ranks fourth in Eastern Europe. The gross electricity generation was 45 TWh, which was with 4.3% less than the production in 2007<sup>12</sup>.

Heat power plant using coal dominate in the structure of electric power generation, followed by an active nuclear industry -- the only Bulgarian nuclear power plant operates in the vicinity of Kozloduy, and has a total capacity of 3,760 MW. Construction of a second nuclear power plant has started near Belene with a projected capacity of 2,000 MW. Thermal power plants (TPPs) provide a significant amount of energy, with most of the capacity concentrated in the Maritsa Iztok Complex.

Recently there has been a steady increase in electricity production from renewable energy sources such as wind and solar power. Due to the abundance of forests and agricultural land, biomass can provide a viable source of electricity. Wind energy has large-scale prospects, with up to 3,400 MW of installed capacity potential. As of 2009 Bulgaria operates more than 70 wind turbines with a total capacity of 112.6 MW, and plans to increase their number nearly threefold to reach a total capacity of 300 MW in 2010.

Graph 3: State of Electric power  
Gross Production  
by types of power Plants (2008.)<sup>13</sup>

Hydro power Plants	45%
Nuclear Power Plant	35%
Factor Heat Power Plant	8.3%
Renewable Energy Sources	6.4%
Heat production and Supply PP	5.3%
Pumped storage Power Station	1.2%



<sup>12</sup> Source: Bulletin on the State and Development of the Energy in Bulgaria, March 2009.

## Master Thesis

MSc Program  
Renewable Energy in Central & Eastern Europe

Many argue that Bulgaria has rather limited hydro-potential of the country (excluding the Danube). Bulgaria currently, as of 2009, has 87 hydro power plants with a combined capacity of 1,980 MW, most of them being located in the southern and south-western mountainous parts of Bulgaria. The largest Hydro Cascades are: "Belmeken-Sestrimo"-700 MW, "Dospat-Vacha"-670 MW, "Batashki Vodnosilov Pat"-220 MW. Important HPPs on the Arda river are: "Kardzhali"-106 MW; "Ivailovgrad" - 104 MW and "Studen Kladenets" - 60 MW. There is €65 million project waiting in pipeline for their modernization. In addition, three major hydroelectric power plants are under construction: "Gorna Arda" - 160 MW; "Sreden Iskar" - 93MW, €60 million; "Tsankov Kamak"-90MW, €220 million.

### 3.5 Bulgarian energy related institutions<sup>14</sup>

**Ministry of Economy and Energy (MEE)** is the state body which conducts the energy policy of the country. Under this name the institution has been known since 2005 after the merger of the Ministry of Economy and the Ministry of Energy and Energy Resources. Energy policy is defined by the Council of Ministers (MC) of Bulgaria and the Ministry of Economy and Energy through the Minister develops and proposes to the Council of Ministers strategic trends and programs for the development of the sector. The Minister implements the functions of owner in regard to the state owned energy companies. (<http://www.mee.government.bg>)

**The State Energy and Water Regulatory Commission (SEWRC)** is an independent state body responsible for the state regulation of the activities in the energy and the water supply and sewerage services. The Commission was established in 1999 under the name State Energy Regulatory Commission. In the energy sector, SEWRC carries out monitoring of the energy markets, prices and licence regulatory control in regards of the activities for generation, transmission and distribution of electric power, transmission and distribution of natural gas, electric power and natural gas trading, generation and transmission of heating energy (<http://www.dker.bg>)

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<sup>14</sup> Ibidem.

## **4 Critical analysis of BGIF and its approach**

This analysis is based on on a Memorandum of Private Placement, published by the Bulgarian Green Investment Fund AD (in further text: BGIF), on May 1st, 2009 in Varna, Bulgaria. Copy of the BGIF Memorandum is enclosed in Appendix 2.

There are quite a few angles from which the analysis of BGIF investment concept and the overall approach can be conducted, starting from a simple 'gut' feeling to more complicated methodologies, but for the sake of fundamentally sound academic analysis for the purpose of this paper we will focus on the three key pillars:

1. what is the investment proposal;
2. how is the proposed investment structured;
3. what are the risks inherent to this proposal and related structure.

### **4.1 Summary of Investment proposal**

Main stated goal of the Fund is structuring and management of investment portfolio amounting to Euro 15.5 million. Investments are planned in development of projects for photovoltaic plants and equity participation in photovoltaic power plants. Time frame for capital raising was scheduled for the period May 1 – November 24, 2009; with an operational timeframe of the fund amounting to 3 years. Planned exit of the investment was perceived to be by direct sale of all asset base or specific listing on Stock Exchange in some of the EU countries, while expected return on investment on annual basis for the period of the existence of the Fund was said to be 45.7%.

### **4.2 Structure of the proposed fund**

BGIF AD is structured as a joint-stock company under the Commerce Act, registered in Bulgaria.

The main activities of the Fund are suggested to be the following:

1. Investing financial assets, that are raised through issuing of shares, in real estate acquisition of ownership and other property rights over the real estate

connected to realization of projects in the area of renewable energy sources, execution of construction activities and improvements with the purpose of providing them for management, leasing, renting or their sale.

2. Acquisition, management, valuation and sale of shares in Bulgarian and foreign associations in the area of renewable energy sources, project management and development of programs connected to adoption of grant financing aimed at production of energy from renewable sources, participation in markets for trade of raw materials and electricity from renewable sources; acquisition, management and sales of bonds, financing of other associations, in which the association takes part; execution of any other activities, for which there is no legal restrictions.
3. The Fund is duly registered in the Registry agency on 20 March, 2009, with identification number 200630428 in Bulgaria, Varna, Saborni 11 Blvd, office 3;
4. As founders the following parties are mentioned: Company for Capital Management, owning directly 481 shares, representing 95.8% of the Fund's capital, 19 individuals / physical persons, each owning exactly 1 share or the 0.2% of the Fund's capital, and one individual / physical person owning exactly 2 shares or 0.4% of the Fund's capital.

### **4.3 Structure of management company**

- The management company is Company for Capital Management, duly registered according to the Bulgarian Commercial Law, represented by Milen Polimenov – Managing Director;
- Annual management fee for the Managing Company (Company for Capital management) is 2.8%, from the Fund's asset value, at 30 June each year;
- Reward for good governance – when profitability of minimum 45% is realized, for the period of the existence of the Fund, the Management Company will receive 15% from the over plus of the realized profit.

### **4.4 Share Capital**

- Amount of the capital: Euro 25,678.-;
- Number of shares: 502 dematerialized shares, that have the right of 1 (one) vote at the General Assembly of the Shareholders;

- Number of the issued and paid shares: all 502 issued shares are entirely when Fund was registered;
- Nominal price of the shares Euro 51.15, for each single share;
- The capital of the BGIF is entirely paid in cash;
- The capital of the BGIF is paid in BGN amounting to 50,200 BGN, as it is recalculated under the exchange rate of the depository bank 1 Euro = 1.955 BGN, is equal to Euro 25,678.-
- The BGIF does not own shares itself;
- The BGIF does not have subsidiary companies;
- In the share capital are not included non financial assets;
- There are no shares that are no part of the Fund capital;
- The Issuer or its subsidiary company did not possess shares from the capital of issuer.

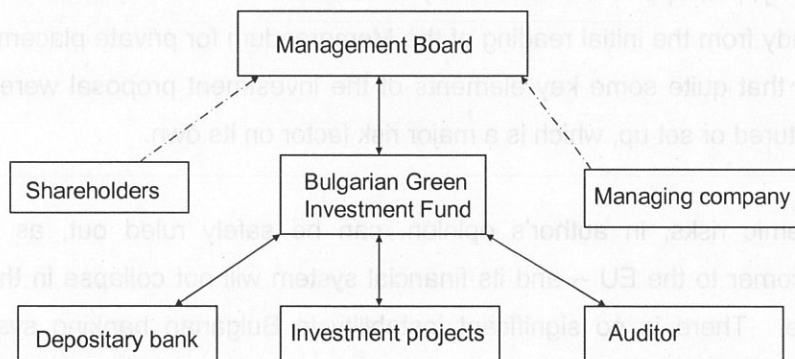
## **4.5 Increase of the share capital**

The Fund plans are to raise the funds that are necessary for its investment goals through initial private placement of shares.

- The amount of the increase is Euro 15.5 million or 303,025 new shares,
- Each new share will be with equal nominal and issuing value of Euro 51.15,
- The minimum participation that any new shareholder could write is minimum Euro 50,026 or 978 shares based on the depository bank's currency rate;
- Increasing of capital is accepted as successful in case minimum 48,875 new shares are placed. In case the planned required sum throughout the capital increase is not raised, the investors are going to decide if the Fund is going to start its investment activity with the already raised funds or to return the funds to shareholders.
- In case higher capital than planned is raised, the shareholders will take a decision where and how to invest the additional funds;
- Purchase of shares in the capital increase process happens after a decision of the Relevant Authority (for legal entities) through bank account opened in the depository bank. When the capital increase is finished and it is registered, all shareholders are given certification for the shares they own.

## 4.6 Envisaged Structure of the Fund

Graph 4: Structure of the BGIF



Main activities of the fund as described in the Memorandum for private placement is investing monetary funds, raised through issuing shares, in diversified investment portfolio consisted of projects that meet the following criteria:

- a) investment in the field of renewable energy sources
- b) investments with low risk level

The main goal regarding the investment activity of the Fund is oriented towards increase in the market value of its assets, along with preservation and increase in the value of the own capital. In details, the investment goals of the Fund are:

- a) Increase in the market values of its assets;
- b) Preparing projects for photovoltaic power plants;
- c) Full development of working photovoltaic power plants;
- d) Ensuring strong and experienced international partners in the field of renewable energy sources when realization of the projects of the Fund;
- e) Realization of incomes in exit of investments through sale of the projects and developed capacities in the end of period of the Fund's existence or through listing on Stock Exchange Market.

## 4.7 Risk analysis

### 4.7.1 Investor's wisdom

Before entering academically somewhat a touch more structured overview of both systemic and non-systemic risks, given author's experience within the investment industry, perhaps some introductory remarks to the risk analysis of the BGIF.

Already from the initial reading of the Memorandum for private placement it became clear that quite some key elements of the investment proposal were not optimally structured or set up, which is a major risk factor on its own.

Systemic risks, in author's opinion, can be safely ruled out, as Bulgaria -- a newcomer to the EU -- and its financial system will not collapse in the foreseeable future. There is no significant instability in Bulgarian banking system and any potential shocks to the system can be dealt with within larger EU system, and related well established systemic risk control framework (which nota bene withstood significant crisis caused by the Greek government spiralling if not uncontrollable debt in 2010). Grade of systemic risk to this project is low.

Non-systemic risks are a different ball game altogether, especially in the emerging market of Bulgaria and the proposed investment project. These may be largely affected by any sudden changes in political and institutional reforms, company and/or investment laws, the level of subsidies that might or might not be given to the landowners, the fiscal grip that may or may not affect the landowners and thereafter project cycle ending with PV plants being built and operational. However, given the already identified or, in further text, to be identified significant structural problems in setting up the envisaged Fund on the wrong premises, the grade of non-systemic risks to this project does not exist as simply Fund would never become active nor collect sufficient volume of capital.

However, it is probably relevant for this Thesis to mention that the BGIF Memorandum for Private Placement mentions (pages 27 and 28) the following risks:

- a) Technological Risks
- b) Risks associated with the character of the primary energy source
- c) Business Risks
- d) Risk of connecting the national energy network (Electricity distribution companies or National Electric Company)



e) Regulatory Risks

As the further analysis will indicate, BGIF is a speculative vehicle that tried to take advantage of low prices of agricultural land with best solar radiation in Bulgaria coupled with a positive regulatory outlook to solar energy tariffication. Therefore, the author recognises no value in indicating any technological, RES or electricity distribution access type of risks as these are not relevant for the analytical focus nor potential investment. What certainly has been relevant are significant business risks (due to wrong modeling approach and concept of the BGIF) and regulatory risks (due to any possible regulatory shifts affecting outlook and tariffication of the PV industry in Bulgaria).

Final conclusion on risks is simple: primarily business risks imposed by overly crude and simplistic envisaged structure of the BGIF are overly prohibitive to consider any investment in this problematic vehicle.

## **5 Key concerns: leading to negative conclusion – why the BGIF approach does not work**

### **5.1 Why to avoid hasty conclusion**

It is only natural that the author of this Thesis may have taken a shortcut to the conclusion and simply state that the BGIF management team tried to cut itself a pretty good deal: for Euro 25,000 worth of own investment into temporarily worthless shares of the management company, they would perhaps, provisionally at least, be able to get out with Euro 1.25 million in management fees only. This would make for an exceptionally good return after a few years of work on this small volume Fund of a limited scope.

And the professionally sound reaction to such a potential wealth creation for specific individuals signing this venture capital concept should have been full acceptance,

**but** under the one and only key condition: that the both perceived and real *value added* of the management team to other (external) shareholders and investors (in terms of quality of the overall fund management, tangibly materialized financial returns and above all proper approach to and execution of risk management) would have been / should have been significant. Unfortunately, nothing could be further from the truth, which is why probably why the project concept was doomed from the very start and the reason that the fund did not move further from issuing a Memorandum for Private Placement, popularly called prospectus, and communicating to a great deal of potential institutional and private investors. The author therefore wishes to address key areas of concerns in BGIF structuring that would certainly, and probably did, caught the eye of any serious in-depth analysis or due diligence by potential investors.

