



UNIVERSITY OF TWENTE.

Centre for Studies in Technology and Sustainable Development (CSTM)
School of Management and Governance

**How Corporate Social Responsibility Enhances the Development
of Renewable Energy Supply in Bulgaria**

Zoritsa Alipieva
Master of Environmental and Energy Management
University of Twente

12.01.2013, Enschede
Dr. Yoram Krozer
Dr. Laura Franco

Abstract

The thesis illustrates the business case of CSR values, enhancing energy efficiency and sustainability of renewable energy supply (RES) in Bulgaria. It explores the reasons why the relationship between CSR and corporate social performance (CSP) is profitable for RES companies. It argues, in current economic downturn Bulgarian energy sector can prosper, only if it develops RES, complying with European energy requirements for CSR efficiency and sustainability: mandatory energy audits and minimum efficiency standards. It provides argumentations on CSR implementation in Bulgarian energy sector. To this end, in the literature review analysis the author discussed how CSR encourages RES development in terms of energy efficiency and sustainability.

The awareness and validity of these ideas are deliberated in a qualitative analysis of interpreted interviews with RES agents: international and local companies, governmental and non-profit organizations (NGOs) from RES sector in Bulgaria. The qualitative analysis focuses on RES development in Bulgaria for two reasons: firstly, RES is a main generator of secure, competitive, and low-carbon energy supply to the local economy which is primarily based on fossil fuels imports; and secondly, because European reports argue RES in Bulgaria tackles the challenge of high energy intensity and increased fuel prices because RES generation is unlimited and domestic. However, the significance of RES generation and CSR values for energy efficiency and sustainability are internationally recognized. Thus, the research results measure the ability of CSR to increase CSP performance of RES companies in Bulgaria. The highlighted conclusion of this study was that CSR is not a cost per se to governmental institutions; rather, it is a business strategy to enhance profitable business behavior in Bulgarian RES sector. The outcomes are significant for encouraging more business organizations to adopt responsible business behavior for sustainable growth.

Key words: Corporate Social Responsibility, Renewable energy supply, Renewable energy agents, Efficiency, Sustainability, Profit

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List of Acronyms

CSR – Corporate Social Responsibility
RES – Renewable Energy Supply
SD – Sustainable Development
CSP – Corporate Social Performance
CFP - Corporate Financial Performance
NGOs – Non-Governmental Organizations
EE – Energy Efficiency
FEC – Final Energy Consumption
EU – European Union
MIET - Ministry of Economy, Energy and Tourism of the Republic of Bulgaria
SRI – Strategic Responsible Investment
BGWEA - Bulgarian Wind Energy Association
WBCSD - World Business Council for Sustainable Development
WCED - World Commission on Environment and Development
EEO - CSR policies and practices for equal employment opportunities
GRI - Global Reporting Initiative
UNGC- United Nations Global Compact
AACC - American Association of Community Colleges
ESG - Environmental, Social and Governance risks
CAPs - Community Advisory Panels
SHRM – Society for Human Resource Management
SMEs – Small & Medium Enterprises
GHG – Greenhouse Gas Emissions
NREAP - National Renewable Energy Action Plan

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Chapter I: Introduction

1.1. Background

In a period of economic crisis, RES is a primary need of the unsustainable energy model in Bulgaria (Mantcheva, D. et al., 2012¹). Yet, the significance of CSR values for the renewable energy sector (RES) in Bulgaria has not been acknowledged, a fact that hinders RES development. CSR and RES are essential for the country's competitive development, having the highest economic energy intensity within the European Union (CSD, 2010²; Energy Charter Secretariat, 2008¹¹). CSR activities provide high standards for economic, social and environmental development, known as sustainable business development that increases RES performance and supply. Therefore, CSR standards enhance RES competitiveness, efficiency, and sustainability. The problem is that RES managers do not perceive CSR values as beneficial for RES development, but as European standards which bring about more obligations and costs. Further, EU experts argue that the success of CSR benefits requires long-term investment, while the focus of the Bulgarian market is on short-term profits and rapid gains. As a result, there is a lack of awareness about the benefits of CSR and its implementation, which limits Bulgarian economic, social and environmental integration to the EU market (European Commission, 2011³, European Commission, 2001⁴).

According to (Denitza, M. et al., 2012; CSD, 2010), Bulgarian RES is one of the most poorly developed within the EU with low competitiveness, despite having the lowest tax rates for investors. International experts, assessing new EU members, criticize the country (Bulgaria) for lacking transparency, accountability and trust in the governmental system due to corruption, organized crime and weak judiciary (European Commission, 2008⁵). Further, investors argue governmental policies have created a risky market, low returns on investments and a lack of stability. Poor economic conditions have resulted in the inefficient development of the energy sector: high fossil fuels intensity, weak technological progress and a lower quality of supplied energy. Analyzing this situation, EU experts and international companies require CSR promotion and RES development in the Bulgarian energy sector (European Directive 2009/ 28/ EC). As a result, the Ministry of Economy, Energy and Tourism of the Republic of Bulgaria (MIET) has addressed the needed efficiency of energy generation and consumption in its Renewable Energy Strategy⁶ (MIET, 2010⁶). EU experts argue that without CSR implementation opportunities for RES market advantages, innovations, and secured energy supplies are lost, because CSR is seen

¹ Mantcheva, D. et al., (2012), 'Green Growth and Sustainable Development for Bulgaria: Setting the Priorities', Friedrich Ebert Foundation.

² Center for the Study of Democracy (CSD), (2010), 'The Energy Sector in Bulgaria: Major Governance Issues', Center for the Study of Democracy.

³ European Commission, (2011), 'Corporate Social Responsibility: a new definition, a new agenda for action', European Press Releases Database.

⁴ European Commission, (2001), 'A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development', Europa Press Releases Database.

⁵ European Commission, (2008), 'Bulgaria and Romania – More Work Needed on Corruption', Europa Press Releases Database.

⁶ Bulgarian Ministry of Economy, Energy and Tourism (MEET), (2010), conducted 'National Renewable Energy Action Plan' in accordance with the Directive 2009/28/EC of the European Parliament. The aim is to decrease global pollution, solve fossil fuels demands, reduce energy consumption by achieving energy efficiency based on renewable energy.

as a necessary measure in the drive to create a more competitive Europe and trust in the systems of the market economy (European Commission, 2013⁷). The current problem lies in the lack of CSR practices among RES managers in Bulgaria. (Line, M. & Braun, R., 2007)⁸, assessing the development of CSR practices in Bulgaria, confirms CSR application is limited due to lack of awareness of CSR benefits and the need for dynamic communication between businesses, government and NGOs. Further, reports confirm misconceptions in the way Bulgarian managers apply CSR as: “compliance with the requirements of legislation”, “general interest in the welfare of workers” or “a one-dimensional concept...limited to the social aspect”. The relationship between CSR and sustainable business development is not perceived (Alpha Research, 2007; Alpha Research, 2006).^{9,10} In most cases, Bulgarian RES companies are required to follow transparent models of international companies for implementing social and environmental standards for sustainable development. In this sense, in Bulgarian context CSR is perceived as an obligation, rather than as a strategic value. Further, companies regard CSR as costly standard per se, or as one-dimensional, with only a social or an environmental dimension, thus limiting the incorporation of CSR. For these reasons, CSR is not applied in strategic manner: managers fail to find a profitable relationship between CSR “soft” measures and corporate performance (Alpha Research, 2006).

The purpose of this thesis is to explore the relationship between CSR implementation and RES development to underpin CSR is not an expense but a needed investment for energy efficiency and long-term sustainability of Bulgarian RES. The thesis discusses CSR concept, its relation to sustainable development (SD) and RES. In the literature review on CSR, several arguments were provided to demonstrate that CSR creates possibilities for competitiveness and sustainability.

1.2. Problem Statement

This research aims to solve the problem of lacking awareness and interpretations of CSR benefits, providing sustainable development of the Bulgarian energy sector. The thesis explores the rationalities emphasizing why CSR must be implemented and advanced among Bulgarian RES managers. It deals with the business case of CSR in relation to corporate performance. In Bulgaria, evidences of CSR benefits to the ‘bottom line’ are insufficient to give economic reasons for managers to engage with CSR (CSD, 2011¹¹, Alpha Research, 2006). Thus, CSR is regarded as an expensive standard due to a lack of knowledge about the profitable relationship between CSR and corporate performance. Local government lacks development of CSR strategies and remunerations for responsible standards, leading to a narrow awareness of CSR. CSR implementation is limited because there is no business tradition of benefiting from social and environmental responsibilities (Alpha Research, 2006; Mantcheva et al., 2012). The relationship between CSR and improved business performance is not realized, because Bulgarian corporate

⁷ European Commission, (2013), ‘Sustainable and Responsible Business’, Europa Press Release.

⁸ Line, M. & Braun, R., (2007) ‘Baseline Study on CSR Practices in the New EU Member States and Candidate Countries’, UAB Kopa.

⁹ Alpha Research (2007), ‘Corporate Social Responsibility in Bulgaria – the New Challenges’, United Nations Development Programme, Country Office Bulgaria.

¹⁰ Alpha Research (2006), ‘Corporate Social Responsibility in Bulgarian Context’, conducted on the initiative of Global Compact UNDP and Bulgarian Charities Aid Foundation (BCAF).

¹¹ Center for the Study of Democracy (CSD), (2011), ‘Green Energy Governance in Bulgaria: at crossroads’, CSD.

managers expect short-term financial gains while CSR advantages pay back in the long-term (Alpha Research, 2006). Further, stakeholders are not included in corporate decision-making processes, meaning that CSR practices of stakeholder engagement are considered to be unprofitable (Alpha Research, 2006). Nevertheless, the role of CSR in solving economic and sustainable development problems has been broadly recognized on an international level (European Commission, 2011)¹². In this sense, CSR policies, enhancing efficiency, competitiveness, and sustainability of energy generation through RES development are highly appreciated. In (Directive 2009/ 28/ EC, EU experts argue CSR is a necessity in Bulgaria to resolve the following vital economic problems through RES development: energy shortage; 70% dependence on fossil fuels; 6% higher energy intensity than the average level of the EU; pollution (CO₂ emissions); increasing prices of fossil fuels; undeveloped EU requirements for secure, efficient, and environmentally sound energy supply; low competitiveness, etc. Thus, the thesis argues CSR benefits exceed corporate costs as long as CSR is understood strategically to be profitable in the long term. The main theoretical hypothesis is: strategic CSR implementation increases corporate social performance (CSP) of RES development in terms of energy efficiency, competitiveness, and sustainability.

1.3. Research Goal

The main goal of this thesis is to raise the awareness of CSR benefits, promoting RES in Bulgaria. The general objective of the thesis is to explain the value of CSR for RES development in Bulgaria. This will be achieved by finding as answer to the following research questions:

1. Can RES expand in Bulgaria?
2. How can CSR help with the RES introduction?

1.4. Hypotheses

The author of this thesis has formed the following hypotheses which are based on the research questionnaire:

1. What renewable energy projects have your organization implemented?

According to (CSD, 2010²⁷), RES share in the electricity production consists mainly of hydro energy. It is expected that RES companies would have implemented mainly hydro power projects.

2. What renewable energy projects are under development?

It is expected that RES companies would try to develop more photovoltaic and wind powers to stimulate RES development.

3. What is the understanding of CSR in your organization?

¹² European Commission, (2011), 'A Renewed EU Strategy 2011-14 for Corporate Social Responsibility'Brussels.

The terms good corporate citizenship, charity and social responsibility are used as synonyms in Bulgaria (Alpha Research, 2006). It means that the understanding of CSR in RES companies would be far from the international framework of CSR long-term development and sustainability. It is expected that mainly some aspects of CSR strategy would be developed in some RES companies, depending on corporate values, number of employees, reputation, profit, etc.

4. Does your business have internal obligations or guidelines to consider economic, social and environment responsibilities?

It is expected that managers would adopt CSR as a legal obligation or guidelines, aiming to improve corporate performance.

5. Does your business externally reports or promotes economic, social and environmental responsibilities ?

It is suggested that main factors for external reports and promotion of CSR would be the policies of the European Strategy for Sustainable Development, the Directive 2009/ 28/ EC, governmental regulations (standards ISO 1400, ISO 26000), investors, international companies or non-governmental organizations (NGOs).

6. Do social and environmental activities have been part of your policy?

It is expected that decisions for CSR activities have been taken voluntarily from the board of directors, while the policy for strategic responsible investment (SRI) in this area is either missing or developing.

7. Do users ask for environmental and/or socially-related activities when projects are developed?

It is expected that Bulgarian companies would have practice in both internal CSR responsibility for employees and their families and external responsibility for the society and the environment, while the strategic long-term investment of CSR strategy would be less recognized due to needs of expertise.

8. Do you implement socially and/ or environmental-friendly practices?

Bulgarian government lacks development of CSR strategy and remunerations for socially responsible behavior (Alpha Research, 2006). However, it is expected that RES companies develop CSR practices to contribute to sustainable development.

9. What barriers does your business meet in the implementation of a renewable energy project?

It is suggested that main barriers for RES would be financial and technological constraints.

10. Do social and/or environmental activities help to solve these barriers?

It is expected that the adoption of CSR policy would increase RES development in order to decrease the high cost of RES generation, while legal requirements would be imposed for competitive RES supply.

11. Do you cooperate with media, municipalities, NGOs or any other organizational networks to develop social and/ or environmental activities in your business?

It is suggested that RES companies would work together with municipalities and NGOs to incorporate social and environmental activities while media would be the main generator of information to society.

12. Do you know if Bulgarian companies, government organizations and NGOs have developed CSR strategy?

It is suggested that companies are aware of global national and international CSR practices but these successful models of CSR long-term investment are not applied in RES companies.

13. What is your opinion about the relations among business, authorities and non-governmental organizations in Bulgaria?

It is expected that RES companies, governmental authorities, and NGOs would cooperate to develop CSR practices further.

14. What are your suggestions to the Bulgarian businesses, authorities and non-governmental organizations for the renewable energy activities?

It is expected that the future of CSR would be in developing CSR policies and successful business models, suggested by the international corporations, and in the application of management policies for strategic responsible investment (SRI).

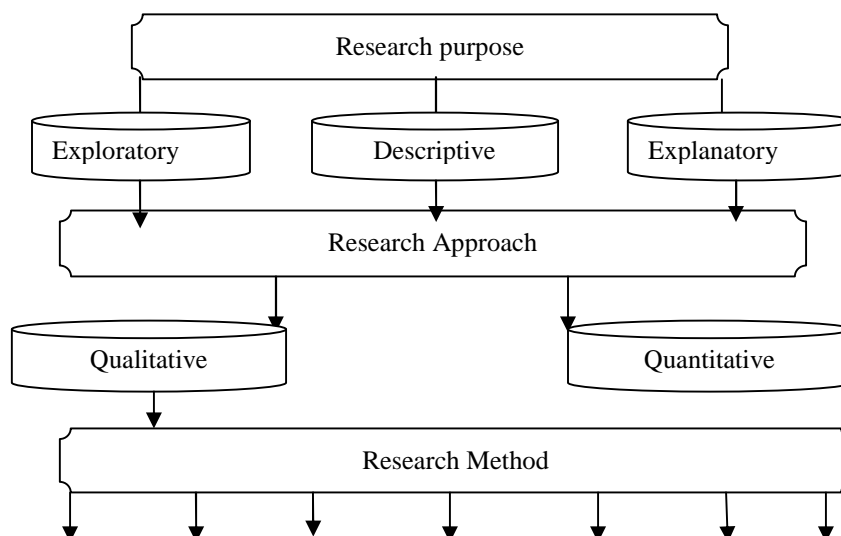
15. What are your suggestions for the following up research?