## **5.2 Analysis**

Whilst relatively poorly structured and inadequately written prospectus document could easily be dissected centimeter by centimeter, for the purpose of this Thesis author wishes to

- underline most obvious structural deficiencies in approach to developing this Fund
- with a purpose of optimal building upon various lessons to be learned for future attempts to couple venture capital concept with the funding needs of renewable energy in emerging markets of Central & Eastern Europe;
- And tie this key findings in a summary and, as the author hopes, systematically qualified conclusion about the BGIF and its fate, forming some of the final findings of this Thesis.

### **5.2.1 Timeframe defficiency**

The proposed timeframe for pooling investors to a fund was set up extremely optimistic, indicating either a complete lack of seriousness in approach or hastiness to gather liquidity. In both cases, red flags of warnings or at least proper explanation to potential investors should have been indicated in all communication, but it was not. Finally, in equally amateristic approach, envisaged life span of the Fund of only

three years seemed right from the start of analysis completely ludicrous and unquestionably too short.

### **5.2.2 Portfolio structure defficiency**

The envisaged investment structure does not comprise of portfolio of investments in any classical sense, designed to disperse the risks and potentially develop to counter-cyclical investment sequence, with a bit of proper determination towards different asset classes. Hence, easy conclusion is that the BGIF offers no sophistication whatsoever in its crude and inelastic investment structure.

### **5.2.3 Envisaged financial returns unrealistic**

The envisaged anual return of 45% is a fairy-tale type of promise to even an untrained observer and raises serious numbers of structural and risks related questions. Usually, the risk-reward relations are material for doctoral disertations whilst the common knowledge suggest that the mutual relation suggests the higher expected return the higher is the risk. So a carefully designed and a well though though investment document would spend pages and pages of materialy documented explanation why this management team thinks to have an unique approach so optimaly balanced to achieve such a high return. But again, the BGIF document does not do that, which is the significant factor that does add far more question marks to the validity of even most basic investment assumptions in their prospectus.

### **5.2.4 Legal structure open to questions**

Most obvious legal issues to be raised is mutual relationship between individual partners, whether and how interdependent it is. Another question to be asked is why is the management company initially holding as much as 95.6% of shares. On the other hand, it would seem that the legal structure side of issues is least worysome in the whole string of problems and unresolved challenges of the BGIF and the proposed investment concept.

## 5.2.5 Doubtful investment policy

Crunch really comes when investigating BGIF's intended investment policy, as it suggests:

'Bulgarian Green Investment Fund's <sup>15</sup>main activity is investing monetary funds, raised through issuing shares, in diversified investment portfolio consisted of projects that meet the following criteria:

- Investment in the field of renewable energy sources
- Investment with low risk level

The main goal regarding the investment activity of the Fund is oriented towards increase in the market value of its assets, along with preservation and increase in the value of the own capital. In details, the investment goals of the Fund are:

- Increase in the market values of its assets;
- Preparing projects for photovoltaic power plants;
- Full development of working photovoltaic power plants;
- Ensuring strong and experienced international partners in the field of RES when realization of the projects of the Fund;
- Realization of incomes in exit of investments through sale of the projects and developed capacities at the end of period of the Funds' existence or thorough listing on Stock Exchange Market.'

There are several false or wrongly estimated premises in this vision:

- a) 'investment in the field of RES' is a very broad and in this case incorrect definition, because it would mean consideration for not only PV, but also for example wind, biomass, geothermal energy investments, to name the few. It could also mean that BGIF could consider investing in already well developed hydro energy generation across Bulgaria. So this is clearly misleading.
- b) 'investment with low risk level' statement simply indicated low professional level and immaturity of authors behind the prospectus, as 'low risk' is such a broad and meaningless expression in this context that it truly does not provide any useful information. Low risk from which perspective, how it is defined, how is it sustained, and where in this continuum is a high risk area, etc.

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<sup>15</sup> BGIF Memorandum for Private Placement, May 2009, page 15

c) If we paraphrase: 'the investment goals of the Fund are(...)preparing PV projects(...)full development of working PV projects(...)ensuring strong and experienced international partners(....)realization of incomes in exit(...)through sale of the projects and developed capacities(...)or through listing on Stock Exchange Market, we can rightly conclude about poor preparedness, certain see-through shallowness, of very broad and intangible investment goals. Considering that the approach (let us not call it a strategy) is to basically buy cheap agricultural land in areas with potentially strongest solar radiation in Bulgaria, change the land designation and then hope that strategic investors from PV industries will join the BGIF lead and co-invest significant amount of capital, this can be considered as major weakness in goal setting. Alternative to this approach is to buy land and wait for its appreciation before selling it again. Judgement call on the whole script must be a negative one. Investors to BGIF would largely prefer much more certainties with respect to committed PV investors and/or prepared PV projects with proper feasibility studies and due diligence. In addition, proposed timeframe is way too short to prepare and execute these transactions.

### **5.2.6 Financial forecasting for the Funds' activities**

In a completely simplistic approach to financial forecasting, main assumptions were made in 'integrated model of prognosis'<sup>16</sup> suggesting Euro 14.75 million of investments in the first year and Euro 14.13 million investments in the second year. As the total volume of the fund is Euro 15.5 million and total envisaged investment in two years Euro 28.88 million it is clear that there is going to be a shortfall of funds, unless income is generated already after the first year of operations.

So that is exactly what income projection is suggesting. Projected income from sale of properties / sold parcels for development of PV power plants in the course of the second year is Euro 15.84 million and at the end of the third year is Euro 38.8 million. Third year income is split on Euro 6.3 million as income coming from sale of properties and as much as Euro 32.5 million as incomes from sale of realized projects in the solar energy.

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<sup>16</sup> BGIF Memorandum for Private Placement, page 31

As a conclusion, BGIF offers forecasted dividend and profitability estimations as minimal free cash at the end of Year 1 and 2 and no cash at all at the end of Year 3, but suggests LT asset value at the end of Year 1 to be Euro 14.75 million, at the end of Year 2 to be Euro 25.8 million and finally 0 at the end of Year 3, due to projected dividend pay out of Euro 35.56 million. On that basis cumulative profitability is claimed to be 137.1% and total average annual profitability for the period of 3 years 45.69%.

'The fact that in the third year the Fund will end its activities with the sale of all its assets and distribute the financial result as dividend payments, these dividend payments will also have a character of a liquidation share of the Fund.'<sup>17</sup>

But investors will very likely never get to this point.

### **5.3 Negative Conclusion: BGIF proposed structure and approach does not work**

Well, even if the author of this Thesis strongly considers putting aside a great deal of professional inconsistencies and mistakes, wrong assumptions, shallow and inadequate risk analysis and generally very amateuristic output of the lead BGIF document, the prospectus we referred to, 'Memorandum for Private Placement', the key fact leading to a negative conclusion still remain intact, as it follows:

1. The BGIF is in fact investment vehicle that proposes real estate / land acquisitions investment strategy with a completely uncertain outcome, as neither land price appreciation nor feasible PV development projects are properly tested, guaranteed or secured. The BGIF is not an investment vehicle for renewable energy projects;
2. The BGIF structure and its management team do not offer any tangible relation to the Bulgarian renewable energy sector, nor any tangible and/or on-going investment RES projects;
3. The BGIF proposed management team does not provide any evidence of specific investment, transaction or professional experience in renewable energy sector or venture capital activities related somehow to RES;

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<sup>17</sup> BGIF Memorandum for Private Placement, page 35

4. There is no evidence to any commitment or even an simple expression of interest of a strategic investor from the RES sector or a producer / supplier of PV equipment to the proposed string of potential PV development projects.
5. There is no evidence that there will be parties interested to co-invest a minimal volume of Euro 22.5 million nor that credits will be secured from 'a foreign bank' to the amount of no less than Euro 135 million.

Therefore, at any level of analysis BGIF proves to be poorly structured, unfocused, risky, unprofessional and above all a proposed investment vehicle that offers a potential for deception behind its supposed 'green' label and renewable energy orientation.

## **6 Summary and Lessons to be learned**

There is a point perhaps in each academic article, or in this case Thesis, where the author want to bring the most powerful message accross, the very reason that motivated her or him in diseminatin his research and findings. So the thrill in this context is perhaps to try and summarize potentially significant wider implications with respect to

- financing challenges of renewable energy projects in Bulgaria and possibly similar CEE markets;
- the role that might be played by venture capital providers in these complexities.

### **6.1 Basic considerations for financing of RES and/or PV projects in Bulgaria and CEE emerging markets**

As the author of this Thesis worked in senior financing capacities of several financing institutions and investment boutiques and had the privilege to look into

various financing proposals or loan applications for RES projects, some of common findings in terms of RES financing he found useful have been the following:

1. each of RES categories / sub-sectors, such as wind energy, solar energy, biomass energy, solid waste to energy, hydro-energy, etc, have their own specific caveats when it comes to financing structure, risk assessment and envisaged financial returns. Even more so when these projects are being developed within the CEE emerging markets.
2. Generally speaking, provided that proper technical data and especially trusted and reliable wind measurement data, coupled with sufficient all-round feasibility study and range of expertise, plus all-inclusive permitting framework, are in order, wind energy development projects have become main stream financing projects for RES development in the CEE.
3. Next to wind projects, biomass development projects are gradually taking hold in, naturally, biomass rich countries of the CEE region, notably Hungary, Romania and countries of former Yugoslavia. Although these project & financing complexities are perhaps less heavily structured than when compared with wind financing, biomass energy drivers and therefore related project and financial risks are more heavily accented on issues such as: quality and availability of biomass fuel, stability and sustainability of offtake contracts for generated electricity and (especially) heating.
4. Solar energy, contrary to the developed EU countries such as Germany and Spain, does not take a very fast hold in the CEE markets nor there is any major surge of solar and/or PV financing projects. There is a positive development for PV instalations in Czech Republic and Slovakia as regulatory environment and tax incentives are becoming as attractive as in more mature EU markets, but neither Hungary nor certainly Bulgaria or countries of FYU has so far not follow this lead. In addition, not all countries have favourable solar radiation areas.
5. Solar energy / PV technology costs are amongst more expensive / capital intensive RES investments to be made and are therefore directly and very strongly influenced, the autor would argue much more than other RES sub-sectors, by a combination of a regulatory regime and its stability / sustainability, availability of specific technological range of solutions, access to capital and finance, fiscal environment and finally the state of housing / real estate development (and availability of energy efficient design and solutions).



## Master Thesis

MSc Program  
Renewable Energy in Central & Eastern Europe

6. And last but not least, as indicated in this Thesis, PV generated electricity is generally more expensive than when generated from other sources and as long as there are cheaper available alternatives, especially in countries such as Bulgaria with less developed regulatory regimes and perhaps less acute environmental awareness, PV development and hence investments will be delayed.

Therefore, basic considerations should perhaps ensure that:

- Market forces alone nor access to capital or finance may not be enough to ensure high quality RES deployment, especially for more expensive technologies, such as PV / solar
- Deployment incentives need to be combined with R&D initiatives and supply chain investments, which is difficult to do in developing countries such as Bulgaria;
- What is the core investor RES road map in a specific country and how well it is structured is the key question to understand before embarking on any decision making with respect to financial commitment to any RES project
- Feed In Laws are generally more cost effective than any quota system
- Combination of different policies is required rather than using a single policy
- There should be a long term, predictable policy support
- The use and adaptation of local (capital) markets is required

## **6.2 Potential Role for venture capital providers in RES projects**

What appeared to be most recent global trends in sustainable energy investment (2008 - 2009), as claimed by some of UNEP research<sup>18</sup>?

'For a start, 2008 was a first year that new power generation investment in renewables was greater than investment in fossil-fueled technologies. Due to economic downturn, new investment in sustainable energy was US\$ 155 billion in 2008, slightly (5%) higher than 2007's US\$ 148 billion.

But more importantly, in 2008, venture capital and private equity funds invested US\$ 19.3 billion in renewable energy and energy efficiency firms, what is an increase of 43% compared with 2007. Of this, according to the referenced report, US\$ 13.5 billion represented 'new' money – everything except private equity buy-outs – an improvement of 37% on the US\$ 9.8 billion of fresh investment in 2007.'

Just when perhaps the author wanted to suggest absolute caution when pairing venture / equity capital providers, the facts from the market are drawing a different picture, as globally seen the US is leading the major renewal of venture capital and equity capital funders to RES sector.

Europe, and especially CEE emerging markets, are painting though a different picture. European Investment Bank (EIB) estimates<sup>19</sup> that under well know IEA reference scenario urban energy consumption is projected to increase twice the current rate of the EU as a whole, knowing very well that these urban areas already account for about 70% of the total primary energy demand. Therefore substantial

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<sup>18</sup> Global Trends in Sustainable Energy Investment 2009: Analysis of Trends and Issues in the Financing of Renewable Energy and Energy Efficiency, UNEP, SEFI, New Energy Finance, Geneva, 2009.

<sup>19</sup> Goldmann, Ralf, EIB, The Elena Facility presentation, 3 February, 2009, Brussels.

## Master Thesis

MSc Program  
Renewable Energy in Central & Eastern Europe

investments amounting to about Euro 700 billion in both energy efficiency (in further text: EE) and RES are needed to meet the EU 2020 renewable energy targets<sup>20</sup>.

However, 'in the current financial perspective 2007-2013, EU funds for EE/RES across the EU-27 account for only EUR 9 billion euro, less than 3 percent of the total EU Structural Funds. In the new member states this figure is 4.2 billion (approximately 2.4 percent). Considering also the weak share of RES investments in direct EU budget spending as part of the Recovery Plan (just EUR 500 million), the allocations for RES/EE from the EU funds are now even more vital. The political commitment towards a low carbon future and green jobs must be financially supported by an allocation of at least 15 percent allocation from the EU funds for EE/RES. For our countries facing an economic crisis, EE/RES measures will reap numerous benefits for regional development, securing energy independence, job creation, business opportunities, reducing energy bills and curbing CO2 emissions. Without concrete action plans for the stimulation of RES/EE investment from EU funding sources, the investment potential in these vital areas cannot materialise by 2020'.<sup>21</sup>

Without the need to deliberate further on specific EU policy matters on RES for the purpose of this Thesis, it remains very clear that, unlike USA, there is no significant role left for venture capital / private equity providers in neither old nor 'new' Europe, given the large scale of required investments, mostly public sector involvement and a combination of public money / subsidies with commercial loans to mainly public sector and municipalities from development banks such as the EIB.

Furthermore, the author would like to draw more on findings of the two key referenced academic titles and their authors, from the paragraph 1.3, page 2 of this Thesis.

Karolin Sjöo argues that despite great emergency, due to climate change, to speed up the development, commercialization and diffusion of renewable energy technologies, new technology based firms (in further text: NTBFs) have severe

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<sup>20</sup> These are the well known '20-20-20' EU Initiative objectives in terms of reducing greenhouse gas emissions, increasing the share of RES in energy consumption and improving energy efficiency.

<sup>21</sup> CEE Bankwatch network, March 13, 2009. [www.bankwatch.org](http://www.bankwatch.org)

difficulties in getting access to sufficient growth capital. Therefore, she concludes, the traditional capital market's failure to provide finance has made venture capital a sine qua non of innovations in such firms. Being a lever, she says, of innovation and thus central to the issue of climate change, better understanding of what influences venture capital investments in renewable energy technologies is crucial<sup>22</sup>.

Tarja Teppo and Rolf Wuestenhagen, on the other hand, indicate that many well known energy companies first encouraged and then discontinued their activities with their own corporate venture capital companies, which were originally committed to new energy technologies, including RES. However, these two authors concluded that parent firm organizational culture, organisational decision making practices, managing and measuring success and CVC fund survival were the key factors contributing to this „sudden death syndrome'. In short, parent firms by and large failed to recognise fast moving competitive environment undergoing a change<sup>23</sup>.

All of this is perhaps leading to far reaching conclusion whose avenues still remain to be explored: venture capital / equity capital concept matches perhaps much better with RES technology companies than stand alone RES projects, and presumably even more so in the case of emerging markets where the whole range of risks increases when compared to mature markets. There are many dimensions of a poor fit between VC providers and stand alone RES projects, but primarily RES projects are larger scale, often involving public partners and heavily reliant on regulatory environment rather than market forces. VC providers like smaller, more focused, overseeable projects with individuals and private partners that offer significant growth opportunities.

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<sup>22</sup> Sjøo, Karolin: 'The Influence of Uncertainty on Venture Capital Investments in renewable Energy Technology: an exploratory study', abstract, University of Oslo / Lund University, 2007/2008.

<sup>23</sup> Teppo, T. and Wuestenhagen, R.: Why Corporate Venture Capital Funds Fail – Evidence from the European Energy Industry, International Journal of Entrepreneurship and Innovation Management, 2007.

# 7 APPENDIX I

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## **8 APPENDIX II**

**Bulgarian Green Investment Fund:**

**Memorandum of Private Placement**

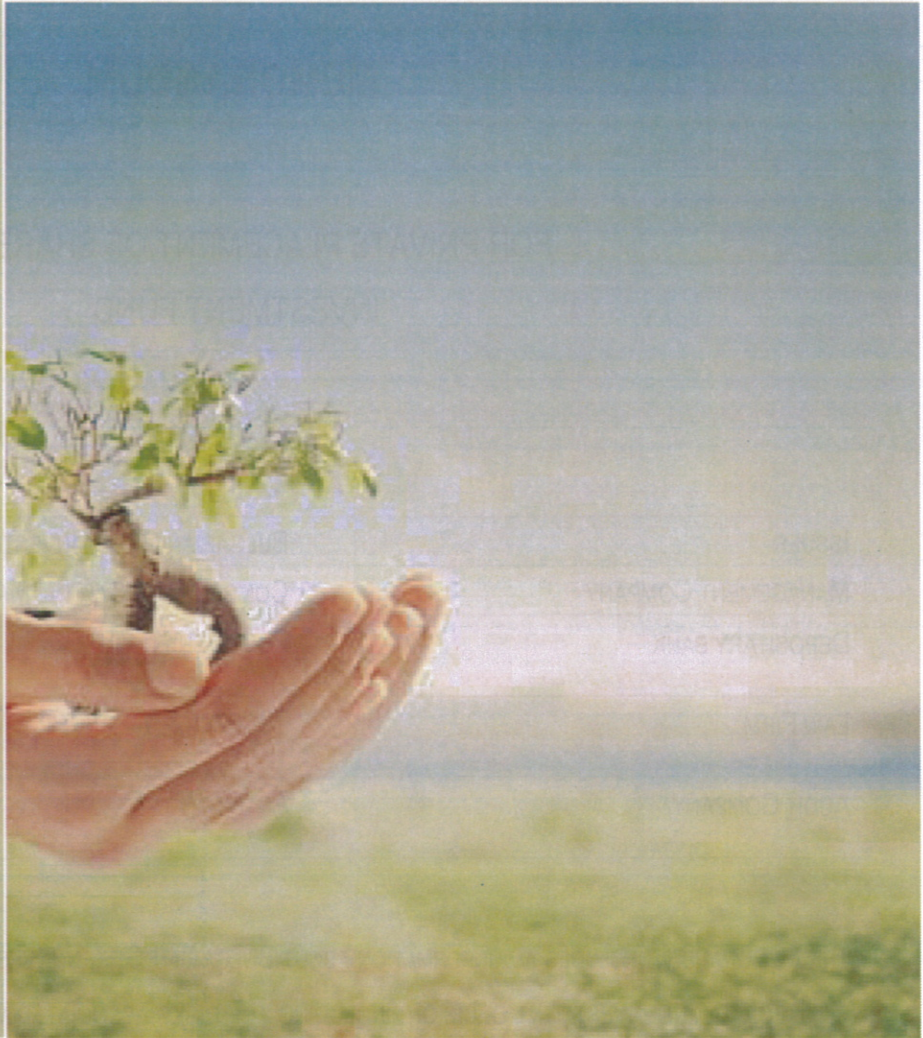
**Varna, Bulgaria, May 2009**





**Memorandum – Bulgarian Green  
Investment Fund**

**May 2009**



BEFORE DECIDING TO INVEST THE INVESTORS SHOULD BECOME ACQUAINT WITH THIS MEMORANDUM

MEMBERS OF THE BOARD OF DIRECTORS OF THE ISSUER AND COMPANY FOR CAPITAL MANAGEMENT AS A MANAGEMENT COMPANY ARE BEARING JOINTLY RESPONSIBILITY FOR DAMAGES CAUSED BY INACCURATE, MISLEADING OR INCOMPLETE INFORMATION IN THIS MEMORANDUM

VARNA

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## MEMORANDUM

### FOR PRIVATE PLACEMENT OF SHARES OF INVESTMENT FUND

ISSUER	BULGARIAN GREEN INVESTMENT FUND AD
MANAGEMENT COMPANY	COMPANY FOR CAPITAL MANAGEMENT
DEPOSITARY BANK	POST BANK
LAW FIRM	TOCHEVA & MANDAZHIEVA
AUDIT COMPANY	ACTIV

THE MEMORANDUM INCLUDES ALL INFORMATION ABOUT BULGARIAN GREEN INVESTMENT FUND AD, WHICH IS NECESSARY FOR TAKING INVESTMENT DECISION, INCLUDING THE RISKS ASSOCIATED WITH THE FUND AND ITS ACTIVITIES. BEFORE DECIDING TO INVEST THE INVESTORS SHOULD BECOME ACQUAINT WITH THIS MEMORANDUM.

MEMBERS OF THE BOARD OF DIRECTORS OF THE ISSUER AND COMPANY FOR CAPITAL MANAGEMENT AS A MANAGEMENT COMPANY ARE BEARING JOINTLY RESPONSIBILITY FOR DAMAGES, CAUSED BY INACCURATE, MISLEADING OR INCOMPLETE INFORMATION IN THIS MEMORANDUM.

1<sup>ST</sup> MAY 2009

**CONTENT**

<b>1. SUMMARY</b> .....	<b>6</b>
<b>2. RESPONSIBLE PARTIES</b> .....	<b>7</b>
2.1. RESPONSIBLE FOR THE PREPARATION OF THE MEMORANDUM .....	7
2.2. DECLARATION FROM THE PERSONS RESPONSIBLE FOR THE PREPARATION OF THE MEMORANDUM .....	7
<b>3. INFORMATION ABOUT THE DEPOSITARY BANK</b> .....	<b>8</b>
<b>4. INFORMATION ABOUT THE LAW FIRM</b> .....	<b>9</b>
<b>5. INFORMATION ABOUT THE AUDIT COMPANY</b> .....	<b>10</b>
<b>6. ISSUER INFORMATION</b> .....	<b>11</b>
6.1. HISTORY AND DEVELOPMENT OF THE FUND .....	11
6.2. MANAGEMENT COMPANY .....	12
6.3. BOARD OF DIRECTORS OF BULGARIAN GREEN INVESTMENT FUND .....	12
6.4. SHARE CAPITAL .....	13
6.5. INCREASE OF THE SHARE CAPITAL .....	13
6.6. STRUCTURE OF THE FUND .....	14
<b>7. INVESTMENT POLICY</b> .....	<b>15</b>
7.1. MAIN ACTIVITIES .....	15
7.2. INVESTMENT ENVIRONMENT .....	15
7.2.1. PRECONDITIONS FOR INVESTING IN BULGARIA: .....	15
7.2.2. RENEWABLE ENERGY SOURCES .....	16
7.2.3. PRECONDITIONS FOR INVESTING IN THE RENEWABLE ENERGY SECTOR IN BULGARIA .....	18
7.3. LEGISLATION .....	19
7.3.1. EUROPEAN LEGISLATION .....	19
7.3.2. BULGARIAN LEGISLATION .....	19
7.3.3. FORMING THE PRICE OF THE ELECTRICITY PRODUCED BY PHOTOVOLTAIC POWER PLANTS .....	20
7.4. DEVELOPMENT OF PROJECTS IN THE FIELD OF SOLAR ENERGY .....	22
7.5. STAGES OF THE INVESTMENT PROCESS FOR PHOTOVOLTAIC POWER PLANTS: .....	22
7.5.1. ACQUISITION OF LAND AND CHANGING THE LAND DESIGNATION (STAGE I - FIRST YEAR) .....	23
7.5.2. DEVELOPMENT PROJECT (STAGE II - SECOND YEAR) .....	23
7.5.3. SUMMARY FOR EXIT OF THE INVESTMENTS (SECOND AND THIRD YEAR) .....	24
7.6. PROJECTS THAT THE FUND WILL DEVELOP FOR ITS INVESTMENT PROGRAM .....	25
<b>8. RISKS</b> .....	<b>27</b>
8.1. SPECIFIC RISKS RELATED WITH THE PROJECT INVESTMENT IN FIELD OF RES .....	27
8.2. COMMON (SYSTEMATICAL) RISKS .....	28
A) CREDIT RISK .....	28
B) POLITICAL RISK .....	29
C) RISK OF SLOWDOWN IN ECONOMIC GROWTH .....	29
D) INFLATIONARY RISK .....	30
E) CURRENCY RISK .....	30
E) OTHER SYSTEMATICAL RISKS .....	30
<b>9. FINANCIAL FORECASTS FOR THE ACTIVITIES OF THE FUND</b> .....	<b>31</b>
9.1. MAIN ASSUMPTIONS .....	31
9.2. BASE FOR THE FORECASTS .....	32
9.3. INVESTMENTS .....	33
9.4. INCOMES .....	33
9.5. EXPENSES .....	34
9.6. CASH FLOW .....	34
9.7. FORECASTED DIVIDENT AND PROFITABILITY .....	35

INVESTORS INTERESTED IN THE OFFERED SHARES MAY OBTAIN A FREE COPY OF THE MEMORANDUM AND ADDITIONAL INFORMATION, PERSONALLY VIA THEIR E-MAIL ADDRESS ANY WORKING DAY BETWEEN 9:00 AND 18:00 PM ON THE ADDRESS OF BULGARIAN GREEN INVESTMENT FUND AD

VARNA

„SABORNI” BUL., 11, OFFICE 3

CONTACT PERSON: MR. MILEN POLIMENOV

PHONE: (+359 52) 91 90 45

E-MAIL: [office@bgif.eu](mailto:office@bgif.eu)

BULGARIAN GREEN INVESTMENT FUND AD WARNS THE INVESTORS THAT INVESTMENT IN SHARES IS ASSOCIATED WITH CERTAIN RISKS. SPECIFIC ACTIVITY OF THE FUND RISK FACTORS ARE DESCRIBED IN DETAILS IN SECTION 8, P. 27-31 OF THIS MEMORANDUM.

**USED ABBREVIATIONS:**

BGIF	BULGARIAN GREEN INVESTMENT FUND AD
BNB	BULGARIAN NATIONAL BANK
EC	EUROPEAN COMMISSION
EU	EUROPEAN UNION
EE	ENERGY EFFICIENCY
EDC	ELECTRICITY DISTRIBUTION COMPANIES
GDP	GROSS DOMESTIC PRODUCT
JSC	JOINT STOCK COMPANY
LLC	LIMITED LIABILITY COMPANY
NEC	NATIONAL ELECTRIC COMPANY
NATO	NORTH ATLANTIC TREATY ORGANIZATION
RES	RENEWABLE ENERGY SOURCES
SJ	STATE JOURNAL
SEWRC	STATE WATER AND ENERGY REGULATORY COMMISSION
UN	UNITED NATIONS
DCA	DECARE (1 DECARE = 1000 M <sup>2</sup> )
KWH	KILOWATT HOUR
MWH	MEGAWATT HOUR

## 1. SUMMARY

The current world financial crisis has two main consequences – decrease in liquidity in the world and decrease in the new investments. The relocation of the cash resources and their direction to profitable investments is limited, which leads to overseeing of potentially profitable opportunities.