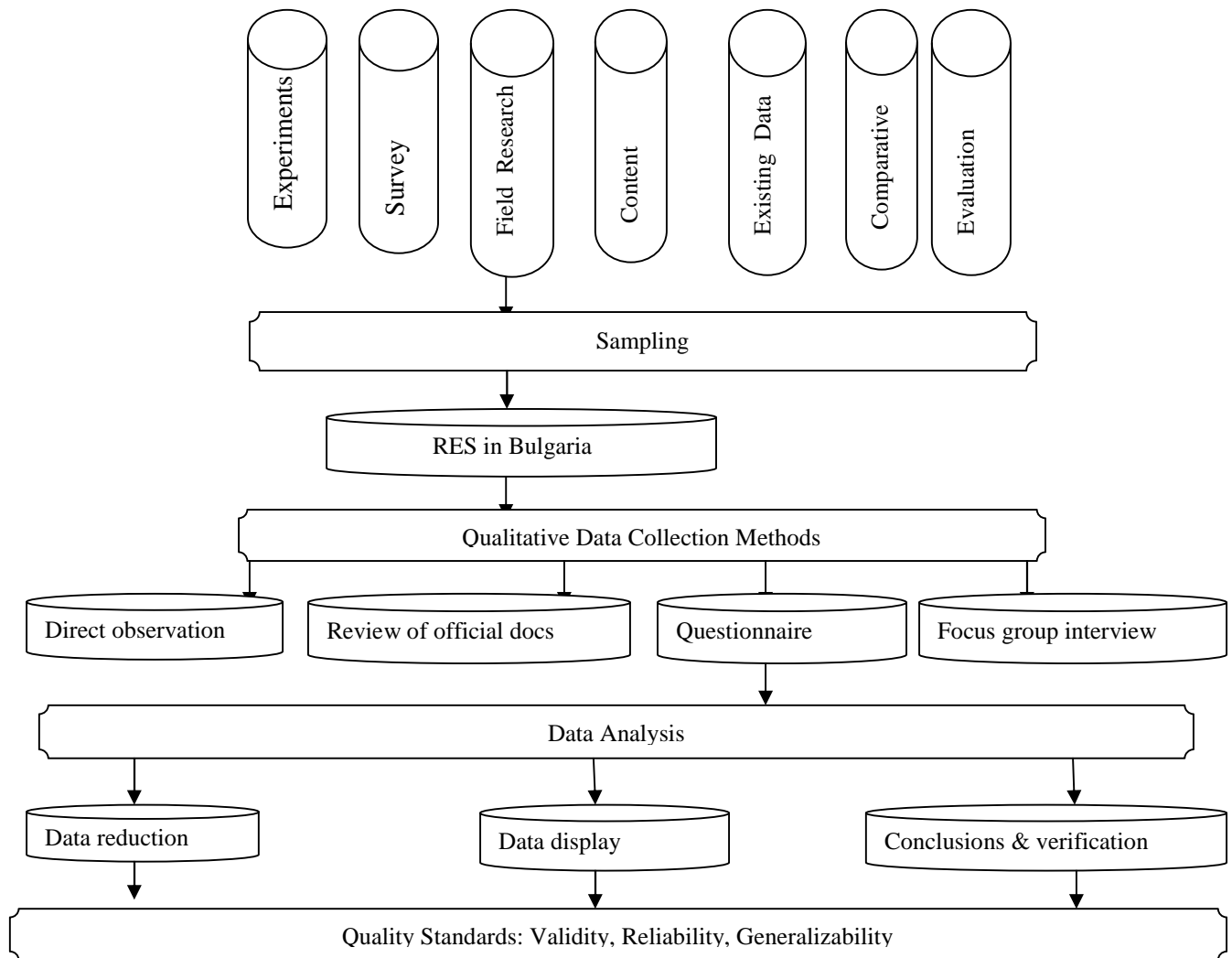
It is suggested that more research in CSR would be needed to explain the business case of CSR and its relation to RES development

Chapter II: Methodology

This chapter presents the thesis methodology. First the chapter discusses research purpose, approach and strategy. Then, research validity and reliability are analyzed.

2.1. Research Design





Source: Fuchs, M. & Hanning, C, 2001¹³; Babbie, E., 2010⁵¹

2.2. Research purpose

This thesis used exploratory, explanatory, and descriptive research designs. Firstly, the thesis has an exploratory purpose to examine the business case of CSR. Secondly, explanatory research gives reasons *why* RES companies should engage with CSR by explaining the complex values of CSR. Finally, the thesis applies descriptive research design to describe how CSR can improve RES supply in Bulgaria.

2.3. Research Approach

This thesis used qualitative approach because it aims to give a complete description of CSR phenomenon by interpretative analysis. The researcher had only rough knowledge in advance

¹³ Fuchs, M. & Hanning, C., (2001), 'Ethical Capability as a Competitive Advantage: Three Case Studies within the Volvo Corporation' Department of Business Administration and Social Sciences, Division of Industrial Marketing, Lulea Tekniska Universitet.

about CSR and its development in RES sector. That is why an in-depth understanding of the CSR values for RES companies was needed. The researcher did not prefer to use quantitative analysis because CSR is complex to be measured.

2.4. Research Method

This thesis used a field research method to provide a qualitative analysis of data by answering to the questions ‘why’ and ‘how’. This method was chosen because CSR is a phenomenon and the researcher is allowed to analyze it by a direct observation in the field. In fact, CSR could not be measured in other way. Further, the characteristic of the field research method, to test hypotheses by using several methods for data collection, was very important for the CSR analysis of this research. In this sense, the hypotheses of this thesis were analyzed by using articles as well as a survey for data collection.

2.5. Qualitative Methods for Data Collection

The researcher of this thesis used articles, questionnaires and open-ended interviews to collect data. These methods were combined to make the data analysis more reliable by involving different perspectives of CSR. The researcher did not use direct observation because CSR values should be perceived in order to be incorporated.

Following the aim of this thesis to spread the knowledge of CSR values for RES companies in Bulgaria, the field research should provide enough interviews with RES companies over Bulgaria. To this end, the researcher visited the International Technical Fair of Plovdiv from 26.09.2011 to 01.10.2011. At the fair, the main focus of the researcher was on the event International Exhibition on Energy and Environment. This exhibition provided a modern vision of doing energy business in SMEs by technologies and equipment for production and consumption of energy resources; innovative technologies for energy development and technologies for environmental protection. However, the fair was a unique opportunity for personal interviews with 9 RES companies, 3 NGOs and 7 business organizations. Additionally the researcher contacted by phone and e-mails with more organizations. In this way, 9 more corporate representatives interpreted the term CSR. Every interview was lasting about 20 minutes while the researcher was writing down the answers. Further, it was relevant for the researcher to take interviews from two of the exhibitors who won golden medals: the representatives of ‘MKM Product’ Ltd, using ‘Rich House’ technology to build houses-batteries as well as with the Bulgarian representatives of ‘AUTEV AG’, dealing with energy saving lighting ‘AuLed Road’. At the Plovdiv fair, ‘MKM Product’ Ltd signed three contracts totaling 185 million euro with Russian partners and won a certificate for quality standard ISO 9001:2008. Moreover, their ‘Rich House’ technology won three golden medals. On the other hand, the Bulgarian branch of the German ‘AUTEV AG’ was awarded with a golden medal and diploma for quality of energy saving lighting.

The thesis conducted open-ended interviews at the Technical Plovdiv Fair and sent open-ended questionnaires online. The researcher has chosen open-ended questions because they are based on

conversation between the researcher and the respondent. In this sense, the researcher had the opportunity to explore in-depth the views and values of the respondents. Moreover, the open-ended interviews are flexible and the researcher could explain the questions further. (The questions of the interviews are attached in the appendances).

2.6. Data analysis

This thesis used Miles & Huberman (1994) framework for data analysis, following data reduction, data display, and conclusion drawing and verification. Initially, the researcher gathered scientific literature, tested theoretical models, their practical applications and causal relations. The validity of this information was examined with interviews in the research field. Then, the researcher reduced the collected information by making it focused on the research questions and hypotheses. In data display process, the researcher reorganized the collected information to make it more comprehensive and visible. Finally, the conclusions were based on theoretical models and recommendations which enhanced their verification.

2.7. Quality standards: Validity, Reliability and Generalizability

The thesis followed validity and reliability standards by explaining clearly the steps of the research methodology. To begin with, the method of qualitative data analysis is based on an open-ended questionnaire. To meet the quality standards, this questionnaire has been checked for ambiguous, ill-defined questions and validated by the supervisor of this thesis prof. Yoram Krozer. In the process of conducting the interviews, the answers were written down and sent back to the interviewees for their verification. Further, the researcher checked the reliability of sending on-line questionnaires to some companies and governmental institutions by calling them to confirm the e-mails were received as well as respondents were willing to provide answers on the given deadline. To make the questionnaire more reliable, the Bulgarian Wind Energy Association (BGWEA) published the questionnaire in its monthly newsletter. The interviews were carried on in Bulgarian language because the research was held in Bulgarian study field where the official language is Bulgarian. In this sense, there were no language barriers to provoke confusion and wrong interpretation. To the purpose of this thesis, the researcher translated the collected data into English, keeping the original meaning of the interviews.

The aim of the research was to gather in-depth information about CSR development in Bulgarian RES companies in order to build up a framework on how CSR can increase Bulgarian RES competitiveness.

Chapter III: Conceptual Framework

This section discusses definitions of CSR, its relation to triple-bottom-line and sustainable development.

CSR concept

In the 21st century, CSR is an integrative part of business strategy for long-term sustainable business (Dr. Visser, W., 2013¹⁴, Low, Jonathan, 2013¹⁵, KPMG, 2011¹⁶). A number of definitions exist for CSR. The European Commission defines CSR as: ‘A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.’ According to the World Business Council for Sustainable Development (WBCSD), ‘Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.’ Carroll (1979) frames the understanding of CSR into four types of social responsibilities to describe what CSR is. Carroll’s model of CSR (1991) classifies company’s CSR in a pyramid to prioritize corporate responsibilities as per their meaning in regard to their economic, legal, ethical and philanthropic responsibilities. The four layers of the pyramid explain CSR interpretation in companies as reasons for their engagement with CSR. According to Carroll, the first layer of corporate CSR implementation is the understanding of CSR as a firm’s *economic responsibilities* to be competitive and gain profits. The second layer of CSR incorporation is based on the firm’s perception of CSR as *legal responsibilities* to governmental regulations. The third layer of CSR adoption is companies’ *ethical responsibilities* “to do what is right” and to be good to stakeholders. The last layer of CSR engagement is the understanding of CSR discourse as corporate *philanthropic responsibilities* to be a good corporate citizen for the benefit of both firm and society (figure 2). Therefore, the understanding of CSR is not that of narrow self-interest defined by M. Friedman (1970)¹⁷ whereby the only social responsibility of business is the increase of its profits. On the contrary, strategic CSR confirms the interdependent relationship between business and society, in order to contribute to a company’s profit, by meeting the clients’ needs. Porter & Kramer (2006) believe that CSR is increasingly necessary to competitive performance and should be seen as creating shared value through social responsibility rather than being viewed as merely damage control or a PR campaign. Scholars confirm that the profitable role of CSR is in corporations’ ability to apply win-win solutions under the conditions of today’s economic crisis and problems with sustainable development. Win-win solutions encourage CSR activities to make positive contributions to

¹⁴ Dr. Visser, W., (2013), ‘Visions of the Future: CSR, Sustainable Business & Capitalism in 2020’, link at: <http://www.csrwire.com/blog/posts/1007>

¹⁵ Low, Jonathan, (2013), ‘From CSR to Purpose Driven Business in 2013: Semantics or Substance?’, link at: <http://www.csrwire.com/blog/posts/761-from-csr-to-purpose-driven-business-in-2013-semantics-or-substance>

¹⁶ KPMG, (2011), ‘KPMG International Survey of Corporate Responsibility Reporting’.

¹⁷ Friedman, M. (1970), ‘The Social Responsibility of Business is to Increase its Profits’, The New York Times Magazine

society and to generate higher profits and a competitive advantage for corporations. (Porter & Kramer, 2006) formulate this idea in the question: ‘how might you address social needs in ways that create shared value – a meaningful benefit for society that adds to your company’s bottom line?’

The author of this thesis uses Hopkins’s definition of CSR to imply responsibilities to stakeholders and to the environment are essential for achieving advanced corporate development and future progress: “CSR – oriented firms are supposed to embrace corporate citizenship and adopt as their goal sustainable development. They must pursue sustainable development in conjunction with an array of different stakeholders – in fact, they should buy into multi-stakeholder engagement. This notion of sustainable development also does not have one good, accepted definition. CSR advocates call it working to meet the triple-bottom-line: financial, environmental and social (Hopkins, M. 2007).”

CSR and Sustainable Development (SD)

The thesis relates CSR to the context of sustainable development (SD) to imply corporate social and environmental responsibilities are as important for high corporate performance as its economic responsibilities. The idea of the SD concept is defined by the World Commission on Environment and Development (WCED) as a development that meets the needs of the present generation, without compromising the needs of future generations (Brundtland Commission report, 1987). At a corporate level, SD refers to economic, social and environmental responsibilities of businesses known as the ‘triple-bottom-line’ concept or corporate sustainability (Elkington, 1998, Van Marrevijk, 2003). In this sense, SD is about implementing sustainable values in corporate operations to meet stakeholder needs achieving high business performance and long-term development (PriceWaterhouseCoopers in Hopkins, M., 2007⁹). SD development at a corporate level is based on CSR principles, policies and standards. The thesis perceives CSR as the corporate contribution to SD that is needed to promote RES in Bulgaria, such as:

- Improved energy generation and consumption (‘Using less energy, which means improved energy efficiency in energy generation and consumption’)(MIET, 2008)¹⁸;
- Improved energy mix (‘Using cleaner energy, which means an improved energy mix by increasing the share of low-carbon energy’) (MIET, 2008)¹⁷;
- Improved energy technologies (‘Accelerated technological progress, including the introduction of new energy technologies (clean coal)’)(MIET, 2008)¹⁷.

¹⁸ Ministry of Economy, Energy and Tourism of the Republic of Bulgaria (MIET), (2008), ‘National Energy Strategy of the Republic of Bulgaria by 2020’

IV. Literature review

The aim of this section is to explore why companies should engage with CSR, according to literature review. To this end, the relationship between CSR and corporate performance will be examined. Finally, values of CSR for RES will be discussed to explain how CSR can improve RES competitiveness in long-term.

4.1. General and Advanced approaches to the business case of CSR

The business case of CSR has been broadly discussed in regard to bottom line benefits of CSR investment. Literature analyses about the relationship between CSR and corporate financial performance (CFP) are contradicting in regard to a general and an advanced approach to how corporate value is created. The general approach narrows value creation to the economic rationale where CSR activities are against corporate interests (Friedman, M., 1962; Davis, 1973; Hayek, 1969). The advanced approach perceives value creation in a broader sense by including CSR activities in core business strategies to create shareholder value and maximize corporate profit (Freeman et al, 2010; Kurusz et al, 2008).

(Kurusz, E. et al, 2008) states the general approach to CSR is based on the following theories: the trade-off hypothesis, the available funds hypothesis (known as slack resources theory), and the enlighten value maximization hypothesis. Firstly, the trade-off hypothesis suggests corporate value is generated through the self-interest of shareholders to maximize financial profit (Friedman, M., 1970), interpreting CSR as not a business concern. In this sense, the trade-off between corporate performance and CSR is negative because CSR minimizes shareholder profit by trying to solve social problems, being not an issue of corporate expertise (Friedman, 1970; Clotfelter, 1985 in Eccles et al, 2011) or to invest in social and environmental policies, beneficial only for personal interests of employees and managers (Smith, 2006), but not strategic to a firm's performance or required by any governmental regulation. In this sense, CSR damages shareholders' wealth. Secondly, the available funds hypothesis suggests CSR activities are additional activities to value creation, therefore, corporations may invest in CSR as long as additional assets are obtained. (Kurusz et al, 2008¹⁹) argues available funds theory concerns mainly the philanthropic responsibilities of Carroll's categories of CSR. It means that CSR is applied as a costly standard, a PR campaign or 'greenwashing' practices in order to conciliate NGOs and civil society. Thirdly, the enlightened value maximization hypothesis suggests value maximization is based on the managerial self-interest to increase personal compensation of short-term financial gains by minimizing social and environmental costs. (Eccles et al, 2011¹⁰) argues value creation regards social and environmental activities as a cost as long as managerial compensation system is based on short-term financial metrics. However, the general approach to CSR, concerning traditional firms, has given theoretical grounds for the advanced development of the business case on corporate level. Recently, empirical researches have proved the integration of CSR activities in core business strategies outperforms traditional firms in the long-term by identifying sustainable corporate model (Eccles, R. et al, 2011¹⁹).

¹⁹Eccles, R. et al., (2011), 'The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance', Harvard Business School.

The advanced approach of CSR discusses the values of the *sustainable corporate model* presented by Eccles et al, (2011¹⁸). The aim of this model is to give evidence why sustainable firms (called ‘High Sustainability’ firms) outperform traditional firms (called ‘Low Sustainability’ firms) in order to advance the business case of CSR. According to (Eccles, R. et al, 2011¹⁰), sustainable corporate model can be characterized by:

- **a culture of sustainability** – suggests the integration of social and environmental policies in core business activities outlines corporate values and norms for improved corporate performance through CSR activities.
- **a distinct corporate governance structure** – accredits environmental and social objectives to corporate board of directors. It gives additional management compensations for sustainability metrics in order to ensure sustainable performance.
- **a distinct stakeholder engagement** – implies that a wide range of stakeholders are engaged in corporate decision-making to increase shareholder value by meeting societal needs and expectations (Freeman, 1984²⁰; Freeman et al, 2007 in Eccles, R. et al, 2011¹⁸).
- **a distinct stakeholder management** – are those management practices that assure trust, cooperation and long-term viability in contracting with key stakeholders.
- **a long-term superior performance** - is a result of the successful management of the long-term relationships with stakeholders.