In 2009 the effect of the financial crisis is expected to reach at maximum extend the Bulgarian economy. Mainly, the effect will result in:

- Temporary decrease in prices of the investment properties (they are still the lowest in EU)
- Higher price of attracting financing and temporary freezing a lot of business projects in the field of renewable energy
- Lowering down the enthusiasm of the business concerning the EU Structural funds

Establishment of a Fund for investments in projects for renewable energy sources, particular in photovoltaic power plants, will realize a high return in period of 3 years. Time, long enough for acquiring of assets under conditions of liquidity crisis and their sale, under conditions of stabilized economic environment.

**The following are preconditions ensuring key advantages for investments in renewable energy Bulgaria:**

- Preferential prices for purchase of electricity based on feed-in tariff, ensuring high returns of such kind investments;
- Guaranteed period for obligation purchase of electricity produced by photovoltaic power plants for 25 years;
- Presence of a Currency Board, ensuring stability in the financial system.

**Main characteristics of the investment fund - Bulgarian Green Investment Fund AD**

- Main goal of the Fund is structuring and management of investment portfolio of **15 500 000 EUR**;
- Investments will be in:
  - Development of projects for photovoltaic power plants,
  - Equity participation in photovoltaic power plants.
- Time frame for capital increasing – **1<sup>st</sup> May – 24<sup>th</sup> November 2009**;
- Period of existence of the Fund – **3 years**;
- Exit of the investment by sale of all its assets or listing on Stock Exchange Market in country from the European Union;
- Expected return of investments on annual basis for the period of existence of the Fund – **45,69 %**.

## 2. RESPONSIBLE PARTIES

### 2.1. RESPONSIBLE FOR THE PREPARATION OF THE MEMORANDUM

Preparation of the memorandum is assigned to Tocheva & Mandazhieva - law firm (headquarter and address of management: district of "Lozenets III", "Stoyan Mihailovski" str. 26, fl 2, Sofia, Bulgaria) and Company for Capital Management (in Bulgarian equivalent "Компания за управление на капитал" АД). The following employees and assistants from the above mentioned companies are responsible for the preparation of the registration document:

Roumen Vladimirov Stoilov, Director Investment strategies in Company for Capital Management – for the economic part;

Vladislav Zhelchev Zhelev, Manager International Relations in Company for Capital Management – for the economic part;

Dimitar Antonov Kaldamukov - lawyer in Tocheva & Mandazhieva - Law Firm – for the legal part.

### 2.2. DECLARATION FROM THE PERSONS RESPONSIBLE FOR THE PREPARATION OF THE MEMORANDUM

WITH THE ATTACHED DECLARATIONS TO THIS MEMORANDUM, ABOVE MENTIONED IN P.2.1 PERSONS DECLARE THAT:

(1) THE PREPARATION OF THE PROPER PART OF THE CURRENT MEMORANDUM HAS BEEN DONE WITH THE APPROPRIATE TREATMENT AND

(2) TO THE BEST OF THEIR KNOWLEDGE, THE DATA INCLUDED IN THE PREPARED FROM THEM PART IN THAT MEMORANDUM IS NOT FALSE, MISLEADING OR INCOMPLETE.

MEMBERS TO THE BOARD OF DIRECTORS OF THE FUND, PERSONS, RESPONSIBLE FOR PREPARATION OF THAT DOCUMENT (DETAIL DESCRIBED IN SECTION 2, POINT 2.1 ABOVE) AND THE MANAGEMENT COMPANY COMPANY FOR CAPITAL MANAGEMENT ARE JOINTLY RESPONSIBLE FOR THE DAMAGES, CAUSED BY INACCURATE, MISLEADING OR INCOMPLETE INFORMATION IN THIS DOCUMENT.

### 3. INFORMATION ABOUT THE DEPOSITARY BANK

**Eurobank EFG Bulgaria AD** was created with the legal merger of Bulgarian **Postbank** and DZI Bank in December 2007.

Bulgarian Postbank AD was founded on the 2 April 1991. For the 17 years that followed, the bank experienced substantial growth and expansion. Due to its wise policy, it is one of the few Bulgarian banks that managed to survive the banking crisis in Bulgaria in 1996-1997.

Acquisition of 78.23 % of Postbank's capital by ACBH, property of the Greek Eurobank EFG, on the 9 November 1998. Subsequently, Eurobank EFG's share rose to 99.65% of Postbank's equity capital.

With more than 17 years of successful banking history, Postbank ranks among the leading universal commercial banks in Bulgaria. As of 30 September 2008 the assets amount to 5,54 bln BGN and tend to grow steadily and the share capital of the bank exceeds 500 mln. BGN.

Postbank has one of the most extensive branch networks in the country with more than 220 branches.

The international rating agency Fitch has affirmed a long-term credit rating of BBB+ and a short-term rating of F2 for Postbank. Thus, the bank is among the financial institutions in Bulgaria that have been rated higher by Fitch, which is the outcome of its excellent performance in Bulgaria, as well as of the stable international position of its majority shareholder Eurobank EFG

Postbank has won a number of prestigious accolades. At the beginning of 2009, the Bulgarian Business Leaders Forum designated the bank for Top Investor in Environment for its long-term environmental protection project Crystal Purity of the Pancharevo Lake. In 2008 Postbank has been awarded with the Grand Prize for Innovation and Quality of the Financial Products at the exhibition Banks, Investment, Money and was also granted the award in the Credit Products and Financing category. In the same year, the Bulgarian Hotel and Restaurant Association have granted it with the Best Bank in Tourism accolade. In 2007 the Banker Daily newspaper have distinguished CEO Mr. Anthony Hassiotis as a Banker of the Year. Postbank was also acknowledged as Bank of the Year in the annual awards of Pari Daily newspaper.

As a sign of recognition of our consistent social contribution, the bank became one of the first four financial institutions to be granted a certificate of the Bulgarian Donors' Forum for Biggest Corporate Donor in the Financial Sphere for 2006.

The shareholder structure of Eurobank EFG Bulgaria AD is as follows:

EFG Eurobank Ergasias S.A.– 63,53%

CEH Balkan Holdings Ltd. – 20,53%

EFG New Europe Holding B.V. – 15,61%

Other shareholders – 0.3%



#### 4. INFORMATION ABOUT THE LAW FIRM

Law office **Tocheva & Mandazhieva** is one of the first companies established and registered in accordance with the new requirements for joint law practice set in the operating Law Act.

They have significant experience in advising a number of Bulgarian financial institutions.

The company has advised many Bulgarian financial institutions on a long-term basis. It offers a full package of legal assistance to investment firms and currency dealers, investment trusts and managing companies, Real Estate Investment Trusts (REITs) (they have drafted all documents necessary for their incorporation, licensing, registration and mandatory initial capital increase, and we have represented them before all competent authorities throughout the process).

They prepare sets of documents covering the complete range of transactions with respect to financial instruments in Bulgaria (general terms and conditions of investment firms and managing companies, master agreements for trading in OTC derivative instruments, White Label Partnership Agreements, Introducing Broker agreements, brokerage and asset management agreements, orders and confirmations for securities transactions, all relevant disclosures and declarations required by law, financial collateral agreements).

It also provides advice to banks in the process of structuring the legal framework of new products based on financial instruments and provide legal opinions thereof.

**Tanya Tocheva, Attorney at Law, Partner**, has twelve years of legal experience. After working as an in-house lawyer for Eurobank AD she joined the legal team of KPMG Bulgaria as a senior legal advisor where she remained until August 2004. Mrs. Tocheva has extensive experience in the field of general corporate and banking law, corporate restructuring inclusive and public procurement procedures; she has prepared all kinds of legal due diligence and specialized in project finance. Mrs. Tocheva has completed major projects in the banking, industrial and telecommunications sector, and on the real estates market.

**Zhulieta Mandazhieva, Attorney at Law, Partner**, has seven years of legal experience primarily in the field of securities law and law of financial services (capital markets, public companies, REITs, brokerage and asset management services, transactions in financial instruments). Her law practice started at DIA Consult Law Office where she specialized in the field of general corporate law and law of public companies. Subsequently, she joined the Financial Markets Regulation Project – a joint project of Financial Markets International Inc. and USAID where she took part in the preparation of draft regulations under the Public Offering of Securities Act. Later, Ms. Mandazhieva provided full legal services as an in-house lawyer of Elana (one of the leading and oldest Bulgarian non-banking financial institutions) to its asset managing company in particular. Subsequently, she worked together with BenchMark financial advisers on a number of IPOs, listings, and corporate restructurings.

Some of the clients of the law firm:

- Bulgarian Post Bank
- Bulgarian Association of the License Investment Intermediaries
- Benchmark Fund Estates
- Benchmark Asset Management
- Sofia Airport Center
- Todorov AD

## 5. INFORMATION ABOUT THE AUDIT COMPANY

**Activ Ltd** is established in April 1995, its major business is auditing, financial and accounting consulting, investigations, valuation of assets and liabilities. Company's incorporators were Nadya Kostova and Simeon Simov.

Activ Ltd is registered as specialized auditing company in the Institute of the Certified Public Accountants in 1999 (published in State Gazette No 23/1999).

In partnership with the German Consulting Company ABG, in 2008 was established the Company **ACTIV ABG**, which combines the potential of the two companies: **ACTIV** and **ABG**. **ACTIV ABG** provides complete solutions, obtained through Bulgarian and German expertise characterized by flexibility and accuracy at the same time

In 2008 Activ Ltd. Becomes member of **GGI** (Geneva Group International).

**Nadya Kostova** - Managing Partner in Activ Ltd, registered auditor, certified public accountant, certified lecturer in International Accounting Standards, Associate Professor at the Department of Accounting at the University of Economics - Varna, specialist in the Universities in town of Nottingham - England and Town of Delaware - USA. Holds a license for business estimator of enterprises. Author of publications in the field of accounting policies of the enterprise and economic analysis of its activities. Doctor Dissertation on „Accounting policy of commercial bank”.

**Simeon Simov** - Managing Partner in Activ Ltd., Chemical engineer, graduated from the University Prof. Dr. Assen Zlatarov - Burgas, specialist at University of Economics - Varna and Delaware University - USA, Master Degree in management, holding a license for business estimator of enterprises. Specializes in the management audit. Previous experience as a manager of a fertilizer plant, the Palace of Culture and Sports - Varna, Trade House JSC – Varna.

Some of the clients of the audit company:

- Energomontaj Wind AD
- Water supply and sanitation Vratza Ltd
- Heating Rouse JSC,
- Todorov Plc
- Varna Plod Plc
- Super Borovetz Property Fund REIT
- Varchev Managing Company JSC
- Rodna zemia Holding JSC

## 6. ISSUER INFORMATION

### 6.1. HISTORY AND DEVELOPMENT OF THE FUND

Bulgarian Green Investment Fund AD (mentioned below as the Fund) is a joint-stock company under the Commerce Act, registered in Bulgaria.

The main activities of the Fund are:

(1) Investing financial assets, raised through issuing of shares, in real estate acquisition of ownership and other property rights over the real estate connected to realization of projects in the area of renewable energy sources, execution of construction activities and improvements with the purpose of providing them for management, leasing, renting or their sale.

(2) Acquisition, management, valuation and sale of shares in Bulgarian and foreign associations in the area of renewable energy sources, project management and development of programs connected to adoption of grant financing aimed at production of energy from renewable sources; participation in markets for trade of raw materials and electricity from renewable sources; acquisition, management and sales of bonds; financing of other associations, in which the association takes part; execution of any other activities, for which there is no legal restriction.

The Fund is registered in the Registry agency on 20/03/2009 with identification number 200630428 in Bulgaria, Varna, Saborni 11 Blvd., fl.1, office 3

Founders are the following parties:

- Company for Capital Management, owning directly 481 shares, representing 95.8 % of the Fund's capital;
- Milen Iliev Polimenov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Roumen Vladimirov Stoilov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Genoveva Petrova Popova, owning directly 1 share, representing 0.2% of the Fund's capital;
- Jagsagar Chand, owning directly 1 share, representing 0.2% of the Fund's capital;
- Tsunehiro Kinashi, owning directly 1 share, representing 0.2% of the Fund's capital;
- Masao Suzuki, owning directly 1 share, representing 0.2% of the Fund's capital;
- Plamen Trifonov Trifonov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Plamen Stoyanov Kostadinov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Dimitar Iliev Dimitrova, owning directly 1 share, representing 0.2% of the Fund's capital;
- Ivaylo Nikolov Manov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Trayan Pavlov Linkin, owning directly 1 share, representing 0.2% of the Fund's capital;
- Liliya Stoyanova Mihaylova, owning directly 1 share, representing 0.2% of the Fund's capital;
- Stoyan Georgiev Vasilev, owning directly 1 share, representing 0.2% of the Fund's capital;
- Varban Valeriev Marinov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Nikolay Asenov Anestev, owning directly 2 shares, representing 0.4% of the Fund's capital;
- Velin Kirchev Maystorov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Roumen Petkov Pelovski, owning directly 1 share, representing 0.2% of the Fund's capital;
- Ivaylo Andreev Andreev, owning directly 1 share, representing 0.2% of the Fund's capital;
- Viktor Petrov Petrov, owning directly 1 share, representing 0.2% of the Fund's capital;
- Bogdan Ivanov Stanchev, owning directly 1 share, representing 0.2% of the Fund's capital.