This model implies that ‘High Sustainability’ firms incorporate CSR to gain competitive advantage.

4.2. Modes of Value Creation

The competitive advantage of CSR in value creation has been recognized in the following ways: CSR policies for corporate transparency and trust, CSR processes for increased stakeholder value in the long-term (Freeman, 1984²¹) and CSR practices for direct benefits to the bottom line, such as: innovation, efficiency, reputation, etc. (Martinuzzi, A. et al., 2010²²). However, the understanding of the business case of CSR is complex. A few narrative analysts (Ullmann, 1985²³; Aupperle et al., 1985²⁴; Wood, 1991²⁵; Waddock & Graves, 1997²⁶; McWilliams &

²⁰ Freeman, (1984), ‘Strategic Management: A Stakeholder Perspective’, Boston, United States.

²¹ Freeman, E., (1984), Strategic Management: A Stakeholder Perspective, Boston, MA: Piman, United States.

²² Martinuzzi, A., Gisch-Boie, S. & Wiman, A., (2010), ‘Does Corporate Responsibility Pay Off? Exploring the Links between CSR and Competitiveness in Europe’s Industrial Sectors’, Research Institute for Managing Sustainability (RIMAS), Vienna University of Economics and Business, Vienna Austria.

²³ Ullmann, A., (1985), ‘Data in Search of a Theory: A Critical Examination of the Relationship among Social Performance, Social Disclosure, and Economic Performance’. Academy of Management Review, Vol. 10, p. 540-577.

²⁴ Aupperle, K., Carroll, A. & Hatfield, J., (1985) ‘An Empirical Investigation of the Relationship between Corporate Social Responsibility and Profitability’. Academy of Management Journal, Vol. 28, p. 446-463.

²⁵ Wood, D. (1991), ‘Corporate Social Performance Revisited’. Academy of Management Review, Vol. 16, p. 691-718.

²⁶ Waddock, S. & Graves, S., (1997), ‘The Corporate Social Performance – Financial Performance Link’. Strategic Management Journal, Vol. 18, p. 303-319.

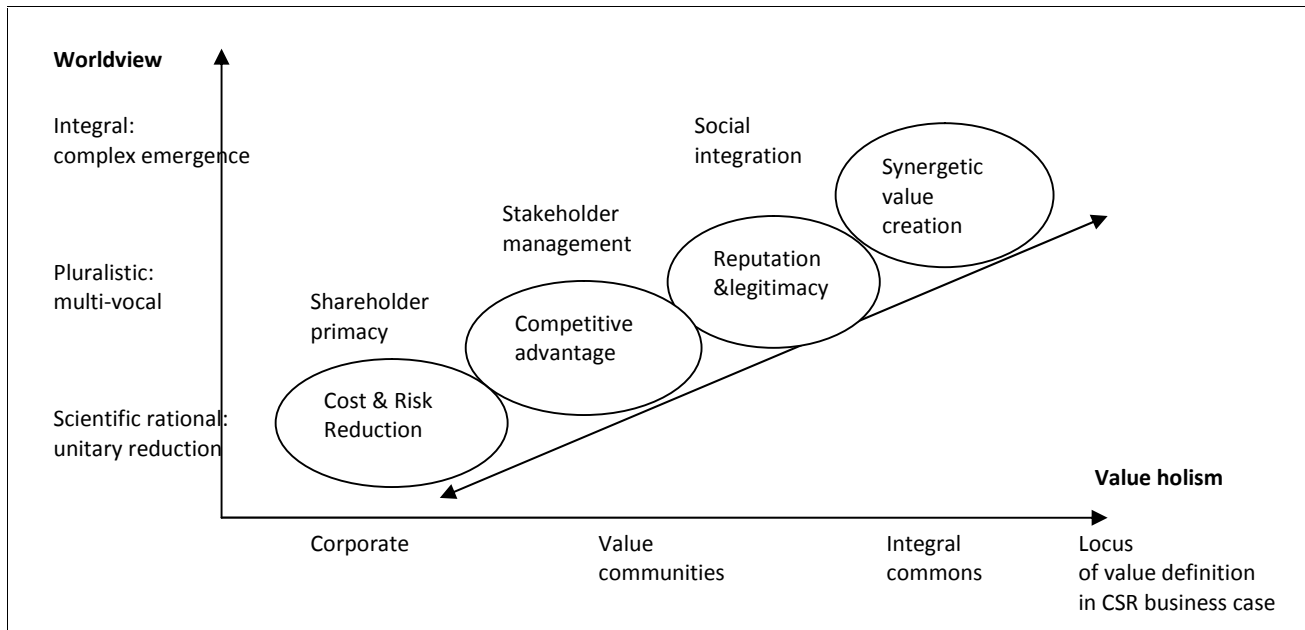
Siegel, 2001²⁷;) have suggested theoretical explanations of the relationships between CSP and CFP but have neglected to give a clear, consistent evidence. The thesis adopts the model of Kurusz et al., (2008²⁸) in Carroll & Shabana, (2010²⁹) to advance the perception of CSR business case by dividing CSR into four categories of value creation: '1) cost and risk reduction; 2) gaining competitive advantage; 3) developing reputation and legitimacy; and 4) seeking win-win outcomes through synergetic value creation' (figure 2.) The model suggests an integrative approach to CSR values should be promoted to give a rationale for the business case of CSR. In this sense, the business rationale is contained in the integrative corporate values in conformance with the societal demands, developed respectively through the approaches of 'stakeholder management' and 'social integration' (fig. 2.). The model aims to strengthen the role of business in society as well as to give market arguments for developing the business case of CSR. (Kurusz, 2008¹³) states the application of the model would enhance the business case for CSR by: acknowledging the complex relation between business and society (complexity perspective); building an integrative capacity for holistic approach (integrative perspective); encouraging new business models for value creation (pragmatist perspective). This thesis uses (Kurusz et al., 2008¹³) model to argue that CSR benefits make economic sense, although going beyond a purely economic rationale, CSR creates tangible values that improve corporate performance and success in the long-term. In this sense, the thesis supports Porter, M. & Kramer., M., (2011¹¹) arguments that CSR creates economic value by developing shared values with society.

Figure 1. Four modes of value creation in the CSR business case (Kurusz et al., 2008¹⁹)

²⁷ McWilliams, A. & Siegel, D., (2001), 'Corporate Social Responsibility: A Theory of the Firm Perspective'. *Academy of Management Review*, Vol. 26, p.117-127.

²⁸ Kurusz, E., Colbert, B. & Wheeler, D., (2008), 'The Business Case for Corporate Social Responsibility', in Crane A., McWilliams, A., Matten, D., Moon, J., & Siegel, D., *The Oxford Handbook of Corporate Social Responsibility*, Oxford, Oxford University Press, p. 83-112.

²⁹ Carroll, A. & Shabana, K., (2010), 'The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice', *International Journal of Management Reviews*, Blackwell Publishing Ltd and British Academy of Management.



4.2.1. Cost and Risk Reduction

(Kurusz et al., 2008¹⁹) uses *cost and risk reduction value* of the business case of CSR to suggest that successful CSR activities improve corporate performance through cost and risk reduction. In cost and risk reduction perspective, the focus of the internal CSR values is on using corporate products and services efficiently in order to increase shareholder profit. External CSR values expand the perception and understanding of the business environment in order to decrease costs and risks by creating social values. Carroll & Shabana (2010¹⁴) divide Kurusz et al., (2008¹⁹) CSR activities of cost and risk reduction in:

- CSR policies and practices for equal employment opportunities (EEO)
- CSR policies and practices for energy saving and environmentally sound production
- CSR policies and practices for community relation management

CSR activities for (EEO) – the social aspect of triple bottom line/sustainability

Cost and risk reduction may be achieved through CSR policies for EEO that increase human resource performance (Commission report, 2008). In this sense, CSR policies for EEO should be perceived as the social aspect of the triple bottom line. (Perrini, F. et al, 2009³⁰, Cochran, 2007³¹) argue CSR policies improve employee relations and increase corporate performance by reducing absenteeism and turnover. (Bowie & Dufee, 2002 in Kurusz et al, 2008¹³) state CSR increases morality and reduces consumer boycotts, unexpected losses, increased labor costs, market capitalization, etc. In this sense, CSR policies for fair and equal treatment create loyalty, trust and long-term relations with stakeholders. Indeed, CSR should be implemented in developing

³⁰ Perrini, F., Russo, A., Tencati, A. & Vurro, C., (2009), 'Going Beyond a Long-Lasting Debate: What is Behind the Relationship between Corporate Social and Financial Performance?', SPACE and CSR Unit, Department of Management, SDA Bocconi School of Management, Milan, Italy.

³¹ Cochran, P., (2007), 'The Evolution of Corporate Social Responsibility', Business Horizons, vol. 50, p. 449-454.

countries where employees' work is cheap while labour and environmental policies are inadequate or not required by governmental regulations. There is evidence that CSR social and environmental audits in developing countries have decreased problems with: poor working conditions at the Bangladeshi company Fashion Victims, producing for Asda, Primark and Tesco retailers in Britain; the abuse of young women employees from Bangladesh and India at Walmart and JC Penny suppliers in Jordan; the sweatshop conditions for migrant employees from China, Vietnam, India, Indonesia, etc. at Hytex Apparel, which is a Nike representative company in Malaysia; the forced child labour at the US retailer Gap in India (Chhabara, R., 2010³²). Furthermore, it has been found that CSR can resolve labor deficit, encourage and attain high quality staff in SMEs (European Commission, 2005 in European Commission Report, 2009¹⁶). Orlitzky et al., (2003³³) have analyzed 52 studies of previous research on CSR and have used meta analysis to prove that CSR and CFP are positively related. The meta analysis has showed that the correlation between corporate social performance and CFP are statistically higher than the correlation between corporate environmental performance and CFP. Corporate managers should perceive the benefits of 'CSR activities for EEO' as the social strand of sustainable business development.

CSR activities for energy saving and environmentally sound production

Cost and risk reduction can be achieved through CSR environmental policies (Berman et al, 1999; Dechant et al., 1994 in Carroll & Shabana, 2010¹⁴). In this sense, CSR includes measures for reduced energy consumption and efficient usage of material inputs. (Miles & Covin, 2000 in European Commission Report, 2009¹⁶) argue that CSR cost for environmental standards is an investment in innovation, new technologies leading to lower energy consumption and high cost savings in time. In fact, CSR environmental policies are the environmental strand of the triple-bottom-line. In order to prove CSR efficiency, Porter & Kramer (2006) declare that DuPont, the world's third largest chemical company, has saved \$2 billion since 1990 from the reductions of energy use. McDonald's changes in wrapping material for food have decreased its waste by 30%. Walmart, for instance, has saved \$200 million with CSR by reducing packaging and increasing supplies as well as by cutting '100 million miles from its delivery route in 2009' (Porter, M. & Kramer, M., 2011¹¹). (Jenkins, 2006 in European Commission Report, 2009¹⁶) provides evidence that CSR increases cost savings in SMEs. On the other hand, petrol companies like British Petroleum are an example that CSR environmental activities reduce risks of negative environmental impact and damaged reputation (British Petroleum, 2010³⁴). Managers should realize that CSR environmental policies are the environmental strand of sustainable business development. The promotion and implementation of these policies is crucial for long-term business development.

CSR activities for community relation management

³² Chhabara, R., (2010), 'Supply Chain Briefing Part 1: Ethical Sourcing – The Responsible Chain Gang'. Communications & Reporting section of Ethical Corporation's Magazine; at:

<http://www.ethicalcorp.com/communications-reporting/supply-chain-briefing-part-1-ethical-sourcing-responsible-chain-gang>

³³ Orlitzky, M., Schmidt, F. & Rynes, S., (2003) 'Corporate Social and Financial Performance: A Meta Analysis'. Organization Studies, Vol. 24, p. 403-411.

³⁴ British Petroleum (BP) Sustainability Review 2010 at: bp.com/sustainability

CSR policies for managing stakeholder relationships may reduce costs and risks (Berman et al., 1999 in Carroll & Shabana, 2010¹⁴). That is to say, CSR engages all stakeholders in a common dialogue in order to ensure safer business with high revenues by meeting stakeholders' demands (Freeman, 1984¹¹). Trying to meet the needs of different stakeholders, CSR develops the economic, social and environmental strand of the triple-bottom-line. For example, (European Commission Report, 2009¹⁶) argues that even cost-cutter firms are required to apply economic, social and environmental standards at a basic level in order to meet governmental and stakeholders' demands of a good corporate citizen. Meijer and Schuyt (2005) in European Commission Report, 2009¹⁶) provides evidence that a major telecommunications firm cooperates with NGO to implement required environmental standards for less risks and governmental taxes. Moreover, Unilever and Oxfam have cooperated in a common research to assess their entire value chains. By finding the corporate positive and negative footprints on society, the companies would take decisions to increase corporate profits and lower the costs (Owen, D., 2007³⁵). Therefore, stakeholder relationships reduce cost and risks of biased businesses, corporate taxes and legal constraints. General Electric (GE), for instance, has donated between \$250 000 and \$1 million to underperforming public high-schools for the period of five years. As a result, an independent study has showed improvement with around 30% of graduating students. In this sense, GE has served a new social need to expand its market while improving relations with local governments and NGOs to reduce corporate taxes (Porter & Kramer, 2006). Thus, CSR enhances partnerships with governmental institutions, NGOs and companies to fulfill a range of social and business demands.

Corporate managers should realize the importance of CSR activities for community relation management, considering equally economic, social and ecological aspects of the triple-bottom-line. In this sense, CSR is a synonym of SD at corporate level.

4.2.2. Competitive Advantage

(Kurusz et al., 2008¹⁹) suggests *competitive advantage value* of the business case of CSR consists of CSR activities that increase corporate competitiveness. Further, Carroll & Shabana (2010¹⁴) declare CSR activities for competitive advantage are based on differentiation strategy that creates unique advantage. They group Kurusz et al. (2008¹⁹) competitive CSR activities into:

- EEO policies
- Customer and investor relations programs
- Corporate philanthropy

CSR policies for Equal Employment Opportunities (EEO)

In differentiation perspective, CSR policies for EEO may build a corporate competitive advantage, making corporate brand and image singular, by creating unique CSR values. It means that CSR policies for EEO can be financially sound by developing the social strand of the triple-bottom-line. In 2006, a CSR survey by the Society for Human Resource Management (SHRM)

³⁵ Owen, D., (2007), 'Beyond Corporate Social Responsibility: The Scope for Corporate Investment in Community Driven Development'. Social Development Department, World Bank Report No. 37379 – GLB.

shows that explicit CSR statements of EEO policies have created value that increases employees' morale (50%), corporate loyalty (41%), retention (29%), workers' recruitment (25%), and productivity (12%) (SHRM, 2007 in Strandberg, C., 2009³⁶). In 2007, Scotiabank survey has found that 70% of Canadian employees prefer to change a job than to work in an organization, not following CSR values. Another example of the importance of CSR unique values is that CSR has been highly rated for increasing employees' satisfaction and corporate competitive advantage from 60% of enquired graduates in Accenture survey in 2004 (Strandberg, C., 2009²⁷). A Stanford University survey on CSR in 2003 has found that most business graduates would relinquish around \$13,700 to work in a CSR company. In fact, issuing specific EEO policies may reduce sweatshop conditions, inadequate wages as well as strengthen the brand, corporate image, and reputation (Smith, 2005³⁷). Thus, CSR policies for EEO address strategically both corporate and social problems to build a superior competitive advantage for companies (Carroll & Shabana, 2010).

Corporate managers should realize that corporate value could not only be enhanced through profit maximization but by including the interests of firm's environment and stakeholders (CSR policies for EEO) in corporate decision-making. It means that CSR is the social and environmental dimension of SD.

Customer and investor relations programs

In customers' perspective, CSR activities increase customers' loyalty and demand by influencing on the quality of products and services. In investors' perspective, CSR activities enhance investment in the long-term, known as SRI. Mandl and Dorr (2007)³⁸ give evidence CSR improves customer demand and enhances customer loyalty. Longo et al. (2005)³⁹ shows Italian SMEs companies engage with CSR to increase customers' commitment. Empirical results from Spanish banking sector show consumers make decisions about mortgage and deposit in saving banks, having in mind other features than the price which improve corporate profits and competitiveness (Francisco, J. et al., 2006⁴⁰). Erasmus University researchers in cooperation with APB Investments and Maastricht University have presented evidence, US companies categorized as the 'most eco-efficient' considerably outperform the 'less eco-efficient' companies. The study have tested five criteria of eco-efficiency ('risks resulting from preceding actions'; 'operating risk'; 'sustainability and eco-efficiency risk'; 'managerial risk efficiency'; 'environmentally-related strategic profit opportunities') to prove that activities of socially responsible investment (SRI) add significant value and lower the risks with 6% for the 'most eco-efficient' investors than their 'less eco-efficient' counterparts (Derwall, J. et al., 2004⁴¹). Even earlier, in the Spring of

³⁶ Strandberg, C., (2009), 'The Role of Human Resource Management in Corporate Social Responsibility', Principal Strandberg Consulting, Canada.

³⁷ Smith, T., (2005), Institutional and Social Investors Find Common Ground, *Journal of Investing*, 14, p.57-65.

³⁸ Mandl, I. & Dorr, A., (2007) 'CSR and Competitiveness. European SMEs' Good Practice', European Report, Vienna.

³⁹ Longo, M., Mura, M. & Bonoli, A., (2005), 'Corporate Social Responsibility and Corporate Performance: The Case of Italian SMEs', *Corporate Governance*, vol.5, p. 28-42.

⁴⁰ Francisco, J., Callado Munoz & Natalia Gonzales, (2006) 'Does it Pay to be Socially Responsible? Evidence from Spanish Retail Banking Sector', Department of Economics, University of Girona.

⁴¹ Derwall, J., Gunster, N., Bauer, R. & Koedijk, K., (2004), 'The Eco-Efficiency Premium Puzzle', *Financial Analysts Journal*, Vol. 61, No. 2, p. 51-63.

2000 the Financial Analysts Journal has shown that SRI ensures higher funds and minimal risks: 14.19% vs. 13.23% according to S&P500 index (Eisenhofer, J. & Levin, G., 2006⁴²). In 2003, the Journal of Accountancy has proved in two empirical studies that SRI increases shareholder value (Eisenhofer, J. & Levin, G., 2006⁴⁴). Therefore, CSR activities increase corporate competitive advantage by creating relations with customers and investors.

Corporate managers should recognize CSR correlates with SD at corporate level to ensure long-term investment (SRI) and sustainable business development.

Corporate philanthropy

Bruch, H. & Walter, F.⁴³ claim corporate philanthropic activities create competitive advantage for companies when the philanthropic actions (CSR) fit with corporate core competencies. Porter & Kramer, (2006) suggest that companies should address strategically those social initiatives that create unique value for both companies and society. For example, Toyota has gained a competitive advantage by developing environmentally protective hybrid engine, emitting only 10% pollutants while saving much of the consumed gas. This unique value has turned Toyota into the Car of 2004 Year in Motor Trend magazine, which has made the other car counterparts to license the engine (Porter & Kramer, 2006). Thus, Toyota has gained a unique position on the market by providing lower costs and better services of a new standard for technology. Porter & Kramer (2002) give example of a strategic philanthropy with Cisco Systems. The IT company has developed 'Cisco Networking Academy' program to train high school graduates for computer network administrators. In this sense, 'Cisco Networking Academy' is an opportunity for the company to attract new employees while securing a job to high school graduates. Therefore, CSR activities develop corporate contributational programs to achieve both economic and social profits. Managers should understand the strategic role of CSR policies for higher social and corporate performance.

4.2.3. Developing Reputation and Legitimacy

In fig. 2 Kurusz et al. (2010¹⁹) implies that among the values of the business case of CSR are reputation and legitimacy. They make corporate values corresponding to social goals and values. In legitimate perspective, a business is legal when it meets its social responsibilities (Carroll et al., 2011⁴⁴). The role of reputation is to prove to stakeholders that CSR activities meet customers' needs and values with high standards. Carroll and Shabana (2010) group Kurusz et al., (2008¹⁹) social and environmental activities for high reputation and legitimacy into:

- Corporate philanthropy
- Corporate disclosure and transparency practices

Corporate philanthropy

⁴² Eisenhofer, J. & Levin, G., (2006), 'Corporate Accountability', The Bureau of National Affairs, Vol. 3, No. 57, Washington.

⁴³ Bruch, H. & Walter, F., (2005) 'The Keys to Rethinking Corporate Social Philanthropy', MIT Sloan Management Review, Vol. 47, No. 1, p. 48-56.

⁴⁴ Carroll, A. & Buchholtz, A., (2011), 'Business and Society: Ethics, Sustainability and Stakeholder Management', 8th Edition, South Western Cengage Learning, p.305.

Corporate philanthropy is perceived as management of CSR activities for building legitimization and reputation (Carroll & Shabana, 2010). Issues of bankruptcy, corporate scandals of braking social or environmental values, global economic crisis have increased the importance of corporate activities for high reputation and legitimacy. For example, Enron's accounting fraud, British Petroleum oil spill in the Gulf of Mexico or Fukushima Daiichi nuclear disaster have lead to damaged corporate reputation and loss of legitimacy. In these cases, CSR is the solution for the corporations, having negative social or environmental performance, by developing a business culture of moral values and sustainability.

Corporate managers should perceive philanthropic activities (CSR) as a strategic policy to increase corporate reputation and legitimacy.

Corporate disclosure and transparency practices

CSR activities facilitate the disclosure of corporate information, referred to a sustainability reporting. Carroll & Shabana (2010) argue sustainability reporting increases corporate legitimacy, transparency and reputation by presenting publicly information about corporate economic, social and environmental performance. The United Nations Global Compact (UNGC) has developed a Global Reporting Initiative (GRI) as a social audit control and guidance for developing CSR activities. A study analysis of interviews with ten Swedish companies have found that GRI is highly appreciated for providing transparency about environmental impacts of corporate products and for indicating who the stakeholders to take responsibilities are. Further, Swedish corporate representatives claim GRI facilitates access to information and assures both external legitimacy to society and internal legitimacy to stakeholders (Hedberg, C. & Malmberg, F., 2003⁴⁵). Therefore, corporate managers should perceive corporate disclosure and transparency practices of CSR and GRI guidelines as a potential for enhancing visibility, control of the triple bottom line and sustainability.

Managers should perceive CSR as a voluntary practice of a corporate governance policy that increases companies' transparency, accountability, investors' interest and profits.

4.2.4. Synergistic Value Creation

(Kurusz et al., 2008) argues that CSR activities create synergistic value which is part of the business case of CSR. That is to say, CSR creates a symbiotic relationship between business and society: corporate success strengthens social success. Carroll & Shabana, (2010) group these CSR activities into:

- charitable giving to education
- stakeholder engagement

Charitable giving to education

It includes CSR activities that create shared value by investing in social issues. As a result, Charitable giving to education increases corporate competitiveness based on the shared-value

⁴⁵ Hedberg, C. & Malmberg, F., (2003), 'The Global Reporting Initiative and Corporate Sustainability Reporting in Swedish Companies'. Corporate Social Responsibility and Environmental management, Vol. 10, p. 153-164.

relation. For example, Microsoft Corporation has invested \$50 million in the American Association of Community Colleges (AACC) to face their information technology (IT) challenges for the period of five years. Microsoft has contributed money, IT products and employees volunteers to American community colleges in order to standardize their IT curriculums and teach professional IT development programs in IT faculty institutes. Further, Microsoft has solved its shortage of IT workers by finding a job to newly high-school graduates. In this sense, Microsoft has created a shared value with community colleges to solve their problems and increase corporate competitiveness (Porter and Kramer, 2006). Also, Marriott International, a leading lodging company, ensures professional training to chronically unemployed job applicants. Marriott's employees' training program is a result of a partnership with local NGOs to reduce unemployment. Analyses show that high percent of the trained employees in the program find a job at Marriott. The final results are both a benefit for the local community and a cost reduction for recruiting employees in Marriott (Porter & Kramer, 2006). Thus, shared-value strengthens corporate competitiveness by binding social problems to company's core competencies.

Charitable giving to education implies that managers should perceive CSR as the social strand of SD which increases the living standard by increasing corporate profit.

Stakeholder engagement

In synergistic perspective, these are CSR activities that increase corporate performance by stakeholder engagement. The objective is to engage stakeholders in a dialogue in order to provide companies with advice for improving corporate performance. Nexen is an example of a company with successful stakeholder engagement. The company has established an Expert Stakeholder Advisory Group that has helped to improve the corporate annual sustainability report by recommendations for reducing environmental, social and governance (ESG) risks. The advices, provided by the stakeholder group, have ensured credibility in CSR reporting while the company's CSR report has been highly awarded. Moreover, Co-operators company has found Community Advisory Panels (CAPs) in Canada to increase corporate performance by applying stakeholder advices, knowledge about corporate policies, practices, products and services (CBSR, 2008⁴⁶). Hence, stakeholder engagement is an effective way for companies to increase corporate performance by working collaboratively and meeting stakeholder demands.

Managers should realize CSR is a stakeholder approach which considers the importance of stakeholder engagement for high corporate competitiveness (Freeman, 1984).

It can be concluded, Kurusz et al. (2008) model discusses the values of the business case of CSR to imply corporate managers can increase corporate performance by promoting management practices for CSR and sustainable business development. Further, the analysis of CSR values have showed that CSR is related with sustainable development in the following ways: CSR links with the social dimension of SD; CSR is SD on a corporate level or CSR and SD have been perceived as synonyms. In this sense, CSR emphasizes sustainability in business development, therefore, its implementation is crucial for business success and future existence.

⁴⁶ Canadian Business for Social Responsibility (CBSR) (2008) 'Stakeholder Engagement Pannels: A Collaborative Approach to Improve CSR Performance', CBSR, at: <http://www.cbsr.ca/blog/stakeholder-engagement-panels-collaborative-approach-improve-csr-performance>

5. Value of CSR for RES development

This section explains how CSR enhances RES in Bulgaria. The Commission Green Paper⁴⁷ and the European Directive 2009/ 28/ EC require increased share of RES and energy efficiency (EE) in the final energy consumption model of Bulgaria. CSR policies are needed to promote RES development in the conventional energy sector.

According to the Bulgarian policy analysts at the Center for the Study of Democracy (Denitza, M., 2012), there are further challenges for Bulgaria on the way to competitive and sustainable energy supply. These challenges are indicated in the analysis 'Green Growth and Sustainable Development for Bulgaria' (Denitza, M., 2012). The following discussion shows how CSR can develop sustainable energy model in Bulgaria.

1. Unsustainable Model of the Energy Mix – the report indicates that Bulgaria has the highest energy intensity amongst the European countries. The problem is that around 85% of the energy generation is based on imports of fossil fuels. The policy analysts state that the Bulgarian main priority is to stimulate energy efficiency.

CSR – policies promote practices for sustainability, long-term investments and energy independence (Martinuzzi et al., 2010⁴⁸; Directive 2009/28/EC³⁸; Commission Green Paper⁴⁹)

2. Technological dependence & Low investments for R&D – according to the analysts, the technological equipment is mainly for coal and nuclear energy supply while the scientific research in innovation and new technologies is limited. The policy analysts claim that highly qualified specialists will be needed to promote the development of green technologies to businesses and to the local community.

CSR - measures for innovation and sustainable economic growth promotes training of low-skilled labors, education to increase the knowledge of sustainability and the expertise in renewable technology. The responsible CSR practices enhance research in innovation (Martinuzzi et al., 2010⁵⁰; Porter & Kramer, 2006; Carroll & Shabana, 2010¹⁴).

3. Corruption, heavy bureaucracy & lack of transparency – the policy analysts state that political insecurity, frequent changes in the law, long-administrative procedures, and limited expertise are main barriers for sustainable business development.

⁴⁷ European Commission Green Paper (8th March, 2006) 'A European Strategy for Sustainable, Competitive and Secure Energy' faces future energy supply challenges by enhancing a common European RES policy.

⁴⁸ Andre Martinuzzi et al., (2010), 'Does Corporate Responsibility Pay Off?', Research Institute for Managing Sustainability (RIMAS), Vienna University of Economics and Business, Austria.

⁴⁹ European Commission Green Paper (8th March, 2006) 'A European Strategy for Sustainable, Competitive and Secure Energy' faces future energy supply challenges by enhancing a common European RES policy.

⁵⁰ Andre Martinuzzi et al., (2010), 'Does Corporate Responsibility Pay Off?', Research Institute for Managing Sustainability (RIMAS), Vienna University of Economics and Business, Austria.

CSR promotes practices for transparency, such as: social auditing and reporting (Kurusz et al. 2010¹⁹; Hedberg, C. & Malmborg, F., 2003⁵¹).

4. Air-Pollution – according to the policy analysts, the problem with pollution is a barrier for sustainable economic growth. Statistics show that in regard to the emitted GHG, Bulgaria has 66th place out of 261 countries (Mantcheva, D. and Karaboev, S., et al., 2012)⁵². It is expected that policies will be developed to enhance energy efficiency and reduce the high level of GHG emissions in plants like Kardjali, producing lead and cinz.

CSR – promotes supply management practices, technologies for the reduction of the emitted GHG emissions to the atmosphere (European Commission Report, 2009¹⁶; Commission Green Paper⁵³). CSR optimizes corporate performance (Eccles, R. et al, 2011 ; Kurusz et al, 2008).

5. Slow Development of RES – it is indicated that investments in RES capacities are needed.

CSR development promotes RES supply with the spread of social, economic, and environmental values (Commission Green Paper⁵³; Martinuzzi, A. et al., 2010⁵⁰)

6. Outdated Energy Grid – it is indicated that large amounts of energy are lost during transmission and distribution as well as the small capacity of the energy grid restricts investments in new RES projects. It is expected that policies and practices will be developed to advance the technical equipment and expand the capacity of the energy grid.

CSR promotes efficient energy grid, technologies for RES development, and innovation (Directive 2009/28/EC; Commission Green Paper⁵³).

It can be concluded that CSR practices need to be implemented in RES companies to promote sustainable energy supply, energy independence, and efficiency.

Chapter V: RES in Bulgaria

The aim of this chapter is to explain what RES is, why it needs to be developed in Bulgaria and how it can be improved. To this end, RES is discussed, according to businesses and national policy. The relationship between RES and final energy consumption (FEC) will be examined to explain why Bulgarian companies need to improve RES development. Finally, CSR values will be discussed to explain how Bulgarian RES companies can improve their competitiveness.

⁵¹ Hedberg, C. & Malmborg, F., (2003), 'The Global Reporting Initiative and Corporate Sustainability Reporting in Swedish Companies'. Corporate Social Responsibility and Environmental management, Vol. 10, p. 153-164.

⁵² Mantcheva, D. , Karaboev, S. et al., (2012), 'Green Growth and Sustainable Development for Bulgaria: Setting the Priorities', Center for Study of Democracy, Friedrich Ebert Foundation.

⁵³ European Commission Green Paper (8th March, 2006) 'A European Strategy for Sustainable, Competitive and Secure Energy' faces future energy supply challenges by enhancing a common European RES policy.

5.1. RES in Businesses and National Policy

The aim of this section is to explain what RES supply is in Bulgarian businesses and national policy, and how it can be improved. To this end, the relationship between RES and sustainability will be discussed.

RES sector promotes competitive and sustainable energy development by providing RES supply. In Bulgaria, RES supply is based on hydropower plants, solar plants, wind plants and wood biomass. Further investments are needed for the promotion of energy from biomass, geothermal, and wave power. These inexhaustible sources of RES provide high quality, security and sustainability of energy supplies. It can be assumed that RES energy refers to sustainable energy. In business perspective, RES supply aims to increase corporate competitiveness by improving the services and costs of energy supplies. In governmental perspective, RES policies present the national commitment to secure, efficient, and sustainable energy supply, framed in the EU objectives of Kyoto protocol and the European Commission's Strategy for the EU until 2020 (EU Strategy 2020). For Bulgaria, the indicative aims of the EU Strategy 2020 are 16% share of RES in final energy consumption (FEC), 50% higher Energy Efficiency (EE) and 10% share of biofuels in FEC of transport until 2020. The targets under the Kyoto protocol require reduction of the GHG emissions. Bulgarian economy is poorly developed with high energy intensity. It means that the national government needs to develop RES share and EE significantly, in order to provide sustainable energy supply. To enhance RES development, the government has created RES policies in the last years. Basic state policies include the national Renewable Energy Law (RES), Medium and Long-Term Programme for Promotion the Usage of Renewable Energy Sources, Medium and Long-Term Plan for Energy Efficiency, Wastes Management Law, Rural Development Act, Environmental Preservation Act, etc. The national RES policy follows the European framework for sustainable RES development. The legal obligations and the action steps are described in a National Renewable Energy Action Plan (NREAP). In 2007, the frame of RES has been determined under the Law of Renewable and Alternative Energy Sources and Biofuels in Bulgaria, including:

- National aims for RES development;
- Priority accession to the grid for RES power plants;
- Compulsory buying of RES electricity;
- Preferential prices for green energy.