## 6.2 MANAGEMENT COMPANY

- The Management Company is Company for Capital Management, register on 06.03.2008 in the Registry agency, with identification number 200049160, represented by Milen Polimenov – Managing Director;
- Annual management fee for the Managing Company (Company for Capital Management) is 2.8 %, from the Fund's asset value, at 30-th of June each year;
- Reward for good governance – when profitability of minimum 45% is realized, for the period of the existence of the Fund, the Management Company will receive 15 % from the over plus of the realized profit.

## 6.3. BOARD OF DIRECTORS OF BULGARIAN GREEN INVESTMENT FUND

### MILEN POLIMENOV – MANAGING DIRECTOR OF BULGARIAN GREEN INVESTMENT FUND AD

He is also Chairman of the Board of Directors and shareholder in Company for Capital Management. Since 2006 is manager of the branches of BenchMark Finance in Varna and Burgas. Since 2001 is owner and Executive Director of financial-consulting company Millenium-DK. Manager of branch of Business Bank in the period 1995-1998. Leading a number of business negotiations in Russia, Belgium, Italy, Japan, China, South Korea, Taiwan and others.

Member of AIESEC Alumni International and one of the founders of AIESEC in Bulgaria in 1990.

Professional lecturer in Bulgarian and Russian universities. Master of accounting, graduated University of Economics - Varna. Milen Polimenov graduated Secondary professional school of marine and ocean fishing - Burgas.

### ROUMEN STOILOV – CHAIRMAN OF THE BOARD OF DIRECTORS OF BULGARIAN GREEN INVESTMENT FUND AD

He is also member to the Board of Directors and shareholder in Company for Capital Management. Since January 2008 – general manager ROI Management. Management of projects in the field of SPV - structure, registration, licensing and current management of real estate and special purposed investment projects. Management of capital markets' projects: structuring of stocks and bonds issues, drafting investment projects pertinent to the companies' activities. Since November 2006 is Manager Special Purpose Vehicles Department in Industry Trade Assistance Holding. In the period July 2005 – September 2006 - Head of Investment Banking Department in BenchMark Group.

Graduated engineer and Master degree in Finance. He is licensed estimator of financial assets, institutions and commercial enterprises. Rumen Stoilov has Master degree in electronics, automation and computer systems - Technical University – Sofia and Master degree in Finance from Economic Institute of Bulgarian Academy of Science – Sofia.

### GENOVEVA POPOVA – MEMBER OF THE BOARD OF DIRECTORS OF BULGARIAN GREEN INVESTMENT FUND AD

She is shareholder in Company for Capital Management. She has a long-standing experience in Navigation Maritime Bulgaria JSC. She has experience in sectors "Balance and analysis", "Overseas Companies", "Estimates with agents".

She has participated as a consultant and coordinator in projects to develop specialized software for the shipping.

Master of Accounting, graduated in University of Economics - Varna.

#### 6.4 SHARE CAPITAL

- Amount of the capital: 25 678 (twenty five thousand six hundred and seventy eight) EUR;
- Number of shares: 502 (five hundred and two) shares, dematerialized shares, that give the right of 1 (one) vote at the General Assembly of the Shareholders.
- Number of the issued and paid shares: all 502 (five hundred) issued shares are entirely paid when registration of the Fund;
- Nominal price of the shares: 51.15 (fifty one euro and fifteen euro cent) EUR for each one;
- The capital of Bulgarian Green Investment Fund AD is entirely paid in cash;
- The capital of Bulgarian Green Investment Fund AD is paid in BGN amounting to 50 200 BGN, as it is recalculated under the exchange rate of the depository bank 1 EUR = 1.955 BGN, is equal to 25 678 EUR;
- Bulgarian Green Investment Fund AD doesn't own shares itself;
- Bulgarian Green Investment Fund AD doesn't have subsidiary companies;
- In the share capital are not included non financial assets;
- There are not any shares that are not part of the Fund capital;
- The Issuer or its subsidiary companies did not possess shares from the capital of the issuer.

#### 6.5 INCREASE OF THE SHARE CAPITAL

The Fund plans are to raise the funds that are necessary for its investment goals through initial private placement of shares.

- The amount of the increase is **15 500 000 EUR** or **303 025 new shares**;
- Each new share will be with equal nominal and issuing value of **51.15 EUR** ;
- The minimum participation that any new shareholder could write is **minimum 50 026 EUR** or **978 shares** based on the bank currency rate;
- Increasing of the capital is accepted as successful in case minimum **48 875 new shares** are placed.

In case the planned necessary sum throughout the capital increase is not raised, the investors are going to decide if the Fund is going to start its investment activity with the already raised funds or to get their funds back. The deadline for the capital increase could be extended with a decision of the shareholders of the Fund, but no more than 15 working days (till 16.12.2009);

- In case higher capital than planned is raised, the shareholders will take a decision where and how to invest the additional funds;
- Purchase of shares in the capital increase happens after a decision of the Relevant Authority (for legal entities) through bank account opened in the depository bank. When the capital increase is finished and it is registered, all shareholders are given certification for the shares that they own;
- Account details:

Bank name: Eurobank EFG Bulgaria

BIC: BPBIBGSF

IBAN: BG05 BPBI 7945 5063 7861 03

Reason for payment: purchase of shares from the capital increasing of Bulgarian Green Investment Fund AD;

- Exchange rate of the depositary bank:
  - According the Currency Board, Bulgarian Lev is fixed to the Euro: EUR 1 = BGN 1.95583
  - Preferential bank exchange rate for sums above 50 000 EUR is: EUR 1 = BGN 1,955;
- In case the capital is raised before the deadline, the investors in the Fund could take a decision if it to be close and head forward to execution of its investment activity or to continue raising additional funds;
- Parties having the right to purchase shares of the Fund throughout the capital increase – they could be **maximum 99** as to the requirements of the Bulgarian legislation for non-public companies:
  - Bulgarian and international physic and legal parties;
  - Individual investors;
  - Investment companies;
  - Institutional investors;
  - Professional investors.

In the following table is presented the working schedule of the realized and planned capital increase of the Fund.

**Table 1:** Increase of the share capital

Start capital increasing	May 2009	June 2009	July 2009	August 2009	September 2009	October 2009	November 2009
Capital increasing							
Emission	Amount - 15 500 000 EUR						15 500 000
Total capital of the Fund (in EUR)	25 678	25 678	25 678	25 678	25 678	25 678	15 525 678

**6.6 STRUCTURE OF THE FUND**

In the following chart is presented the functional structure of the Fund

**Figure 1:** Structure of the Fund



## 7. INVESTMENT POLICY

### 7.1. MAIN ACTIVITIES

Bulgarian Green Investment Fund's main activity is investing monetary funds, raised through issuing shares, in diversified investment portfolio consisted of projects that meet the following criteria:

- Investment in the field of renewable energy sources
- Investments with low risk level

The main goal regarding the investment activity of the Fund is oriented towards increase in the market value of its assets, along with preservation and increase in the value of the own capital. In details, the investment goals of Fund are:

- Increase in the market values of its assets;
- Preparing projects for photovoltaic power plants;
- Full development of working photovoltaic power plants;
- Ensuring strong and experienced international partners in the field of renewable energy sources when realization of the projects of the Fund;
- Realization of incomes in exit of the investments through sale of the projects and developed capacities in the end of period of the Fund's existence or through listing on Stock Exchange Market.

### 7.2. INVESTMENT ENVIRONMENT

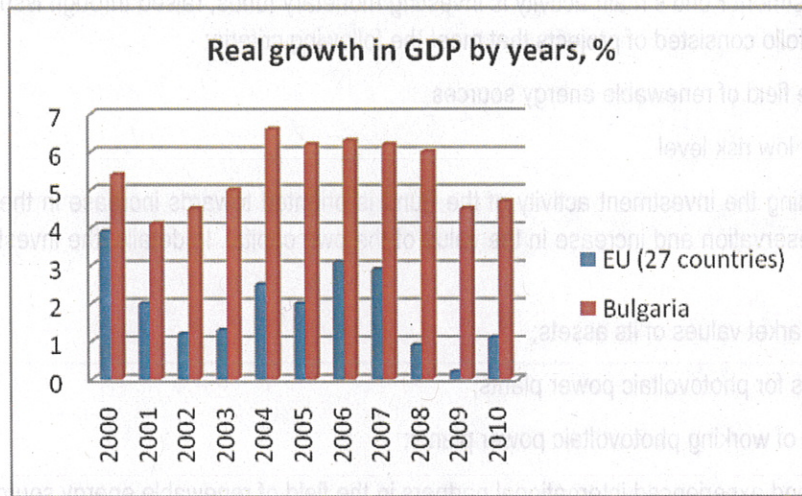
Bulgarian Green Investment Fund AD is going to accomplish its investment activity in the field of renewable energy sources, projects related to photovoltaic power plants.

In the following points, the investment environment of the mentioned above direction is described.

#### 7.2.1 PRECONDITIONS FOR INVESTING IN BULGARIA:

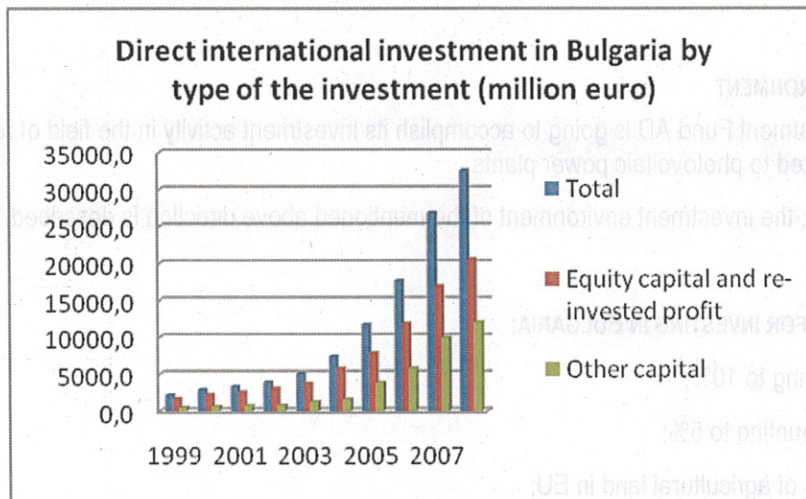
- Tax profit amounting to 10%;
- Tax dividend amounting to 5%;
- The lowest prices of agricultural land in EU;
- Low operational and exploiting costs;
- Presence of Currency Board through fixing the exchange rate of BGN to EUR;
- Membership in NATO since April 2004;
- EU membership since January 2007.

Graphic 1: Real growth of GDP by years



Source: NSI, Eurostat, AEAP, data for 2009 and 2010 is prognostic

Graphic 2: Direct Foreign Investments in Bulgaria



Source: BNB

### 7.2.2 RENEWABLE ENERGY SOURCES

Into the frames of EU, the development of renewable energy sources is policy linked with achieving of the common goals for security of the energy supplies, decrease the impact on environment and in parallel supports the increase of energy independence of the countries. Member States are free to choose the policy and measures that are going to be introduced while execution the national indicative goals, which will stimulate the production of electricity from renewable energy sources.

EC has defined quotas that each Member State should reach till 2020 in the production of renewable energy sources as a part of the whole energy consumption, as for basis data are taken 2005. Till 2020 the renewable energy should be 20% of the total energy consumption in EU (8.5% in 2005). In order to achieve this goal, each Members State should increase its production and consumption of renewable energy for electricity, heating, cooling and transport.



**Table 2. Quotas for energy produced from RES**

Countries	2005	2020
<b>EU</b>	<b>8,5%</b>	<b>20%</b>
Sweden	39,8%	49%
Latvia	34,9%	42%
Finland	28,5%	38%
Austria	23,3%	34%
Portugal	20,5%	31%
Denmark	17,0%	30%
Estonia	18,0%	25%
Slovenia	16,0%	25%
Romania	17,8%	24%
Lithuania	15,0%	23%
France	10,3%	23%
Spain	8,7%	20%
Greece	6,9%	18%
Germany	5,8%	18%
Italy	5,2%	17%
<b>Bulgaria</b>	<b>9,4%</b>	<b>16%</b>
Ireland	3,1%	16%
Poland	7,2%	15%
Great Britain	1,3%	15%
Slovakia	6,7%	14%
Holland	2,4%	14%
Czech Republic	6,1%	13%
Belgium	2,2%	13%
Cyprus	2,9%	13%
Hungary	4,3%	13%
Luxemburg	0,9%	11%
Malta	0,0%	10%

Source: Eurostat

In the process of forming the medium and long-term aims of the share of renewable energy sources Bulgaria will support efforts to create a common EU market-oriented mechanism to promote renewable energy sources, including the use of biofuels in transport sector. The aims for renewable energy sources are calculated as the proportion of energy from renewable sources of the final gross energy consumption. To reach its aim for 2020, complex purposeful measures at state level as well as accelerated introduction of renewable energy sources and saving electricity are required.

Regarding Bulgarian accession to EU, the country formed indicative aim to achieve share of renewable energy sources in electricity consumption by 11. % of the total gross domestic production of electricity in the country till 2010. At present main contribution to achieving the objective have large hydro power plant (HPP) which form over 98 % of the total production of renewable energy sources.