However, EU experts argue that the Bulgarian energy mix is not sustainable, since four years of the implementation of RES law (in 2007). The reason is that the national energy generation and supply is based on fossil fuels. In 2008, Eurostat data showed that the highest energy intensity among the EU members is in Bulgaria, equals to five times the average EU level. In 2011, an international analysis on RES integration in Bulgaria gave evidence that the current electricity generation mix consists of 53.3% fossil fuels and 32.2% nuclear power (Jirous, F. et al., 2011)⁵⁴. Baring this in mind, the national NGO 'Za Zemiata' created 'Bulgarian Sustainable Energy

⁵⁴ Filip Jirous et al., (2011), 'Integration of Electricity from Renewables to the Electricity Grid and to the Electricity Market – RES-Integration', national report of Bulgaria, Eclareaon GmbH, Eko-Intitut e.V., Berlin.

Vision', to imply that a national policy priority should be increase in RES share and EE to develop competitive and sustainable energy supply. EU experts argue that the competitive development of RES supply and EE requires promotion of high economic, social and environmental standards, investments in new technologies and innovation among communities. If Bulgarian RES companies want to be competitive, they should spread the application of economic, social and environmental standards to the local community by using today's best technologies to provide secure, efficient and sustainable energy supply. The EU model of sustainable energy supply suggests that in the future, Bulgarian companies need to make a transition to 100% RES supply to phase-out fossil fuels.

5.2. The Role of RES share for Competitive Energy Supply in Bulgaria

This section explains why RES supply needs to be improved in Bulgaria. To this aim, the share of RES in Bulgarian energy mix will be discussed in line with the national targets under the EU Strategy 2020 to indicate the significant role of RES supply for the competitive development of the Bulgarian economic sectors.

5.2.1. RES share in Electricity Generation under the EU Strategy 2020

The EU Strategy 2020 claims that RES share and EE are the main aspects of sustainable energy supply. The development of RES share in the electricity generation mix of Bulgaria is presented on figure 2. It can be observed that the geographical location, governmental policies, and market progress have enhanced RES generation to meet the present national target for 2012, but more EE measures and advantages will be needed to reach the EU requirements for the share of RES in 2020. According to the National Long-Term Plan for RES 2005-2015, RES potential should reach 50-60% share from the energy generation in Bulgaria. Table 1 shows that less than 1% of this capacity has been used till 2012. To enhance RES development, the governmental projections suggest large investments in wind, solar, biomass capacities and renewable technologies should be realized until 2020. According to the international investors, the political environment and legal framework lack transparency which restricts foreign investments in Bulgaria. To this aim, EU experts require that the government need to adopt supportive mechanisms like feed-in tariffs, green certificates and efficiency measures should to increase the confidence in the national RES market. However, the government could approve large international investments in solar and wind capacities due to the improved cooperation with local NGOs and international organizations.

Table 1: Energy Mix of RES- Electricity Generation (2005-2020)

RES	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hydro	2078	2090	2190	2220	2240	2260	2280	2300	2450	2480	2515	2549
Solar	0	9	16	46	83	181	220	233	248	265	283	303
Wind	8	336	370	451	631	820	984	1033	1085	1139	1196	1156

Biomass	0	0	10	22	36	102	109	209	146	144	149	158
Total RES share	2086	2435	2586	2739	2990	3362	3593	3775	3928	4028	4142	4266

Source: Bulgarian National Renewable Energy Action Plan⁵⁵

5.2.2. RES share in Electricity Supply under the EU Strategy 2020

According to the projections of the Bulgarian Statistical Institute (NSI), the future development of the national energy consumption would be nearly the average European levels. It means that the national level of primary energy consumption will grow consequently. This fact is confirmed in Figure 3, showing the governmental expectations that RES electricity consumption will increase with almost 27% in 2020, compared with the base year 2005. This percentage is based on the NSI calculations for the gross final energy consumption of 10 314 ktoe in 2005 and the expectations for 13 091 ktoe in 2020. Moreover, Table 2 indicates that RES generation needs to increase consistently to meet the targets for RES supply under the EU Strategy 2020. To measure the ability to reach the required gross final consumption of RES in 2020, the national government developed additional scenario which includes current measures on the efficiency of end-use sectors. The results show that the national targets for generation and consumption of RES will be reached with 429 ktoe less RES supply. It means that higher development of RES and EE is needed in the economic sectors, such as households, services, and transport in the period up to 2020.

Table 2: RES Share in Electricity Generation and FEC (2005-2020)

RES	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gross Electricity Generation from RES (GWh)	4341	3879	4044	4355	4784	5662	6126	6762	6922	7084	7292	7537
Gross Final Energy Consumption from RES (heating & cooling) (ktoe)	724	741	765	799	833	900	943	983	1003	1028	1065	1103

Source: Bulgarian National Renewable Energy Action Plan⁴⁸

5.3. Development of RES Supply by Sectors

This section aims to examine the role of RES supply for the competitive development of Bulgarian economic sectors. To this end, the contribution to RES share in FEC is discussed by sectors. The analysis outlines the need for further RES progress and implementation of measures for EE.

5.3.1. Contribution of Bulgarian Economic Sectors to RES Development

⁵⁵ Ministry of Economy, Energy and Tourism of Bulgaria, (2010), 'National Renewable Energy Action Plan', Sofia.

Table 3: Contribution of the National Economic Sectors to RES Share in FEC

RES	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
FEC of RES for Heating & Cooling	750	741	764	799	833	900	943	983	1003	1029	1065	1103
FEC of RES Electricity	206	333	348	374	411	487	527	581	595	609	627	648
FEC of RES in Transport	0	30	51	67	81	100	115	127	150	167	183	205
Total RES Consumption	965	1104	1163	1240	1326	1486	1585	1691	1748	1805	1875	1956

Source: Bulgarian National Renewable Energy Action Plan⁴⁸

Table 3 shows the current FEC of RES and the governmental projections for 2020. Below, is discussed FEC of RES and conventional energy in the economic sectors, such as: industry, transport, services, and households, known as end-use sectors. Calculation of energy turnover rate (the percentage of used energy in every sector) of every end-use sector is presented in table 4. Further calculations can be seen in Appendix 2.

Table 4: FEC Accounting by Sectors

Economic sectors	RES turnover	Conventional turnover
Transport:	$3 \times 1.7\text{BGN/l} = 0.05\%$;	$2724 \times 2.5 \text{ BGN/l} = 68.1\%$
Services:	$767 \times 0.004\text{BGN} = 0.03\%$;	$2666 \times 0.11\text{BGN} = 2.93\%$
Industry:	$155 \times 0.004\text{BGN} = 0.006\%$;	$2376 \times 0.11\text{BGN} = 2.61\%$
Households:	$716 \times 0.004\text{BGN} = 0.03\%$;	$1546 \times 0.11\text{BGN} = 1.7\%$

Source: National Statistical Institute, CEZ Bulgaria Ltd.⁵⁶

The analysis of energy turnover (RES and conventional) is presented below. It indicates the ratio of RES consumption and conventional energy consumption, forming the FEC of the following end-use sectors:

Transport sector

The calculations show that the sector has rapidly increased the consumption of fossil fuels, reaching the highest percentage (68.1%) among the other sectors (table 4, Appendix 2). RES consumption in this sector hardly reaches 0.05%. The problem is that the sector bases its consumption on dwindling petroleum products rather than biofuels. Petroleum products are expensive imports and damage the environment with GHG emissions. This fact threatens the future development of the sector. EU experts have discussed this problem in the Strategy 2020 for

⁵⁶ CEZ Bulgaria Ltd. at: <http://www.cez.bg/bg/za-klienta/energijna-efektivnost.html>

long-term sustainable development. According to the strategy, Bulgaria is obliged to increase the use of RES in transport with 10% till 2020.

Services

Service sector has high share in FEC (table 4, Appendix 2). The conventional turnover is 2.93% at 0.11 BGN/KWh while RES turnover is only 0.03% at 0.004 BGN/KWh. Large usage in the sector has electricity, followed by heating, while oil products and natural gas have smaller share in FEC¹¹. The problem is that FEC in service sector is based on fossil fuels and RES share is limited. International reports indicate that fossil fuels are under depletion and higher prices for conventional energy are expected. Bulgarian government need to improve the performance of the service sector in order to achieve competitive and sustainable development. The commitment of Bulgaria to the EU Strategy 2020 is indication that the national government is expected to develop renewable energy technology for heating and cooling that will improve the EE of the sector.

Industry sector

In industry sector, FEC has decreased significantly in the last 20 years (table 4, Appendix 2). Yet the industry has the highest energy intensity in the EU, which is near the EU-27 average scale of 28%¹¹. Appendix 2 shows that FEC of industry is 25%. Conventional turnover is 2.61%, having 0.11 BGN/KWh, while RES turnover is 0.006%, having 0.004 BGN/KWh. Industrial added value is formed by chemical industry (648 ttoe); non-metallic mineral products (606 ttoe); food industry (252 ttoe); pulp and paper printing industry (189 ttoe); ferrous metals (169 ttoe); iron and steel industry (154 ttoe)⁵⁷(NSI, Energy Balance 2010). National reports conclude that industrial consumption is much higher than the industrial production of GDP. The reason is that SMEs have low technological development and limited application of international standards¹¹. European experts address the problems of high energy intensity and low technology development in the sector by imposing requirements to the national government to follow EU models for energy efficiency and modernization.

Households

Households have the lowest FEC share (Appendix 2). Conventional turnover is 1.7% with 0.11 lv/KWh. RES turnover is only 0.03% at 0.004 lv/KWh. Reports indicate that about 58% of households are heated with electrical heating while 42% have central heating. It means that Bulgarian households use high percentage of electricity for heating and cooling. The low share of RES shows that Bulgarian government has to modernize the sector in order to make it competitive. EU experts require deployment of efficient technologies for household equipment as well as combined supply of conventional and RES electricity. It is expected that wood waste and biomass should be used for heating and cooling. Efficient grids for diversification of the energy mix should be encouraged.

The presented analysis of energy consumption in the economic sectors shows that Bulgaria faces problems of high dependence on fossil fuel supply, raising energy prices, high energy intensity, low technological development, and high share of GHG emissions in transport sector. It can be assumed that Bulgarian energy mix is unsustainable. On Figure 4, it can be observed that

⁵⁷ National Statistical Institute (NSI), Energy Balance 2010.

Bulgaria needs to increase RES consumption significantly in order to meet the targets under the EU Strategy 2020. To this end, the local NGO 'Za Zemiata' in cooperation with the international network for sustainable development INFORSE-Europe developed *Bulgarian Sustainable Energy Vision* until 2050. It shows that RES supply and EE need to be increased significantly to provide secure, efficient and sustainable energy supply in the future. It means that Bulgarian RES companies need to spread RES supply by using highly efficient technologies. To this end, the Bulgarian Vision for 2050 suggests that RES companies should develop practices that go beyond pure financial benefits, in order to promote RES supply and EE technologies to the local community. It means that Bulgarian companies, government, and NGOs need to cooperate to spread CSR practices in order to develop competitive and sustainable energy supply.

6. CSR Practices for the Promotion of RES in Bulgaria

The aim of this section is to explain how CSR increases the development of RES supply in Bulgaria. To this end, the relationship between CSR and the competitiveness of Bulgarian RES companies will be examined in table 7.

6.1. CSR Development in Bulgaria

In the literature, some main factors can be distinguished that influence on the integration of CSR in Bulgaria. First, the correct understanding and interpretation of the concept is vital for developing CSR culture in newly accepted members of the European Union (EU) like Bulgaria (Alpha Research, 2006; Alpha Research, 2007). Bulgaria has joined the EU on 1 January 2007, meaning the country is in a process of integration into the EU Common Market where "the fundamental freedoms" – free movement of goods, people, services and capital are offered. Bulgaria, as a new EU member country, should find its place in the Common Market, promoting values of competitiveness, achieved high-living standards, long-term sustainable growth and "dynamic knowledge-based economy" which are the strategic goals of the Common Market defined in Lisbon strategy: 'to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion (Ivan-Ingureanu & Marcu, 2006)'. This explains one of the reasons for Bulgaria to incorporate CSR strategy in order to meet the standards and regulations formulated by the EU. Second, globalization is another factor, forcing Bulgaria to implement CSR strategy. In this context, Bulgaria needs to develop a competitive environment based on sustainable business in order to meet the EU market standards. Yet, a sustainable development strategy is not adopted which hinders the development of the conventional energy model to a sustainable one (CSD, 2010).

Recognizing the need for developing CSR strategy, Bulgaria, as a member of the United Nations (UN), is involved in the promotion of CSR practices thorough the global network of the United Nations Development Programme (UNDP) and specifically the strategic Global Compact initiative (Alpha Research, 2007, Line, M. & Braun, M., 2007). As a result, Global Compact initiative together with Bulgarian foundation 'Help for the Charity in Bulgaria' required preparation of the project 'CSR in Bulgarian context' in 2006 held by Bulgarian Alfa Research agency. In 2007, UNDP together with the European Commission run the project 'Baseline Study

on CSR practices in the New EU Member States and Candidate Countries' (regarding Bulgaria, Croatia, Hungary, Lithuania, Macedonia, Poland, Slovakia and Turkey) for stimulating the development of CSR in those countries, based on business networks of CSR best practices in United Kingdom, Germany and Spain (Alpha Research, 2007). The main objective of the launched initiatives is to accelerate the development of CSR strategy and awareness so that firms would become more open in engaging with CSR strategy and dialogues with stakeholders, focusing on why and how CSR strategy should be implemented (Alpha Research, 2006; Alpha Research, 2007; Line, M. & Braun, R., 2007).

In Bulgarian context, the problem is in the less awareness of CSR benefits for RES companies (Line, M. & Braun, R., 2007). Evidence of CSR values is needed to stress the practical application and increase its positive impacts (Alpha Research, 2006; Alpha Research, 2007). A common understanding of CSR strategy is needed so that to build CSR framework, measuring corporate social performance (CSP). This is the way for the concept to be easily implemented in management practices (Line, M. & Braun, R., 2007).

Chapter VII: Findings & Discussion

The research questionnaire has been generated on the basis of CSR concept, referring to the 'triple-bottom-line' model of balanced economic, social, and environmental development (Elkington, 1997, Van Marrevijk, 2003).

7.1. What renewable energy projects have your organization implemented?

This question aims to measure the generation of RES in Bulgaria. As from 1 January 2007 Bulgaria joined the European Union, Bulgarian RES sector has agreed to increase RES share in final energy consumption to 11% by 2010. Further, the EU Directive 2009/28/EC requires 16% share of RES in Bulgarian energy mix by 2020, meaning that more energy projects should be developed in Bulgaria. Governmental institutions, NGOs and companies were asked by the researcher to comment on the developed eco-friendly projects. The following table shows a list of the present and envisioned RES projects of the interviewed companies.

Table 5: List of present and envisioned RES projects

Companies	Present RES projects in MW				Envisioned RES projects in MW			
	Bio	hydro	Wind	solar	Bio	hydro	Wind	Solar
Aleksia 2002					999kW			
Ariel Ltd.		2.45MW						
AE Solar Bulgaria Ltd.				11MW				

Biopower Ltd.	6MW		5MW	2.3MW	9MW			
Borko Ltd.			8MW				56.6MW	
Geo Power Ltd.			156MW					
Greentech Engineering Solutions Ltd.				41.4MW and 605kW				
Interstroi – Kaleto Ltd.		3.6MW				4.4MW		2MW
Neven-SIG Solar Ltd.				5MW and 562kW				
Solarpro Ltd.				21.71MW and 223.6kW				
Vind Ltd.			150MW			7MW		

Some of the interviewed companies are not included in the above list because they are installers of RES equipment.

Governmental institutions

According to the RES experts from the Bulgarian Ministry of Economy, Energy and Tourism (MEET), a few reasons made the government to prefer installing wind and solar power plants in order to meet the EU requirements. To begin with, Bulgaria has high potentials, estimated at 76 000 MW for wind powers and 71 000 MW for solar powers. The currently used production capacity is only 1000MW, including 600MW generated from wind plants and 400MW from solar plants. Secondly, the hydro power potential has already been reached with 2 563 MW while the maximum capacity can be 2 900MW by 2020. It means that at most a hydro power with 300MW capacity could be installed by 2020. Thirdly, biomass energy generation has good capacity for development in Bulgaria but the biomass generation is small- scaled. The problem is that Bulgarian farmers own less than 10 000 decares land which constrains biomass generation to small-scale production. RES experts suggested that ‘larger agricultural units should be formed where farmers and engineers should work together to develop the biomass power plants’. Considering geothermal energy, there are high potentials in the country but companies find it difficult to make such investments. In this case, RES experts suggest that more governmental policies should enhance investments in geothermal energy. Having the requirements of the EU Strategy 2020 in mind, RES experts stated that over 3000 MW wind and solar energy should be produced in the next 10 years. To this aim, the governmental efforts were focused on the installation of large wind and solar plants.

RES experts stated that the aim of the installed projects is to meet the target of 16% RES generation by achieving more than 1 000 MW RES production.

NGOs

Most of the interviewed NGOs oppose the idea of investing in state-owned or private monopoly power plants in Bulgaria, such as the proposal for Nuclear Power Plant of Belene with installed capacity of 2 000 MW. The interviews show that NGOs aim to support the development of RES by making efforts to convert household customers to household producers. For example, 'Za Zemiata' NGO recommended the Energy Strategy of Bulgaria until 2020 should be based on a decentralized approach to households and municipalities, stimulating energy-independence and efficiency. SPEE suggests the Strategy 2020 should propose specific measures and funding, enhancing regional and local power plants projects. The recommendations of SOFENA, BGWEA etc. to the Energy Strategy of Bulgaria 2020 for building individual small-capacity projects can be grouped in economic aspects, energy efficiency, RES usage, environmental impact and climate change. The economic recommendations suggest that municipal investments should be made in the local potential of RES and energy efficiency to accelerate small businesses and create new jobs. Energy efficiency should deal with the reduction of the regional electricity losses by providing guidance for energy efficiency measures in accordance with local climatic factors. RES usage should give priority to distributed energy from small production capacities by promoting diversification of the energy generation and distribution network. Environmental impact and climate change aspects concern recommendations about national and municipal measures for low-carbon vehicles and RES installations at national and local administrative buildings. NGOs state that they prefer to develop small power capacities in order to 'increase the living standard of Bulgarians' by reducing their dependence on fossil fuels and energy imports. Thus, investing in small capacities installations would ensure energy security by 2050.

To sum up, the interview analysis show that RES experts expect the installed RES capacities would secure higher RES share in the energy mix than 16%. Therefore, RES experts recommend that small-individual capacities should be prioritized to enhance consumer energy independence and security. Further governmental policies are expected to enhance investments in biomass and geothermal energy generation. NGOs proposals aim to improve the amendments for household installations of the Energy Strategy of Bulgaria until 2020 by recommending further aspects for RES development that catalyze small businesses and create new job opportunities. Also, NGOs develop activities to organize agricultural units in order to encourage biomass energy as well as policy proposals for investments in geothermal energy projects. Finally, RES companies aim to develop small-individual solar plants, larger installed capacities for wind plants, and biomass projects for energy efficiency and technological development of buildings.

7. 2. What RES projects are under development?

This question aims to examine the future development of RES in Bulgaria. EU strategies for sustainable development suggest that RES investments depend on coherent coordination in the activities of governmental experts, NGOs and companies.

The interviewed governmental experts from the MEET of Bulgaria and the Ministry of Environment and Water of Bulgaria (MEW) declared that the national commitment to the EU Strategy 2020 agreed to install about 2 300MW RES. The experts suggested that the current RES investments were about 4 000MW while the installed RES capacities were over 600MW.

The governmental plans for envisioned energy projects show that more RES power plants will be constructed on biomass, having the summed amount capacity of 66MW, more solar power plants

with 55MW capacity, and additional wind power plants with 956.5MW capacity in total. In this case, the governmental experts stated that ‘these capacity investments are sufficient, even going beyond the Bulgarian commitments to the EU Strategy 2020’, setting out 16% share of RES in final energy consumption. ‘The focus should be on small biomass projects and rooftop solar panels’. RES experts in the MEET of Bulgaria suggest this shift of perspective would make RES more beneficial for consumers by lowering their electrical prices. Further, smaller RES projects would avoid the high prices for large constructions and grid overloads. Bearing in mind that, RES experts stated that they would enhance 1.5MW biomass projects and solar rooftop panels from 30 to 200kW by making amendments to the Bulgarian Renewable law.

NGOs

According to Bulgarian NGOs, main RES capacities of water, solar and wind plants had already been developed in Bulgaria. The organizations stated that their efforts for further RES development would be on political, rather than on practical level. In this sense, the current NGOs’ activities aim to increase public awareness about environmental and efficient use of energy by creating European networks, community partnerships and promoting RES educational programmes. The interview results showed that Bulgarian NGOs take part in: the ‘International Energy Brigade’ network, ‘Agree Net’ network, CEE Bankwatch Network, Inforse-Europe, SPARE, GAIA, cross-border cooperation projects with European countries in order to establish networks for propagation of RES and energy efficiency. Among the educational programmes, organized by NGOs, are trainings, seminars, workshops and conferences to spread the awareness about RES benefits. To convince municipalities and governmental institutions to invest in RES measures, NGOs are working on small demonstration projects of solar hot water installations and solar power plants. Currently, such projects are solar panels installations on rooftops of two kindergartens in the districts Reduta and Emil Markov in Sofia; solar installations on the offices of the National Park Vitosha in Sofia; Home for Children Deprived of Parental Care in Veliko Tarnovo; House for the Elderly in Sliven; orphanage ‘Drugarche’ and kindergarten ‘Pushkin’ in Varna; Socio-educational boarding ‘Maxim Gorky’; ‘Home for Children and Young People from 3 to 18 years with Mental Disabilities’ in Mezdra; house ‘Mother and Child’ in Vinnitsa; special school ‘Lyuben Karavelov’ in Stara Zagora, etc. The interview results can be summarized in the following framework of NGOs activities under development, dealing with:

1. reduction of energy poverty
2. ensuring energy security of the country
3. climate changes and CO₂ emissions
3. rising prices of fossil fuels
4. low share of RES in energy generation and consumption
5. enhancing energy efficiency
6. insufficient public awareness about RES benefits
7. the high energy intensity of Bulgarian economy

Therefore, NGOs activities in cross-border projects and educational programmes promote renewable energy installations not only to reduce energy consumptions but to strengthen public awareness about RES and global issues. The final goal is to improve the energy security and efficiency of Bulgaria by developing low-carbon industry and independent energy market.

Companies

The interview results show that the recent amendments in Bulgarian RES law made companies to change their policy strategy. The new directive gave priority to investments in small RES projects, having capacities from 30 kW to 200kW. It means that companies are encouraged to apply a decentralized approach to increase energy autonomy, economic growth and jobs in regional, and local areas. Having in mind the stimuli for investment in small RES capacities, the research describes evident examples from interviews with main companies, operating in solar, biomass and wind sector. A manager of Solarpro company commented that the corporate policy reoriented from installation of high solar plant capacities to small and medium photovoltaic systems for individual power supply, and panels for walls and rooftops installations. On the other hand, the Bulgarian company 'Biopower' aims to decrease regional energy losses by investing in household cogeneration of heat and electricity generation from biomass plants. To enhance the cogeneration process, 'Biopower' is investing in remote control of homes heating through a mobile device. The company intends to improve regional energy efficiency by building public-private partnerships (PPPs) with water companies for cogeneration of biogas. It is expected that households should save 30% of energy costs while water companies would achieve 70% less expenses. In wind energy perspective, from 'Borko' company stated that the characteristics of wind generators do not prioritize small capacity installations for households because it is not profitable to construct a single fin. Currently, 'Borko' is working under the projects in Omurtag with 13.8MW installed capacities and Shumen project, having 27.6MW. The corporate aim is to prioritize energy efficiency by using wind turbines from the main European manufacturer Enercon. However, the interviewed companies indicated that two main governmental programmes are used for the financing of small projects: operational programme 'Competitiveness' and 'Programme for Rural Development'. The interview results of main RES corporate aspects for investments give priority to:

1. small RES projects – RES companies prefer small projects because of less financial investments, priority for energy grid connection and lower risks for the project implementation
2. energy efficiency- companies state that these investments decrease losses of energy transmission and supply processes
3. cogeneration- according to companies, it improves energy efficiency by generating both heat and electricity
4. urban infrastructure of regional areas- companies suggest that the investments develop higher potential for small business development
5. scientific research for local approaches on energy efficiency and RES- RES companies state the investment in scientific research develops opportunities for higher corporate efficiency methods;

Therefore, legal priorities, lower financial risks, regional development and opportunities for funding make CSR companies to invest in small projects.

7.3. What is the understanding of CSR in your organization?

This question aims to examine to what extent companies, NGOs and governmental institutions in Bulgaria are aware of CSR and its benefits.

- RES companies

Aleksia 2002 Ltd. – The respondent stated that ‘CSR is a corporate commitment of responsible behavior towards employees, society and the environment. We aim to use CSR as a tool to decrease the harmful environmental impacts by enhancing renewable energy supply’. It means that the company uses CSR as a policy for sustainable business development. It is understood as a corporate framework to promote responsible business behavior to employees, community and the environment.

AE Solar Energy Ltd. – The respondent perceives CSR as corporate governance of ethical principles, corporate transparency, responsible business behavior, corporate social performance, meaning that CSR is related to a strategy of corporate governance.

Ariel Ltd. – The corporate manager perceives CSR as a corporate obligation to apply social and environmental standards, showing responsibility to the environment and community. Therefore, the company adopts CSR as a mean to carry out its duties to the environment.

Autev AG – The interviewee defined CSR as part of corporate strategy for high standards in innovation, efficiency and environmental technologies. It enhanced the corporate work in international level with business partners, suppliers and auditors. The respondent pointed out that the high corporate standards enhanced LED lighting technology to win awards in the field of innovation and environmental technologies. Therefore, the company uses CSR to fulfill its responsibilities to community and the environment by implementing high standards for innovation and efficiency.

Biopower Ltd. – According to the interviewee, CSR is part of the corporate strategy for responsible management and implementation of the projects for heating systems, thermal power plants on biomass energy by developing the energy efficiency and green certification of buildings, based on RES law. In this sense, the company perceives CSR as a management strategy.

Borko Ltd. – According to the respondent, the company uses CSR as a certificate to enhance project planning, building permit, corporate audit and to create relationships with wind energy companies and associations, such as Electrawinds, the Association of Producers of Ecological Energy, Bulgarian Wind Energy Association, etc. It means that the company applies CSR as a legal responsibility to the environment.

Charger Decor Ltd. - The corporate manager stated that ‘CSR encourages deployment of standards to decrease environmental footprint by clean technologies and energy diversification.’ It means that the company applies CSR as a measure to increase energy efficiency, RES supply and sustainability.

Ecosist Ltd. – The interviewee stated that CSR is the corporate responsibility to employees and society for higher standards of development, improved working conditions, decreased GHG emissions, which are necessary for the business development. Therefore, CSR is perceived as an obligation for business success.

Erato Ltd. – The respondent considers CSR as a part of corporate target to develop skills, practices, new technologies for energy generation from biomass. Therefore, the company integrates CSR in its strategy for successful business.

It should be pointed out that the interviewee has taken part in the Bulgarian government, dealing with economic and social policies. That is why he could relate CSR to strategy.

Geopower Ltd. – The interviewee stated that CSR is a way to achieve Geopower's mission and vision. The corporate mission uses CSR to create: corporate harmony with the environment; incorporation of new technologies for RES generation; security of energy supply; highly qualified team of experts, and competitive advantage. The corporate vision uses CSR approaches to gain valuable corporate image. Therefore, the company applies CSR as an integrated strategy for higher economic performance and sustainable business development.

Greentech Engineering Solution (GES) Ltd. – The company adopts CSR as a value added, according to the respondent, to enhance business planning, reporting, energy supply services and greenhouse gas prevention. In this case, the corporate manager applies CSR in corporate policies, strategies and operations as a competitive advantage.

Interstroi - Kaleto Ltd. – The manager defined CSR as the corporate responsibility to employees and the environment for good working conditions under the ethical codes of conduct and implementation of environmental technologies, making the energy supply reliable and efficient. In this sense, the company uses CSR as a legal framework of corporate responsibilities.

IRES Bulgaria Ltd. – The interviewee defined CSR as the corporate social and environmental obligation to decrease customers' dependence on fossil fuels, to provide optimized energy costs, secure and clean energy supply. Therefore, the company perceives CSR as a commitment to customer needs and reduction of GHG emissions.

Motto Engineering Ltd. – According to the respondent, CSR manages corporate social and environmental activities to enhance customer services, transparency, create stakeholder partnerships to fight greenhouse gas emissions by RES investments. It means that CSR is applied as a business strategy for successful and sustainable business development.

Neven-SIG Solar Ltd. – The office manager stated that CSR is a top-management concept, providing the company with opportunities for new markets; competitive corporate image of a reliable supplier; quality standards for high production capacities, which increased the turnover of Neven-SIG Solar Ltd. in the last year. Moreover, the company uses CSR to improve the labor safety, work conditions and machinery equipment. Therefore, CSR is a corporate framework for international markets and strategy for high turnover.

Solarpro Ltd. – The respondent said that CSR is the social strand of corporate policies for responsible attitude to the employees, community and the environment which create legitimacy, community partnerships and decrease greenhouse gas emissions. It means that the company applies CSR as a policy for sustainable economic, social and environmental development.

Eurodesign BG Ltd and Vind Ltd. - Both of the respondents explained that a common definition of CSR cannot be provided because the Bulgarian government lacks formulation of CSR strategy and legal requirements for its implementation.

To sum up, the research reveals that most of the RES investors at the Bulgarian market were foreign companies while the local companies were less. The current analysis consists of ten foreign companies and five local. The local companies were smaller, focusing the perception of CSR on the legal regulations, such as the ethical code of conducts, energy strategy for energy efficiency and clean energy supply. Thus, they perceived CSR as social, economic and environmental compliance with the existing governmental regulations. On the other hand, the foreign companies had a relative impact on the practical development of CSR. They expanded the understanding of CSR to innovation, improved customer relations, competitive advantage, energy efficiency, high performance. Their definitions of CSR show two important aspects for the further development of CSR in Bulgaria, such as: addressing customers' needs and establishment of stakeholder partnerships should be perceived as a beneficial responsible behaviour.

- Non-governmental organizations (NGOs)

Za Zemiata – The interviewee stated that CSR is a concept to promote energy efficiency and RES supply as a sustainable alternative which outperforms conventional methods for energy generation.

TIME Foundation – According to the respondent, CSR is developed strategically in the organization through social activities and green certificates EMAS, but when CSR is not perceived correctly, it turns to a greenwashing concept.

Energy for Sustainable Development (ESD) - The respondent perceives CSR as a policy, which should be part of the long-term corporate strategies to achieve sustainable business development.

- Business Organizations

Bulgarian Forum of Business Leaders (BFBL) – The respondent characterized CSR on a global and a business level. From a global perspective, CSR is perceived as a responsible attitude to the resources today that would ensure the future of the next generations. In corporate perspective, CSR is 'a mode of operation that takes into account the interests of all stakeholders and the environment'. In this sense, CSR is described as a global, sustainable and business strategy.

Bulgarian Environmental Partnership Foundation (BEPF) – The respondent describes CSR as a long-term attitude and a corporate policy which is not a greenwashing, but generates activities to meet community needs by solving social and environmental problems.

Sofia Energy Agency (SOFENA) – The organization defined CSR as an integral part of its mission to work for public benefit, energy efficiency and sustainability by cooperating with relevant organizations, joining networks, associations, supporting trainings and projects in the process of promoting RES supply.

Association of Producers of Ecological Energy – BG (Blagoevgrad) – The respondent stated that CSR reflects the nature of the organization, having the mission to create activities, events and projects that are recognized from the stakeholders.

Association of Producers of Ecological Energy – BG (Varna) – The respondent stated that CSR includes intelligent management of resources; raising the awareness of the benefits of using RES at individual and global level; shifting from conventional to alternative power generation, which can be concluded in: governance, RES supply and energy efficiency.

Bulgarian Photovoltaic Association (BPVA) – The respondent stated that the role of CSR activities is in the implementation of solar power plants for the development of clean energy supply and urban climate-protection.

Bulgarian Wind Energy Association (BGWEA) – The interviewee defined CSR as the mission of BGWEA organization to be a constructive partner to all stakeholders of the wind energy sector in Bulgaria, such as: the government, the legislature, NGOs, industry experts and mainly the community, in order to achieve sustainable business development of the wind energy sector.