**7.2.3 PRECONDITIONS FOR INVESTING IN THE RENEWABLE ENERGY SECTOR IN BULGARIA**

With the aim of stimulating the production of electricity from renewable energy sources there are some preferences granted to the Bulgarian producers:

- Obligatory purchasing for 25 years of electricity produced from photovoltaic installations – till 2040.
- Preferential prices for purchasing electricity produced from renewable energy sources for installation put into exploitation till 2015.
- Preferential prices for purchasing electricity from RES, based on feed-in tariff. For photovoltaic installations with capacity up to 5 kWp – 420.8 EUR/ MWh and for installations with capacity over 5 kWp –386 EUR / MWh.
- Energy transmission and distribution companies are required to connect with priority all plants producing electricity from renewable energy sources
- The commitment for expanding and upgrading the transmission and distribution network is for the respective distribution and transmission company for which they can apply for external funding
- Implementation of mechanism for trade with green certificates in 2012

**Table 3. Forecast for the energy balance in Bulgaria, million KWh**

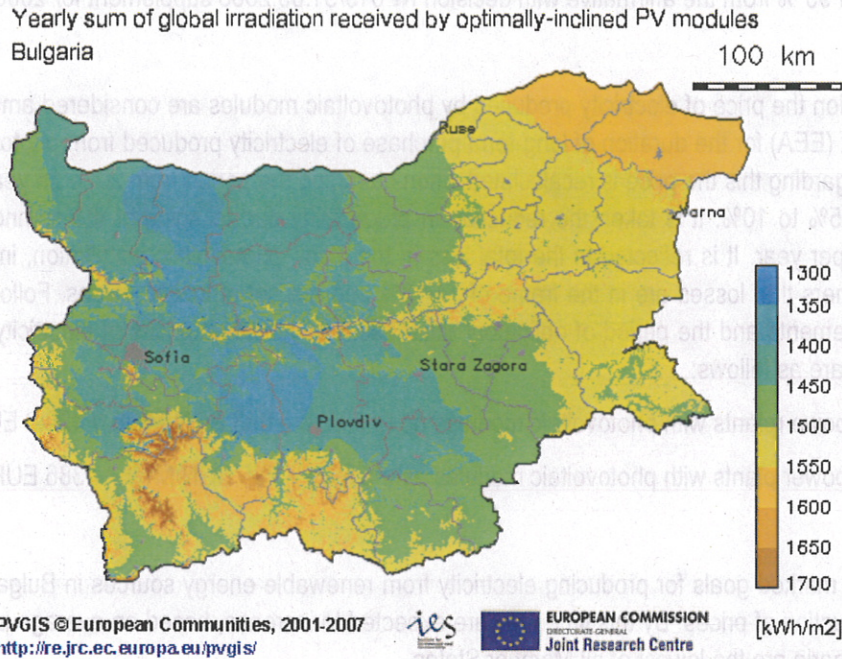
Year	2007	2008	2009	2010	2011	2012	2015	2020
Gross production	43 139	40470	39020	43446	45486	43836	51572	58649
Gross consumption in the country	38 663	39382	39020	39610	40300	41240	44970	53350

Source: SEWRC

The potential of the solar energy on the territory of Bulgaria is significant but there are obvious differences into the intensity of the sun radiation into the different regions. The territory of Bulgaria may be separated into 3 solar zones:

- Central - Eastern region - 1450 kWh/sq m/year
- North - East region - 1475 kWh/sq m/year
- Southeast and Southwest region - 1550 kWh/sq m/year

Figure 2: The level of the solar radiation of the territory of Bulgaria



## 7.3 LEGISLATION

### 7.3.1 EUROPEAN LEGISLATION

The Law of Energy and the Law of Energy Efficiency are developed on the base of regulations of the member states of EU, the European Energy Charter and the Kyoto Protocol to UN Framework Convention on Climate Change. To stimulate production and use of alternative energy sources, EU has adopted directives on RES and Energy Efficiency (EE): Directive 2001/77/EU - in support of the electricity produced from renewable energy sources in the internal electricity market, Directive 2003/30/EU - to promote the usage of biofuels or other renewable sources in transport; 2002/91/EU Directive on energy characteristics of buildings; Directive 2004/8/EU to promote co-generation systems; Directive 2006/32/EU on energy efficiency of final consumption and energy services.

### 7.3.2 BULGARIAN LEGISLATION

Energy Act, promulgated in the State Gazette No.74/08.09.2006, Renewable and Alternative Energy Sources and Bio fuels Act promulgated in the state Gazette No. 49/19.06.2007, Decision of SEWRC of December 29, 2004 for introducing preferential price for the electricity from photovoltaic power plants Ordinance No. 16-27 of February 5, 2008 for the terms and procedures for the evaluation of the prognostic and for the existing potential for the electricity production from renewable and/or alternative sources, National long term Program for the encouragement of the use of renewable sources 2005-2015.

### 7.3.3 FORMING THE PRICE OF THE ELECTRICITY PRODUCED BY PHOTOVOLTAIC POWER PLANTS

The price is formed on the base of 80 % from the average sale price for 2008 - 64.40 BGN/MWh and supplement of the amount of 95 % from the affirmative with decision № 015/31.03.2008 supplement for 2008 for RES.

In determination the price of electricity produced by photovoltaic modules are considered amendments to the Energy Efficiency Act (EEA) for the duration of long-term purchase of electricity produced from photovoltaic plants from 12 to 25 years. Regarding this the price is recalculated when changing the period from 20 to 25 years. Updated are the tax liabilities of 15% to 10%. It is taken the reduction in productivity due to aging of the technology for a period of 20 years at 1% per year. It is reflected in the total loss in the plant, photovoltaic installation, inverters, accession lines and transformers that losses are in the frame of 14-18% and are set at lowest values. Following the amendment of the pricing elements and the period of obligatory purchase, the individual prices of electricity produced by photovoltaic modules are as follows:

- For power plants with photovoltaic modules up to 5 kWp – 823 BGN/MWh / 420.8 EUR/ MWh /
- For power plants with photovoltaic modules over 5 kWp – 755 BGN/MWh / 386 EUR/ MWh /

Till achieving marked goals for producing electricity from renewable energy sources in Bulgaria before 2015 it is not expected reduction of prices. By this time they are expected to increase, based on average prices of electricity in the EU, as in Bulgaria are the lowest of all Member States.

Table 4: Average prices of the electricity in EU

Electricity consumption			
€ per kWh electricity Consumption: 3500 kWh/year (30% during nighttime)		€ per kWh electricity Consumption: 7500 kWh/year (30% during nighttime)	
average amount in euro per one kWh of electricity for domestic consumers incl. taxes & duties Effective: June '08		average amount in euro per one kWh of electricity for domestic consumers incl. taxes & duties Effective: June '08	
Bulgaria	0.088	Bulgaria	0.0834
Greece	0.095	Estonia	0.0866
Latvia	0.095	Latvia	0.0878
Estonia	0.097	Lithuania	0.0950
Lithuania	0.101	Czech Republic	0.1020
Malta	0.121	Greece	0.1036
Czech Republic	0.136	Finland	0.1172
Slovenia	0.147	Slovenia	0.1241
Finland	0.147	Romania	0.1345
Romania	0.150	Spain	0.1357
France	0.157	France	0.1408
Spain	0.159	Malta	0.1417
Poland	0.163	Poland	0.1472
United Kingdom	0.166	Slovakia	0.1516
Hungary	0.172	United Kingdom	0.1530
Cyprus	0.174	Cyprus	0.1590
Portugal	0.195	Portugal	0.1596
Austria	0.203	Hungary	0.1634
Belgium	0.205	Austria	0.1710
Slovakia	0.208	Belgium	0.1776
Ireland	0.216	Ireland	0.1814
Luxembourg	0.219	Italy	0.2635
Sweden	0.223	Denmark	0.2768
Germany	0.253	Germany	no data
Netherlands	0.283	Luxembourg	no data
Italy	0.304	Netherlands	no data
Denmark	0.318	Sweden	no data

Source: Europe's energy portal

## 7.4 DEVELOPMENT OF PROJECTS IN THE FIELD OF SOLAR ENERGY

### Project investment

The realized projects from Bulgarian Green Investment Fund AD, are expected to be sold till the end of the third year of its existence. It is expected the projects to be sold at significantly higher price from their investment value due the following factors:

- Increasing the price of the parcels in the following years, on which the projects are realized;
- Increasing the construction costs and permissions for development of the projects;
- Sales of operating projects with proven profitability.

### 7.5 STAGES OF THE INVESTMENT PROCESS FOR PHOTOVOLTAIC POWER PLANTS:

#### 1. Investment design

- a) Investment project - identifying and assigning the phases of design and parts of the project for each phase depending on the type and specificity of the object
- b) Collection of data, documents and preparation of task design
  - assignment of the terrain for building solar plant - clarify ownership of the site designated for a pre-investment ; acquisition of ownership or use of land for construction of the solar system; visa design
- c) Preparation of design specifications (contract for design)
- d) Design
  - Preparation of solar audit
  - Preparation of a financial model
  - Preparation of technical project

#### 2. Permits and licenses:

- a) Written request for exploration of the conditions and manner of connection to the transmission and distribution electricity grid
- b) Obtaining permission for construction
- c) Signing of contract for connecting to the grid
- d) Obtaining a license for production of electricity from SEWRC for capacity for more than 5 MWp

#### 3. Construction and installation

- a) Contracts between participants in the construction
- b) Opening of construction platform and determining the building line and level
- c) Insurance in the design construction

#### 4. Completion of construction. Permission for use

- a) Executive drawings
- b) Establish eligibility for admission to the solar system - 72-hour tests
- c) Connection to the grid
- d) Registration, receiving permit for use, putting into operation

### 7.5.1. ACQUISITION OF LAND AND CHANGING THE LAND DESIGNATION (STAGE I - FIRST YEAR)

First stage of the investment strategy of the fund provides the following:

- Acquisition of land suitable for development of projects in the field of solar energy. The land is purchased as agricultural with perspective for further designation into industrial. Estimated price is to **0.5 EUR per sq.m.** The parcels are primarily intended for development of photovoltaic parks.
- The total amount of the purchased land will be in the amount of **3 500 decares** for the sum of **1.8 million EUR.**
- During the first year on **2800 decares** of the agricultural land will be changed designation into industrial and will obtain all necessary permits for construction of a photovoltaic power plant. Costs of changing the destination of the land will be in the amount to **3.5 million EUR.** Estimated cost for change the destination of the land is **1.25 EUR per sq.m.**
- The main preconditions for the realization of the idea are:
  - o Main part of the foreign investors which have an interest in projects in the field of RES prefer to buy land with the designation changed in order to minimize the risk of the investment;
  - o Similarly to the above fact, the investors are looking for parcels with ready electricity infrastructure;
- Starting an activity for construction of photovoltaic power plants on the basis of structured projects jointly with other companies on a total area of **1040 decares**, from the first **2800 decares** with changed land designation, amounting to **9.5 million EUR.** It is expected that after the change of designation, the Fund will create energy parks, in which on part of the parcel will develop common projects for production of green energy, which subsequently will receive income guaranteed by the state.

The main idea of the Investment Stage I, which will be develop during the first year, is the Fund to take advantage of short-term reduction of investment activity in Bulgaria to acquire investment assets, mainly land at low costs suitable for projects in the field of renewable energy and to change the designation of the land and to begin the construction of photovoltaic projects.

### 7.5.2. DEVELOPMENT PROJECT (STAGE II - SECOND YEAR)

This stage includes the following main activities:

- Sale of the parcels with changed land designation and received necessary permits for construction of photovoltaic parks **1760 decares - 15.84 million EUR.** The incomes are based on the price range of **170 000 - 190 000 EUR for 1 MW power.**
- Changing the land designation of the other **700 decares** of agricultural land and obtaining all necessary permits for project - **0.88 million EUR**
- Activity for development of photovoltaic power plants on the basis of structured projects jointly with other companies on the total area of **1040 decares - 13.25 million EUR.**

The main idea of the Investment Stage II, which will be develop during the second year is to change the land designation of the remaining agricultural parcels and to make the second stage of financing projects which will be constructed in a joint company and from the other site to realize the profitability of the sale of already finished projects.

**7.5.3 SUMMARY FOR EXIT OF THE INVESTMENTS (SECOND AND THIRD YEAR)**

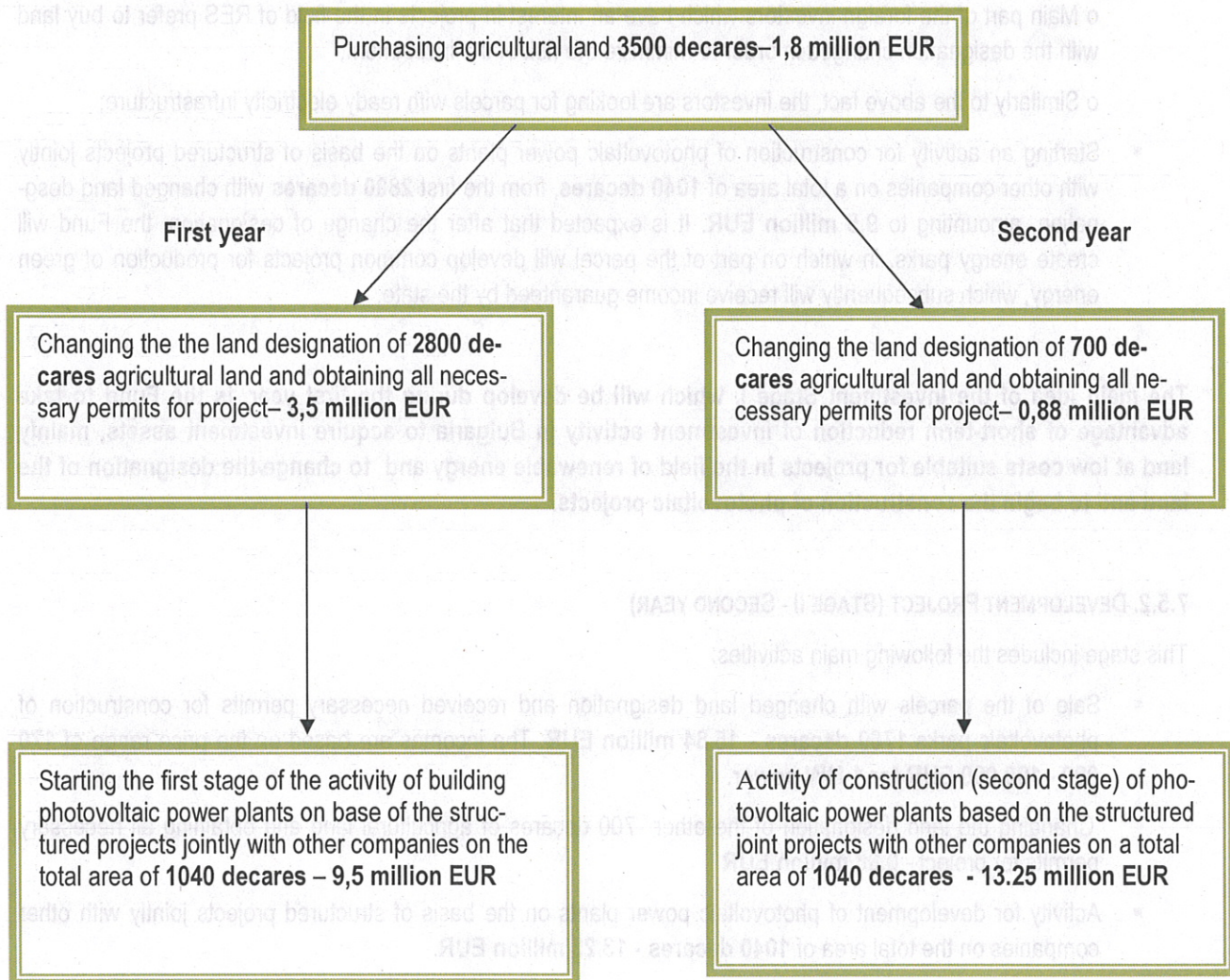
**Second year**

- Sale of photovoltaic power plants on projects stage, their parcels and ready documentation – **15.84 mln. EUR** (they will be re-invested for continuing the development of the operating powerplants);