- Governmental institutions

The interviewees from *the Ministry of Economy, Energy and Tourism and the Ministry of Environment and Water* declared that a national CSR concept is not defined, because CSR is not a legal requirement, therefore, the common EU framework is applied: CSR is ‘a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis’.

Agency of Energy Efficiency (AEE) - The respondent stated that the institution supports Sofia Municipality and SOFENA NGO in the implementation of social and environmental activities for good governance and sustainable business development. The respondent explained that the institution uses the detailed CSR definition in the context of the EU Green Paper⁵⁸: ‘By stating their social responsibility and voluntary taking on commitments which go beyond common regulatory and conventional requirements, which they would have to respect in any case, companies endeavor to raise the standards of social development, environmental protection and respect of fundamental rights and embrace an open governance, reconciling interests of various stakeholders in an overall approach of quality and sustainability’.

7.4. Does your business have internal obligations or guidelines to consider economic, social or environmental responsibilities?

⁵⁸ European Commission, (2001), Green Paper ‘Promoting a European Framework for Corporate Social Responsibility’, ISBN 92-894-1478-2.

This question aims to examine the legal initiatives for CSR implementation in Bulgaria. The interviewed RES companies indicated that they follow all the necessary legal requirements, otherwise they would not have a legal permission to produce green energy.

This should mean that most of the companies keep the standards of ISO 9000.

7.5. Does your business externally reports or promotes economic, social and environmental activities?

This question aims to examine the implementation of programmes in businesses' activities which are part of CSR. The results show that the implementation of external auditing is limited. Only TIME foundation indicated development of external reports and EMAS system for environmental management and audit. However, the interview analyses show the presents of many practices for CSR promotion in Bulgaria from NGOs. These findings are categorized in:

- activities that benefit the society

This category includes NGOs initiatives for charitable giving and educational campaigns that raise the awareness of the social benefits from RES supply, energy efficiency, and sustainable development.

A respondent from the Bulgarian Forum of Business Leaders (BFBL) stated that the organization carried out a charitable ball to donate funds for breast cancer tests and in vitro procedures for couples, deprived of state funding.

The interviewee from the NGO Za Zemiata and the foundation EcoCommunity noted their participation in demonstrative installation of solar plants for charity projects in kindergartens, orphanages, schools, care homes, etc. The respondents added that RES projects, workshops, trainings were developed for educational purposes about RES, energy efficiency, and sustainability.

The respondent from SPEE (Blagoevgrad) stated that the organization develops practices from CSR promotion at the events for World days. The respondent added that on 3rd of May (the day of the Sun), SPEE representatives organized lectures for primary-school children about environmental protection, renewable energy and the advantages of using green energy. Also, the interviewee mentioned the educational initiatives, providing opportunities to high-school and university students, studying in the field of RES and energy efficiency, to visit renewable hydroelectric and photovoltaic plants of SPEE members, accompanied with lectures from specialists.

The respondent from NPO SOFENA stated that the organization provides educational programmes, practices to convince people, municipalities, and the government that the use of pellets and solar thermal plants are more efficient solutions for heating systems in kindergartens, schools, hospitals, etc.

- activities that benefit the environment

This category includes corporate and NGOs activities that promote CSR by developing environmental initiatives and preventing impact of GHG emissions.

The respondent from the NGO APEE stated that the organization participates in informational and educational education campaigns about energy efficiency, climate change, and sustainability. The respondent explained that APEE took part in public information days about the benefits of green transport and renewable supply in households.

The respondents from Interstroi-Kaleto Ltd. & Ariel Ltd. claimed that the companies planted the same number of trees which they engraved during their power plants constructions.

The respondent from NPO Za Zemiata claimed that the organization cooperates with Ernst&Young, Coca Cola, Lufthansa to decrease the GHG emission, accumulated in the business travelling of their employees, by planting trees, cleaning city parks with corporate funds and volunteer labour.

The respondent from the NGO EcoCommunity stated that a CSR project for biogardens of plant vegetables was implemented in four kindergartens at Krasno village. The interviewee added that the project included children, teachers and volunteers to stiff beds, backfilling them with soil, bio-fertilizer and coco. Moreover, the interviewee stated that the organization cooperated with Hewlett-Packard Bulgaria Ltd., SAP Labs Bulgaria Ltd. and GB Services Ltd. to plant over 2000 seedlings in Pirodop area, Lyulin mountain and Ivailovgrad.

The respondent from the NGO SPEE stated that the organization took part in restocking of rivers.

- Responsible investing in long-term initiatives

This category includes promotion of CSR practices for socially responsible investments in activities with long-term development. The interviews findings show mainly corporate and NGOs investments in educational and international projects.

NPO SOFENA and NPO EcoCommunity stated that they enhance students, studying in the field of RES, to implement energy efficiency measures in small schools.

The respondent from NGO Za Zemiata stated that the organization implements RES projects for the period of ten years as part of the international initiative 'Energy Brigade' of the world's largest NGO for sustainable development 'Global Brigades'⁵⁹.

The respondent from SPEE stated that the organization invested in a project for building a green school where children would have the opportunity to see an exhibition with working mini versions of photovoltaic, hydro, wind, biomass power plants and a weather station. The interviewee added that the organization invested in the development of training center for ecology at the green school.

⁵⁹ Global Brigades at: <http://www.globalbrigades.org/>

The respondent from the Bulgarian Photovoltaic Association (BPVA) claimed that the organization invests in global projects for urban climate-protection, the environmental projects of the green German foundation Heinrich-Boell, World Wildlife Fund (WWF) in Bulgaria, Climate Coalition.

7.6. Do social and environmental activities have been part of your policy?

The purpose of this question was to examine the understanding of the relationship between CSR and business long-term benefits. The interview results show social and environmental activities were perceived either as *organizational mission* or *organizational strategy*. Policy deals with the organizational mission to govern daily activities, while strategy is about strategic decisions of corporate managers.

Corporate results show that local Bulgarian companies perceive CSR as *a policy management* of responsibilities towards employees, society and the environment. Baring in mind the above analysis about the internal and external corporate obligations, it can be assumed that the social and environmental responsibilities of the Bulgarian companies are reduced to: ethical code of conduct; ISO 14001:2004; ISO 9001:2008, and OHSAS 18001:2007. It describes the implementation of social and environmental activities as organizational mission among Bulgarian companies. In a strategic perspective, the EU regulations imply that corporate social and environmental activities should lead to innovation, efficiency, and competitiveness in dealing with global problems. It is expected that the corporate social and environmental responsibilities in Bulgaria would develop more. This could be done through a shift from the current responsibility to employees and local environmental impacts to a more strategic ways of corporate presence in the Bulgarian community by a corporate engagement in relevant social issues with long-term strategic effects. On the other hand, the international companies show higher competitive benefits of CSR practices which are evident in their perceptions of CSR, discussed above. The essence is in their strategic management of social and environmental activities through practices for innovation and efficiency that makes them highly competitive in long term. Bulgarian companies should aim to develop their social and environmental responsibilities on a higher level in order to be competitive.

The interviews show that Bulgarian NGOs developed CSR responsibility strategically. The discussed NGOs' external practices are evidence that their social and environmental practices cover local, regional and global issues. The problem is that the Bulgarian government lacks development of CSR strategies, measures, policies for sustainable business development which limit the awareness and implementation of CSR in the country. In this sense, the interview results show that the development of social and environmental activities is part of the mission of governmental institutions, but CSR policy is not developed yet. The Bulgarian government should develop more social and environmental frameworks to follow European regulations and global initiatives.

7.7. Do users ask for environmental or socially responsible activities when projects are developed?

The purpose of this question is to examine the relationship between CSR and high corporate performance. Some trends were found among RES companies, NGOs and governmental institutions which are summarized below:

- **RES companies**

According to the respondents from the photovoltaic companies, customers have higher interest to social and environmental practices after the implementation of the corporate large power plants projects. The interviewee from Solarpro claimed that the company installed photovoltaic plants with 2.4MW, 4.8MW and 5MW which lead to an increased customers' interest in small rooftop installations of 30kW. The reason was that small installations provide free energy to households. Over the time, the number of customers with smaller installations grew even further, making Solarpro to change its strategy towards easy installations at low costs for rooftop projects.

The interviewee from Biopower claimed that the installed biomass plant in Ihtiman of 3MW attracted local kindergartens, schools and households to use the more environmental-friendly heating on biomass. It could provide a high percentage of energy savings than the conventional energy. In fact, the increasing usage of biomass in households affected Biopower to develop a programme for district heating of households on biomass.

The respondent from Interstroi-Kaleto hydropower supplier stated that the implementation of RES projects spread a more serious attitude towards the environmental impact and the energy efficiency in society.

- **NGOs**

According to the examined NGOs, customers appreciate social and environmental activities when projects were executed. The respondent from Za Zemiata stated that after the installation of solar panels on rooftops of several kindergartens and high-schools, the consumers appreciated the achieved energy efficiency and cost savings. The interviewee from EcoCommunity stated that the organization finished 'Plant a tree' initiative which was followed as a model by some companies and volunteers. The respondent from SOFENA claimed that after the implementation of the project 'Promoting the Rational Use of RES in Mountain and Rural Communities for Sustainable Development' in 2009, the development of RES and energy efficient technologies in mountainous and rural municipalities was increasing every year.

- **Governmental institutions**

The government asks for the development of social and environmental practices of the implemented projects by measuring their application through ISO standards.

Therefore, the results show that customers value corporate social and environmental practices. It means that CSR increases corporate performance. Bulgarian companies should develop higher social and environmental responsibilities to enhance innovation, transparency, competitiveness, sustainability. However, higher corporate performance is based on strategic understanding of CSR. In this sense, Bulgarian government should provide CSR strategies.

7.8. Do you implement socially and/ or environmental-friendly practices? If yes, can you give examples?

The purpose of this question was to examine the contribution of RES companies, NGOs and governmental institutions to CSR development. The interview results showed that stakeholders develop social and environmental practices as behavior measures which can be grouped in: practices for ‘environmental conservation’, ‘rational use of energy’, and ‘mobility’. Most of the interviewed companies plant trees for ‘environmental conservation’ in order to recover the caused environmental damages or to reduce the level of consumed GHG emissions due to their corporate work. The corporate activities for ‘rational use of energy’ and ‘mobility’ were related to the implementation of innovative practices for efficiency in energy generation and supply, as well as technologies for GHG emissions. NGOs practices for ‘environmental conservation’ were planting trees, spreading the use of bio-fertilizers, supporting green energy development. Among the NGO practices of the group ‘rational use of energy’ are: turning off computers when not in use, optimizing lighting, rational use of equipment, etc. to reduce energy consumptions. The NGOs practices of the group ‘mobility’ were summarized to: using public transport and bicycles in order to decrease the level of global GHG emissions. Governmental institutions stated that they invested in green parks, regional and urban environmental development, enhance renewable energy generation and supply, biodiversity which are among the initiatives for ‘environmental conservation’. Moreover, governmental experts prioritized practices of energy efficiency, innovation, transparency, competitiveness in governmental strategies for EE to develop the ‘rational use of energy’. Finally, the experts indicated that they developed measures for RES development, 16% EE, and 10% reduction of GHG emissions in transport in the Action plan of Bulgaria under the requirements of EU Strategy for 2020. The experts claimed that the potential of constructed and developing RES projects would achieve the required level of 16% EE until 2020 but more high standards and measurement systems were needed to enhance competitive energy generation and supply.

7.9. What barriers does your business meet in the implementation of a renewable energy project?

The aim of this question was to find out the limitations in the development of renewable energy in Bulgaria. The results were discussed, regarding the three priority groups: RES companies, NGOs and governmental institutions.

The analysis of the interviews with RES companies showed the main barriers were:

1. constraints, risks and high governmental control of the RES law
2. high financial investments
3. cumbersome bureaucratic procedures for coordination and authorization processes
4. lack of communication between administrations
5. political uncertainty and constant changes in the RES law

The interview analysis of NGOs indicates the barriers:

1. lack of adequate funding of specific NGOs activities
2. limited availability of open application programmes for NGOs

3. non-transparent procedures for the selection of funded organizations
4. unclarity of RES law

The governmental experts stated that it is within their expertise to deal with the barriers:

1. legal
2. financial
3. administrative

The interviews' analyses showed that stakeholders face with legal, financial and administrative barriers mainly because renewable energy sector is under development in Bulgaria. The overall unclarity of RES law, the political uncertainty and non-transparent procedures repel foreign investors. To deal with this problem, the local government should follow the frame of the European RES law, in order to develop best practices for RES implementation. The EU Strategy for 2020 indicates CSR as a relevant part of the European frame for RES development. Therefore, Bulgarian government should develop CSR practices for clear and transparent policies, high ISO standards, and efficiency management systems in order to improve the control and progress of RES.

7.10. Do social and/or environmental activities help to solve these barriers?

The aim of this question was to examine if CSR can improve legal, financial and administrative problems of RES development. High percentage of the international companies gave positive answers. The respondents from Bulgarian RES companies and NGOs gave negative answers, except the positive answer from the NGO Za Zemiata. The reason was that the organization was developing only charitable activities which were based on social and environmental practices. These results showed that the Bulgarian companies did not find a relation between CSR and RES competitive development. High percentage of the corporate respondents stated that the implementation of social and environmental activities in Bulgaria was not regulated by the government. It means that the local companies develop CSR activities on a voluntary basis which is not profitable in short terms. The problem is that the social and environmental obligations for RES companies should be developed on a higher level. International companies are good example for CSR implementation and competitiveness. To meet the international standards, Bulgarian government should increase the awareness of CSR benefits through legal fames and impose implementation of CSR practices in companies.

7.11. Do you cooperate with media, municipalities or other organizations and networks to develop social and/or environmental activities in your business?

The aim of this question was to examine the role of media, national and international organizations for the promotion of CSR in Bulgaria.

- RES companies

Most companies were cooperating with associations, media, and municipalities. The rates were respectively 75%, 68%, 63%. Fewer companies were working together with single NGOs (22%) or a network of organizations (25%). Most of the corporate respondents stated that associations have a very high impact for the development of CSR, since that is their target. In fact, the opinions indicated associations are preferred, than a single NGO, because these are the regional networks to provide information, promote CSR initiatives, consult, plan projects, assist for their financing, defend RES production and supply, monitor social, environmental impact, etc. Further, interviews revealed that companies value the role of associations for representing corporate economic, social and environmental interests in RES field. The respondents stated that associations develop CSR through: cooperation with institutions on local and international level about RES and CSR; analyses of RES law with broaden view on global trends; web-sites with specific information about CSR events; educational lectures about social and environmental issues; charitable activities; global initiatives to promote CSR, etc. It means that corporations rely on associations to initiate activities that offer favorable business conditions for production/trade of renewable energy and secure sustainable growth of RES sector.

The interview analyses revealed satisfaction of the corporate cooperation with media in the context of spreading information. On the other hand, in-depth interviews showed that regional media restricted to report about charitable activities of RES companies in order to limit corporate advertisement. While local media valued and promoted corporate charities because corporations are perceived to be the source of investing in the regional economic development.

- NGOs

The analyses show that NGOs cooperate with media, municipalities, schools and global networks for the implementation of the projects and CSR practices. All of the respondents cooperated with media and municipalities to plan, fund their projects and to attract more volunteers to their activities. The role of global networks was appreciated as a source of practical models for CSR but NGOs cooperated with less international networks due to limited funds.

- Governmental institutions

Governmental experts stated that the cooperation with media, municipalities, associations and global networks is equally important for the implementation of national strategies and projects. The respondents from the Ministry of Economy, Energy and Tourism stated that the achieved results of diverse partnerships were analyzed in economic and social reports in order to take decisions for future objectives and collaborations.

The interviews showed that the benefits of the developed social and environmental activities were not realized by the companies due to less uptake of CSR standards for performance measurement and reporting. The problem of restricted corporate analyzes and implementation of CSR activities was mentioned in the questions discussed above. Baring in mind the importance of CSR incorporation in Bulgaria for harmonization, competitiveness and integration in the EU, CSR promotion should be based on the mutual understanding of CSR benefits and common methodology for its measurement. To this end, Bulgarian government should adopt the European frameworks and measurement systems to count CSR benefits.

7.12. Do you know if Bulgarian companies, governmental organizations and NGOs have developed CSR strategy?

The purpose of this question was to find how corporate long-term policies were organized in Bulgaria in order to measure their effectiveness. The interview analyses showed that CSR strategies were implemented only in large multinational companies and banks because the local government lacks development of that strategy. The analyzed local companies consented that most of the standards were legally required, while the developed CSR initiatives were based on personal motivation.