**Third year**

- Sale of photovoltaic power plants on projects stage, their parcels and ready documentation – **6.3 mln. EUR**;
- Sale the equity participation of the Fund in the established and operating photovoltaic power plants – **32.5 mln. EUR**.

**Figure 3: Investment plan**





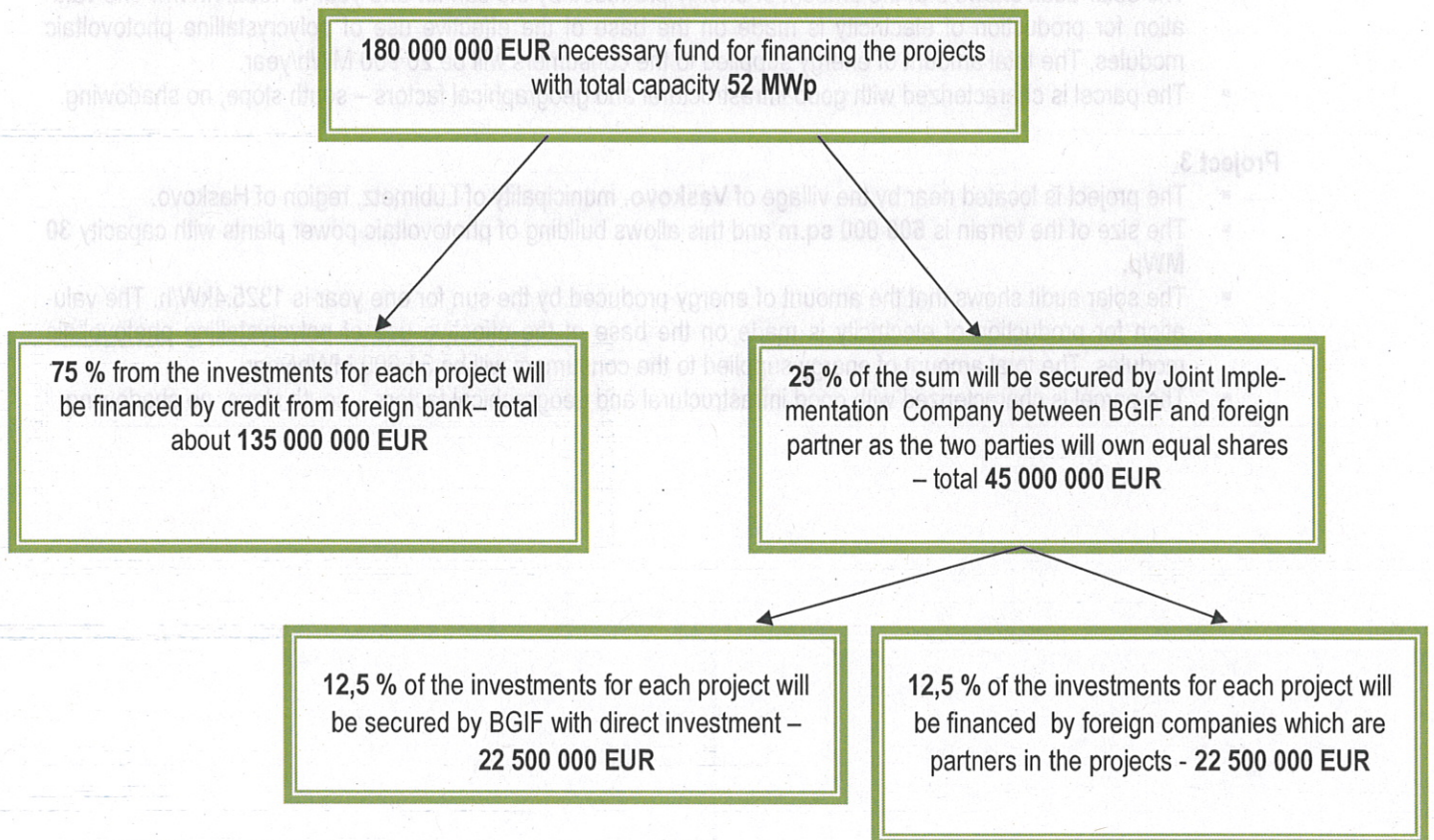
**7.6 PROJECTS THAT THE FUND WILL DEVELOP FOR ITS INVESTMENT PROGRAM**

**General information about the projects**

The total power capacity of the projects in which the Fund will invest is approximately 52 MWp and the total investment value is equal to 180 million EUR. The Fund will invest directly 12.5 % of funds needed for realization of each project. During the realization of each project it is supposed a partnership with foreign companies, the project partners will also invest directly 12.5 % of the investments.

To secure the remaining funds it is provided use of bank credit from foreign banks. After payment of credits for each of the projects, the share of the Fund will be 50 % of the real value of assets. The remaining 50% will be owned by a company partner in the project.

**Figure 4: Structure of the investment projects**



### Project 1

- The project is located near by the village of **Bonevo**, municipality of Tervel, region of Dobrich.
- The size of the terrain is **75 000 sq.m** and this allows building of photovoltaic power plants with capacity **3.5 MWp**.
- The solar audit shows that the amount of energy produced by the sun for one year is 1390.3kW/h. The valuation for production of electricity is made on the base of the effective use of polycrystalline photovoltaic modules. The total amount of energy supplied to the consumers will be 4480 MWh/year.
- Nearby the parcel there is power transformer. The parcel is characterized with good infrastructural and geographical factors – south slope, no shadowing and good accessibility

### Project 2

- The project is located near by the village of **Valche pole**, municipality of Lubimetz, region of Haskovo.
- The size of the terrain is **360 000 sq.m** and this allows building of photovoltaic power plants with capacity **18 MWp**.
- The solar audit shows that the amount of energy produced by the sun for one year is 1332.4kW/h. The valuation for production of electricity is made on the base of the effective use of polycrystalline photovoltaic modules. The total amount of energy supplied to the consumers will be 20 900 MWh/year.
- The parcel is characterized with good infrastructural and geographical factors – south slope, no shadowing.

### Project 3

- The project is located near by the village of **Vaskovo**, municipality of Lubimetz, region of Haskovo.
- The size of the terrain is **600 000 sq.m** and this allows building of photovoltaic power plants with capacity **30 MWp**.
- The solar audit shows that the amount of energy produced by the sun for one year is 1325.4kW/h. The valuation for production of electricity is made on the base of the effective use of polycrystalline photovoltaic modules. The total amount of energy supplied to the consumers will be 34 600 MWh/year.
- The parcel is characterized with good infrastructural and geographical factors – south slope, no shadowing.

## 8. RISKS

According to one basic understanding in the economy, the higher the risk in definite investment is the higher return of investment is. This concept is coming from the fact that every business and every investment are related to certain risk factors. Therefore it is recommended to the investors carefully to examine and understand the main risks that are connected with the subject to its interest. So they can determine whether the risks associated with investments, coincides with the level that can bear his investment portfolio and to take a final decision whether to invest in shares that are subject of his interests.

Potential investors in shares offered by Bulgarian Green Investment Fund AD should have in mind that some information regarding the risks pointed out in this and the other parts of the prospectus refers to future events that are uncertain and conditional . At the date of preparation of the Memorandum of private placement of shares Bulgarian Green Investment Fund AD have used sources, information and data that are considered for reliable, but that does not ensure the expected by the Fund result. Actual financial results and development of the Fund are result of many factors, including the effects of the described below risk factors. Bulgarian Green Investment Fund AD is exposed to general and specific risk connected with the macroeconomic environment and specific areas in which the Fund will operate. Different groups of risks can affect at the same time the activity of Bulgarian Green Investment Fund AD, as some of them may be limited, but others are beyond the control of the Fund.

The expected from Bulgarian Green Investment Fund AD mechanisms to limit and decrease the risks described in the following points.

### 8.1 SPECIFIC RISKS RELATED WITH THE PROJECT INVESTMENT IN FIELD OF RES

The main area of activity of the Fund is management and investment in projects in the field of renewable energy sources (construction of solar power plants), grants financing, trading with gas emissions, etc. The promotion of the construction of such facilities is expressed with preferential prices for the purchase of the produced energy and that price has to cover economically justified initial investments, concomitant operating costs and to report the following risks:

Technological risk – the development of energy projects using new technologies based on renewable energy sources requires a major investment, even if the primary energy source is free, compared with the traditional energy projects. The lack of tradition in some of these technologies, which service companies and qualified personnel, impose additional investment.

Risk associated with the character of the primary energy source - there is a danger the primary energy source not to serve the necessary criteria which will reflect on the cost of exploitation and maintenance. On one hand, this could reflect on the amount of energy generated which will reduce the revenue from the sale. The prediction for the the number and duration of sunny days which determine the congestion and profitability of the capacities of RES can be made on the basis of long-term or short-term extrapolated data for this project.

Business risk - this risk is associated with potential adverse changes in the concrete market and economic conditions in which the Fund operates. The implementation of the planned projects has long duration and it is possible modification of some of the parameters such as time limits, additional activities or requirements to them.

Risk of connecting the national energy network (Electricity distribution companies (EDC) or National Electric Company (NEC)) - Despite the obligation of EDC and NEC to join to their network every producer of renewable energy sources there is probability of slowing down in time which will increase the period of repayment of the investment

project. Capacity of renewable energy sources begin to generate revenue when they are built and included to ERD and NEC, otherwise it is charged only exploitational costs to the project till connecting the grid are charged.

**Regulatory risk** - the activity of Bulgarian Green Investment Fund AD is exposed on regulatory risk because the Fund will pursue an independent and / or shares in companies carrying out activities for which a license is required, that is for production of electricity and / or heat with a total installed capacity over 5 MW it is required the presence of a license under Art. 39, p.1, p.1 and participation in the trading market for electricity it is required a license under Art. 39, p.1, p.5 of the Law of Energy (SJ. copy 43 29.04.2008). The issuance of the license is made by the State Energy Regulatory Commission (SEWRC) on procedures specified under the Regulation on licensing activities in energy (SJ. copy 11 05.02.2008).

## 8.2. COMMON (SYSTEMATICAL) RISKS

Common risks come from possible future changes in the economic system as a whole and particularly change in the circumstances in the financial markets. They could not be diversified because all economic subjects are exposed to them. These specific features impose very precise analysis of the fundamental economic indexes which influence could be observed in long term.

The economic development of the country since the introduction of the Currency board in 1997 is characterized by achieving macro economical stability, strengthening the surveillance over the financial institutions, controlling and bringing the inflation to minimal values. The fixing of Bulgarian lev towards euro has lead to increasing the trust of the investors while achieving their planned results.

The accession of Bulgaria to NATO and European Union imposes supporting of the macroeconomic and political stability, including the following already set economic criteria for membership in European Union and European Monetary Union – restricted budgetary deficit, low inflation, low levels of long term interest rates, stability of the exchange rate, and fulfillment of the taken international commitments.

Each one of the risks related with the country – political, economic, credit, inflationary, regional – has separated meaning, but their general view along with their interaction form overall idea about the main economic indexes, market conditions, competitive conditions in the country in which the Fund realizes its activity.

### A) CREDIT RISK

Credit risk is associated with the credit ability of the country-debtor and its ability to pay off regularly its credit obligations. The determination and measurement of this risk is realized by specialized international credit agencies. The different ratings are published on the web page of the Bulgarian Ministry of Finance ([www.minfin.government.bg](http://www.minfin.government.bg)). In the following table the Bulgarian credit rating is presented by the date of preparation of this document.

**Table 5 Credit ratings of Bulgaria**

rating agency	date	Foreign currency			Local currency		
		long term	short term	perspective	long term	short term	perspective
		Fitch	10.11.2008	BBB-	F3	stable	BBB
Japan Credit Rating Agency	16.12.2008	BBB	-	stable	A-	-	stable
Standard & Poor's	30.10.2008	BBB	A-3	negative	BBB	A-3	negative
Moody's	20.3.2009	Foreign currency			Local currency		
		bonds and long term securities	long term bank deposits	perspective	long term treasury bills		
		Baa3	Baa3	stable	Baa3	-	-

SOURCE: MINISTRY OF FINANCE IN BULGARIA

The main achievements of the country noticed by the rating agencies are:

- Stabilization of fiscal policy;
- Constant GDP growth;
- Reduction of the foreign debt to GDP;
- Stable prospects for growth in medium term;
- Good internal balance;
- Accession of Bulgaria to NATO in April 2004;
- Accession in European Union in January 2007;

**B) POLITICAL RISK**

Political risk could come from future emerging of political disturbances that lead to worsening the normal functioning of the state institutions and agencies. It is expressed in taking on behalf of the official authorities different measures and initiatives that could lead to worsening the market and investment conditions by which the Fund realizes its activity; to worsening the financial results and respectively the profitability that the shareholders receive.

Regarding the main activity of the Fund, there is risk of changing tax legislation (at the moment of composing this document the corporate tax is 10% and the tax on dividend is 5%); legislation changes connected with renewable energy sources and real estate market in Bulgaria; changes in other norms having direct attitude to the activity and financial result of the Fund, including ecological requirements, forced expropriation of land for state and municipal needs. Bulgarian Green Investment Fund AD can't guarantee that the current tax preferences, legislation norms and positive prospects for development will remain for the whole period of the Fund existence.

**C) RISK OF SLOWDOWN IN ECONOMIC GROWTH**

The slowdown of the economic growth of the country could lead to going weak the purchasing power of the economy participants and lower levels of consumption and investment which will definitely result in negative demand of real estate properties in the country and respectively the profitability of the Fund. The efforts put on behalf of the executive power for restructuring of the economy of the country, increasing its competitiveness as well as the attraction of new investment create the precondition for accelerated economic growth in medium terms.

#### D) INFLATIONARY RISK

The risk of increasing the inflation is linked with decreasing the real purchasing power of the economic participants and eventual depreciation of the assets, denomination of the local currency. The system of Currency board controls the supply of money but some external factors (e.g. increasing the petrol's price) could bring pressure in terms of increasing the pricing levels. It's expected that the accession of Bulgaria in European Union along with the stable growth of the Bulgarian economy will put pressure towards reaching the pricing levels of the other member states of European Union, i.e. inflation in the country to be higher than the average temp of the inflation in the member state of the European Union. By this moment, the mechanism of Currency board guarantees that inflation in the country will remain under control and won't have negative impact.

#### E) CURRENCY RISK

The currency risk comes from the change in exchange rate of Bulgarian lev to other international currencies by which the economic participant realizes their business. Fluctuations in exchange rates change (improve or worse) the realized volume of the planned cash flows, denominated in local currency, which leads to change in the realized financial result.

Bulgarian lev is fixed to euro at the exchange rate of EUR 1 = BGN 1.95583. The fixed exchange rate of BGN to EUR bring the Bulgarian currency the risk of adverse movements in the exchange rate of euro to other main currencies (USD, JPY, CHF) on the international capital markets, but we consider that such adverse effect will be considerable for the Fund's activity.

Nevertheless, the changes in exchange rates of the main international currencies could have some indirect adverse impact on the profitability of the Fund. This influence is expressed by increasing prices of construction materials, energy sources and others, which at first are implemented in currency different from euro.

The possible adverse effects, which could appear as a result of changes in exchange rates and influence the Fund activity, will be very carefully appreciated. It's expected to be used appropriate schemes and instruments for protection from currency risk which can be made both on Bulgarian and international financial markets.

#### E) OTHER SYSTEMATICAL RISKS

The work of the Fund can be affected by changes in the world and regional economic and political situation, the slowdown of the world or regional economic development, military actions, civil disobedience, nature disasters or other absolute circumstances can sufficiently impede the Fund in the fulfillment of the goals it has set.

The difficulty in forecasting those events and the inability for full insurance forces the usage of precise analysis approach of the available information, insurance of the possessed property, definition of an action program in case of crisis situation.

## 9. FINANCIAL FORECASTS FOR THE ACTIVITIES OF THE FUND

### 9.1 MAIN ASSUMPTIONS

During preparing the prognosis of the financial results of the Fund it was made assumptions that are based on:

- existing circumstances and information for which the date of this memorandum the Fund has no reason to believe that they are false, inaccurate or misleading and
- analysis, studies and forecasts, which sources at the date of this memorandum the Fund believes to be reliable and credible

During preparing the prognosis of the financial results the Fund has made every effort to implement an integrated model of prognosis, which indicates the current economic factors, sources of historical market changes and the potential of planned investments. However, potential investors should have in mind that it is possible to occur events that prevent achievement of the forecast financial results of the Fund.

The investor should know that all statements of the Fund that are related to the prognosis of the financial results relate to uncertain future events and statements may not constitute a guarantee for the realization of the prognosis financial results. Potential investors have to be careful and to examine the contents of section 5 of this registration document - Risk factors and the information presented in this and other parts of the Memorandum before taking a final decision to invest in the proposed from the Fund shares .

Potential investors should have in mind that to future events that the Fund consider, there are factors over which the Board of Directors of the Bulgarian Green Investment Fund AD may affect, and those upon whom it can not. They are listed exhaustively below.

- Factors over which the Board of Directors of the Fund may affect:

- **structuring the investment portfolio**

The projects in which the funds are going to be invested will fully meet the requirements of the developed investment portfolio. The structure of the investment portfolio is selected consistently with the current market situation based on deep analysis of the sectors in which the Fund is going to invest. However, the Fund is prepared to respond promptly to a change of the market conditions and restructure the investment portfolio of the Fund in a way to ensure its investment objectives.

- **optimization of the expenses**

The expected costs related to the Fund's investment activity are made on the principle "the best offer". In order to protect the interests of its shareholders, the Fund will execute permanent monitoring over the expenses and may require from the servicing Fund change in the subcontractors to optimize the costs.

- **optimization of the deadlines**

While preparing the estimated financial information the principles of conservative forecasting are used and longer than the market deadlines for execution of each stages of the realization of the projects are set. The Fund is going to use the expertise of its team, as well as the team of the servicing Fund and chosen lawyers in order to form the contracts in a way to optimize the deadlines for execution of each activity and to ensure the substitution of the subcontractors is case of fault without disturbing the schedule of the project.

- Factors that are exceptionally out of control of the Board of Directors of the Fund :

- **presence of investors interest**

The expected financial results published in this Memorandum are based on the assumption that the Fund will manage to raise funds for execution of the supposed investments through private capital increase.

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▪ **favorable development of the investment sectors**

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Prognoses for intensive development of the economic sector in which the Fund is going to invest are done. Any change in the pace of the development of these sectors could lead to a change in the financial result of the Fund.

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▪ **keeping the system of Currency board in the country**

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The fixed exchange rate of Bulgarian lev to euro is used while calculating the incomes from the Fund's main activity. A change of this fixed exchange rate is going to affect the incomes which the Fund expect to realize.

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▪ **keeping the existing tax concessions**

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The presented financial prognoses are consistent with the current tax legislation. A change in this policy would reflect in reduction of the profit of the Fund

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## 9.2 BASE FOR THE FORECASTS

The reporting currency of the Fund is Bulgarian lev (BGN) and the prognosticated financial reports are presented in Euro (EUR). The following accounting principles are kept:

- accrual-based accounting – the Income and expenses over the transactions and events are reported in accounting at the moment of their appearance, no matter the moment of receiving or paying cash resources or their equivalents;
- prudence – obligatory assessment and reporting of the supposed risks and expected losses
- matching between Income and expenses – recognition of the expenses associated with separated transactions or events in the financial result for the period during which the Fund reports their effects. Recognition of the Income is reported for the period in which the expenses for their receiving is reported
- advantage of content ahead of form – transactions and events are reported in relevance with their economic content, essence and financial reality no matter their law form.

As a basis for calculation of the expenses for taxes, current tax rates as to the date of this Memorandum are accepted.



**9.3. INVESTMENTS**

Investment	Amount million euro
<b>I year</b>	
1.1. Investments in land, including:	
1.1.1. Non-regulated parcels for development of photovoltaic power plants - 3 500 000 m <sup>2</sup>	1,8
1.2. Structuring of projects for photovoltaic power plants (over part of the acquired land under p. I)	
1.2.1. Change land designation and receival of all necessary permissions for a project - 2 800 000 m <sup>2</sup>	3,5
1.3. Investment activity for development of photovoltaic power plants	
1.3.1. Start of activity for development photovoltaic power plants on the basis of the structured projects jointly with other companies (over total land of 1 040 000 m <sup>2</sup> )	9,5
<b>Total investment for I year</b>	<b>14,75</b>
<b>II year</b>	
2.1. Structuring of projects for photovoltaic power plants (over part of the acquired land under p. I)	
2.1.1. Change land designation and receival of all necessary permissions for a project - 700 000 m <sup>2</sup>	0,88
2.2. Investment activity for development of photovoltaic power plants	
2.2.1. Start of activity for development photovoltaic power plants on the basis of the structured projects jointly with other companies (over total land of 1 040 000 m <sup>2</sup> )	13,25
<b>Total investment for II year</b>	<b>14,13</b>
<b>Total investments</b>	<b>28,88</b>

**9.4. INCOMES**

II year	million euro
<b>1. Incomes from sale of properties</b>	
1.1. Parcels for development of photovoltaic power plants	15,84
<b>2. Incomes from sale of realized projects</b>	
2.1. Projects – solar energy	0
<b>Total incomes for II year</b>	<b>15,84</b>
<b>III year</b>	
<b>1. Incomes from sale of properties</b>	
1.1. Parcels for development of photovoltaic power plants	6,3
<b>2. Incomes from sale of realized projects</b>	
2.1. Projects – solar energy	32,5
<b>Total incomes for III year</b>	<b>38,8</b>

**9.5. EXPENSES**

I year	million euro
1. Management fee for the managing company	0,434
<b>Total</b>	<b>0,43</b>
<b>II yaer</b>	
1. Management fee for the managing company	0,406
<b>Total</b>	<b>0,41</b>
<b>III year</b>	
1. Management fee for the managing company	0,4116
2. Reward for good governance	2,025
<b>Total</b>	<b>2,44</b>

**9.6. CASH FLOW**

I year	million euro
1. Cash availability in the beginning of the year	15,5
2. Incomes	0
3. Expenses	0,43
4. Operating profit (Incomes – Expenses)	-0,434
5. Carrying value of sold assets	0
6. Taxes	0
7. Net profit (Operating profit – Taxes)	-0,434
8. Investments	14,75
9. Dividend	0
<b>10. Cash availability at the end of the year</b>	<b>0,32</b>
<b>II yaer</b>	
1. Cash availability in the beginning of the year	0,32
2. Incomes	15,84
3. Expenses	0,41
4. Operating profit (Incomes – Expenses)	15,434
5. Carrying value of sold assets	3,08
6. Taxes	1,192
7. Net profit (Operating profit – Taxes)	14,242
8. Investments	14,13
9. Dividend	0
<b>10. Cash availability at the end of the year</b>	<b>0,43</b>
<b>III year</b>	
1. Cash availability in the beginning of the year	0,43
2. Incomes	38,8
3. Expenses	2,44
4. Operating profit (Incomes – Expenses)	36,3634
5. Carrying value of sold assets	23,975
6. Taxes	1,23884
7. Net profit (Operating profit – Taxes)	35,12456
8. Investments	0,00
9. Dividend	35,56
<b>10. Cash availability at the end of the year</b>	<b>0,00</b>

**9.7 FORECASTED DIVIDENT AND PROFITABILITY**

Year	million euro		
	I year	II year	III year
Free cash at the end of the year	0,32	0,43	0,00
Long-term assents at the end of the year	14,75	25,80	0
Paid dividend	0,00	0,00	35,56
Annual profitability on dividend basis	0,0%	0,0%	137,1%
<b>Total average annual profitability for the period (3 years)</b>	<b>45,69%</b>		

It is planned the Fund to distribute dividends at the end of the third year.

The fact that in the third year the Fund will end its activities with the sale of all its assets and distribute the financial result as dividend payments, these dividend payments will have also a character of a liquidation share of the Fund.

The total amount of the dividend payments for the whole period of existing of the Fund will be **35,56 mil EUR**, including the initially invested **15,5 mil EUR**.

Net yeild for the entire 3 year period is **137,1 %** , on annual base is **45,69 %**.

According shareholders decision the Fund can be listed on Stock Exchange Market in the end of the third year as an option for exit of the investment.

THE UNDERSIGNED PARTIES AS REPRESENTATIVES OF BULGARIAN GREEN INVESTMENT FUND AD RESPECTIVELY THE MANAGEMENT COMPANY - COMPANY FOR CAPITAL MANAGEMENT, WITH THEIR SIGNATURE ON THE LAST PAGE DECLARE THAT THE INFORMATION IN THE MEMORANDUM IS RELIABLE.

Year	Year I	Year II	Year III
Free cash at the end of the year	14.76	0.00	0.00
Long-term assets at the end of the year	28.80	0.00	0.00
Paid dividend	0.00	0.00	0.00
Annual profitability on dividend basis	0.00%	0.00%	0.00%
Total average annual profitability for the period	0.00%	0.00%	0.00%

**For Bulgarian Green Investment Fund AD:**

*M. Polimenov*  


**Milen Polimenov**  
**Managing Director**

**For Company for Capital Management:**

*Roumen Stoilov*  


**Roumen Stoilov**  
**Chairman of the Board of Directors**