This indicated that CSR was not developed as a long-term strategy by the companies. On the other hand, NGOs' respondents stated that CSR strategies were adopted by the ecological NGOs and those organizations that are part of international networks. The interviews showed that NGOs perceive CSR as a long-term policy and enhance companies to develop CSR strategies by spreading:

- knowledge and expertise on the implementation of international CSR models and practices
- socially responsible investment in long-term development
- high standards for innovation and efficiency

The in-depth interviews are evidence that NGOs are trying to take a guiding role to assist companies in developing CSR strategies. NGOs stated that the shift of corporate focus to long-term investments and global problems would raise the CSR commitment of Bulgarian companies to a higher level.

SOFENA stated that NGOs make efforts to change corporate attitude to strategic CSR by stimulating implementation of international CSR models for long-term investment.

NGO SPEE stated that they develop strategic CSR by encouraging companies to invest in efficiency, R&D, innovation, etc.

The respondent from NGO ESD-BG claimed that the organization adopted CSR strategy as a member of an international network. The respondent added that the CSR strategy commits the organization to develop environmental and social responsibilities in companies and governmental institutions to a higher level, leading to competitiveness and sustainability.

The analyses showed that Bulgarian companies lack development of CSR strategies because more knowledge, expertise, investments in CSR practices was needed in order to be effective. A significant step towards the strategic investment in CSR was that companies increased their practices for sustainable, long-term development in the last years. Social and environmental standards were applied in corporate policies, management and brand that increased the level of commitment to CSR. This is evidence that international CSR practices are under implementation in Bulgarian companies but higher level of strategic, competitive development is needed. Yet, Bulgarian companies tend to apply CSR as an obligation. The EU market has high requirements

for 20% share of RES in EU energy consumption, 20% energy efficiency and 20% decreased GHG emissions under the EU Strategy 2020. It addressed the need of developing CSR in a strategic way, leading to innovation, efficiency, and sustainability in the long-term. If the national RES companies want to be successful, CSR should be implemented on a higher level in the context of innovation. To this end, the local government should develop CSR strategy to spread awareness and framework about CSR. More efforts should be made for collaboration with NGOs and international networks which is relevant for the strategic CSR implementation in RES companies.

7.13. What is your opinion about the relations among business, authorities and non-governmental organizations in Bulgaria?

This question was trying to reveal what is the role of business, authorities and NGOs to develop CSR. The stakeholders commented on the initiated relations about the unclarity of the new RES law. The opinions showed that companies 'highly appreciate' cooperation with NGOs to defend corporate interests to the local authorities and develop RES. The cooperation with local authorities was based on political instability and legal uncertainty. The companies determined that the collaboration with governmental experts 'lack transparency and trust'. On the other hand, the interviews showed that business, governmental institutions and NGOs cooperate 'successfully' for the development of common community projects because businesses were source of funding for the organizations.

RES companies:

Greentech Engineering Solutions Ltd. stated that the company joined NGOs initiatives to discuss with governmental experts why preferential prices for purchasing electricity would be approved by the governmental Commission next year. The corporate respondent added that the electricity prices must be determined by the local Commission with the construction of RES projects. If the government body lacks certain electricity price, any business plan would not run. The corporate union with the NGOs enhanced legal proposals to governmental experts against the lack of security, predictability, and long-term profit of energy tariffs.

The respondent from Geopower Ltd. claimed that the Bulgarian Wind Association represented a joined proposal against the lack of transparency and public dialogue in the RES law. According to the respondent, the problem was that the number of preliminary approved contracts that could join the electrical network was not publicly available. In this sense, many of the initially approved contracts under RES law were lately refused due to lack of network capacity though that capacity was fairly enough at the beginning. It was pointed out that the corporate unions with NGOs increase the company's capacity to face the political instability and legal uncertainty of RES development in Bulgaria.

The respondent from Autev Ltd. alleged that the company was pleased to cooperate with NGOs in order to deal with the complicated procedures for small electric producers. The problem was that the administrative procedures and the high advance payment of 50.000lv and 25.000 lv limited small capacity installments. It was added that the company developed activities, measures

to promote CSR advantages to households by cooperating successfully with NGOs and municipalities.

The respondent from Motto Engineering Ltd. stated that Bulgarian Wind Association helped the company to discuss the legal uncertainty of the guaranteed long-term purchase of green energy at preferential prices with governmental experts. It was mentioned that RES policy limited foreign investments because of the lack of consistency and stability. The respondent added that the cooperation with NGOs could enhance legal directives for advantages in the accession to the electric network. On the other hand, the company had a good cooperation with municipalities to develop community projects.

The respondent from Egnatia Ltd. claimed that the partnership with national and international leaders, associations, and municipalities in the field of CSR allowed the company to offer high technically-efficient and cost-effective solutions to customers.

According to Vind Ltd. the attitude towards governmental organizations is positive, since these are the organizations that control the legislation in Bulgaria. The respondent added that the cooperation with NGOs was not at the necessary professional competence level. One of the reasons was that some NGOs hide behind their core business activity and actually use it for their own corporate interests.

Non-governmental organizations:

According to BFBL, a main aspect in the problems of RES development was the lack of communication between companies and governmental institutions. The respondent added that corporate opinions and NGOs proposals for RES law were neglected in the process of decision-making. This situation unveiled conflicts, discrepancies to the public which averted foreign investors from the Bulgarian energy market. The respondent shared that the political conflicts led to a negative attitude to the RES energy and renewable installations within the local community.

The respondent from SPEE-BG claimed that the problems in cooperation between companies and NGOs in one side with the governmental institutions on the other were based on lack of communication, criteria, and frequent legislative changes. According to the respondent, the lack of communication failures the investment process in Bulgarian RES market; the lack of criteria decreases corporate benefits, permits and licenses to operate; the frequent legislative changes create chaotic, inconsistent environment for the development of RES energy.

The respondent from ESDB stated that recently the collaboration with governmental institutions was based on the problematic issue of floating preferential prices. The respondent shared that the organization initiated a report to the governmental experts to indicate that the frequent changes in preferential prices created uncertainty in RES market. The report suggested that NGOs would cooperate to support the annual reconciliation of the tariff for uninstalled capacities. The organization argued that the tariff should remain fixed for installed capacities in order to provide price security in long-term. Further, the ESDB respondent mentioned that the organization was making efforts to collaborate with the government to deal with the long administrative procedures for the accession of individual rooftop installations to the grid.

The results showed that the lack of good communication between business, authorities and NGOs limits RES development in Bulgaria. In a corporate perspective, the main problems concerned complex legal framework, uncertain preferential prices of RES energy, ignorance of stakeholders (NGOs, companies) in governmental decision-making, complicated administrative procedures, limited connection to the grid, and instability of the local RES market. The main reasons were in the lack of transparency and consistency, the frequent legislative changes and the need for a stable governance model, providing a management system for coordination, auditing that obtains permits and licenses. The cooperation between companies, NGOs and authorities showed that efforts were made mainly by NGOs but it was evident that problems of unclarity and correct application of the RES law still existed. Bulgaria need to develop a stable energy market in order to attract investments, produce and deliver RES energy competitively. As it was mentioned before, the European RES model implemented higher social and environmental standards in order to increase the transparency, trust, legitimacy and coordination of the European governance and corporate practices. Bulgarian government should realize that implementation of high CSR standards is needed for the progressive and competitive development of the country.

7.14. What are your suggestions to the Bulgarian businesses, authorities and non-governmental organizations for the renewable energy activities?

This question aimed to examine how RES generation and supply could be competitive in the long-term.

RES companies:

The respondent from Motto Engineering Ltd. stated that RES framework should be developed to create stable and competitive environment for foreign investments. The respondent added that there is a need for transparency, credibility, and trust in the governmental system; good coordination and communication between institutions and organizations; inclusion of all the stakeholders in governmental decision-makings by recognizing that NGOs and companies are relevant participants; increasing the awareness of RES benefits among local communities and municipalities.

The respondent from Solarpro Ltd. claimed that an improved cooperation between institutions should increase the awareness about CSR. The respondent stated that the future projects of the company concern small solar installations of 30kW in order to increase the interest and knowledge about RES security and efficiency to the local communities. The respondent added that the local government should develop not only RES strategy but a strategy for social and environmental development because renewable energy deals with energy security and sustainability. Also, the corporate respondent suggests that the local government should develop more community and RES projects because a large amount of the available EU funds for Bulgaria are not used which would lead to sanctions.

The respondent from AE Solar Energy Ltd. stated that governments and NGOs should develop more programmes, lectures, activities to promote renewable energy supply because the knowledge is still limited. To this end, more initiatives should be implemented in universities,

municipalities, NGOs, companies about the meaning of social, environmental responsibilities, and RES. The respondent added that RES promotion deals with customer benefits, such as good services, low costs and secure energy supply. The company suggested that the local government should develop higher standards for social and environmental responsibilities, innovation in order to increase the energy efficiency, security and sustainability of the local business.

According to the respondent from Interstroi-Kaleto Ltd., the local government should increase the standards and the importance of the environmental assessment of energy projects in order to spread knowledge about sustainable development. Further, the government should develop a plan to increase the capacity of energy grid because the current installations limit the accession of further RES projects. The respondent suggested that RES policy should provide flexible preferential prices and fair access for connection to the electric grid.

Non-governmental organizations:

According to NGO Za Zemiata, the local government should simplify procedures and financial support for construction of RES and EE in individual households. Firstly, the respondent stated that these actions would have a huge effect on the local economy as well as enhancing the green business, reducing GHG emissions, energy poverty and the national dependence on fossil fuels imports. Secondly, the respondent claimed that the government should avoid frequent changes in RES law to secure stable environment for foreign investments by establishing clear conditions for RES development. Moreover, it was pointed out that the government should create a national card of RES potential in Bulgaria. It would clearly show the protected areas under Natura 2000, indicate the available capacities of wind and biomass. The respondent added that the national card would create a meaningful authorization of the lands that would limit conflicts with the nature and with farmers. Thirdly, it was suggested that the government should actively use the public procurement to stimulate RES and EE. Also, the governmental experts should use the EU funds to finance RES and EE measures for national and local buildings; to gradually change the automobile parks with electric cars vehicles; to create conditions for employees to travel by bikes through the arrangement of bike lines and secure bicycle parking in front of the offices; to focus on education and the creation of qualified staff to develop RES economy. On the fourth place, the respondent suggested that governmental experts and business leaders should change the outdated thinking that economic growth is associated with increased GHG emissions and pollution. Fifth, businesses should participate more actively in the creation of specific RES laws; to cooperate more with the government and NGOs; to consider nature as a limited resource and to cooperate to develop EE on a higher level. Finally, the future perspective for businesses should be training of employees to work in a low-carbon economy and organizing meetings with the Ministry of Education to develop programmes for higher responsibility to society and environment.

The respondent from ESDB made suggestions to the different stakeholders. First, the local authorities should revise the renewable directive to stimulate RES usage. A wide campaign among institutions, organizations and companies should be organized to promote RES benefits (direct and indirect). CSR policies and practices should be adopted to recognize the importance of RES by decreasing the political lobbying of coal, gas, nuclear power, etc. In regard to transparency, it was suggested that municipal, regional and national databases need to be established about the supply of different RES sources. Moreover, the respondent claimed that currently the public administration dangerously lags, preventing the real RES sector development. It was suggested that the local government should increase the capacity of public administration

in the field of RES. Further, it was added that governmental restrictions, the legal boundaries over RES generation and supply should be narrowed. Higher expertise and awareness of RES benefits should be achieved through less governmental restriction and more CSR practices. On the second place, the respondent made the following recommendations to municipal and regional administrations: to increase the capacity of staff in the field of RES; to comply with RES law and regulations; to develop local energy plans; to create municipal data base for the capacity of RES sources; to aim at continuity in the policy strategy and management of RES supply after political elections. On the third place, the respondent made recommendations to businesses. To develop RES capacity in Bulgaria, investors should focus on technologies for heat production of biomass and geothermal energy. The users should construct RES installations because the cost of energy would be predictable and constant in time.

7.15. What are your suggestions for the following up research?

This question was trying to find complex issues about the relationship between CSR and RES that should be analyzed to increase RES competitiveness.

According to Greentech Engineering Solution Ltd., the development of international models about social and environmental responsibilities is not enough. It was suggested that further research should be done to explain the relationship between corporate benefits and the implementation of social and environmental standards. The respondent added that a research on social and environmental measures is needed to spread the development of European models for higher corporate responsibility, innovation, and sustainability.

According to the respondent from Motto Engineering Ltd., corporate managers lack knowledge and expertise to realize that CSR could solve the problem of energy poverty. The respondent suggested that further research should explore how CSR relates to energy security, energy efficiency, and lower GHG emissions in order to increase the awareness of CSR benefits and its relation to RES competitiveness.

The respondent from Autev AG claimed that social and environmental responsibilities are related to legal obligations in Bulgaria. The respondent suggested that a research should be initiated to explore how CSR standards provide better services to customers and increase energy efficiency. The respondent added that further research on CSR benefits would increase management practices of CSR and corporate reputation.

Non-governmental organizations:

According to SOFENA, a research about the causes of climate change and measurement of GHG emissions should be enhanced. The respondent stated that the issue was legally framed in the international Kyoto directive, concerning reduction of GHG emissions that Bulgaria adopted in 2002. It means that Bulgarian government commits to sustainable development of Bulgarian energy sector. The respondent added that the problem of climate change is complex. The local community is not aware of the influence of climate change, the importance of GHG reduction and environmental protection. It was suggested that further research could increase the public

awareness about climate change and enhance innovative technologies for reduction of GHG emissions, adoption of social and environmental practices, and production of RES energy.

According to SPEE-BG, social and environmental responsibilities increase RES development. The respondent stated that CSR awareness is limited because a network relationship between authorities, NGOs and companies is not well-developed. The problem is that mainly the local government takes decisions about the legislation, corporate standards, and practices which restricts RES development. The respondent suggested that a research about the benefits of relationships amongst different actors, interdependence, and interaction should be developed. It implies a research in network governance, negotiation rationality, public private partnership, etc.

According to Za Zemiata, the development of energy efficiency is a huge problem in Bulgaria. The respondent proposed that the relation between CSR and energy efficiency should be examined to explain how CSR increases energy competitiveness. The respondent added that it would be interesting to be examined the level of GHG emissions in the extractive industries after 2013 when the higher quantity of the emissions must be paid in the fight against climate change.

The respondent from ESDB stated that the following up research should examine practices for corporate transparency, trust, and accountability. The respondent expects that these practices would enhance the establishment of a national database, including the approved and connected RES projects to the grid, which would be available for public access.

The respondent from BEPF stated that a scientific research should enhance the development of a national system for estimation of GHG emissions. It was suggested that the research should propose practices for innovation, efficiency, and sustainable business development. The respondent stated that further research is needed to examine the social and environmental benefits of RES development in order to spread the implementation of green certificates for international trade and certification of RES energy.

Governmental institutions

The respondent from the Ministry of Economy, Energy and Tourism stated that very limited number of sociological research is done about CSR because CSR strategy is not developed on governmental level. The respondent claimed it is expected that more research would raise the awareness about CSR standards, long-term investment and sustainable business development. It was suggested that future research should deepen the understanding of the relationship between CSR and innovation in order to propose frameworks, activities, and standards, concerning clean and efficient energy production through RES development and more efficient use of fossil fuels; improved management of renewable resources; innovative technology for reduction of pollution, diversity of energy mix and low-cost energy supply.

According to the respondent from the Chamber of Commerce in Stara Zagora, more analyzes should be enhanced about CSR development and its benefits in order to increase socially responsible investments, social audit, CSR management and reporting. In terms of energy supply, it was suggested that further research should examine the relationship between RES, energy security, and sustainability.

The respondent from Agency of Energy Efficiency suggested that future research could examine the relationship between CSR and energy supply from biomass or wave energy in order to find practices for stimulating this kind of energy supply.

The respondent from the Chamber of Commerce in Veliko Turnovo stated that CSR aims to spread practices that increase the energy independence and standard of life of the local community. This idea is framed in the EU requirement for development of intelligent electricity supply networks with automation system to stimulate clean electricity production from small electricity installations. The respondent claimed it is expected that the government, companies and NGOs should cooperate to facilitate the accession of small RES producers to the transmission network. It was suggested that future research should find how social and environmental practices may increase energy independence, stimulate intelligent electricity network supply, and engagement of relevant stakeholders.

The research found that the competitive development of RES through CSR depends on the Bulgarian economic development, the adoption of EU directives, and international corporate models. The local RES companies perceive CSR as a compliance with legal regulations, rather than a management strategy for long-term benefits. The competitive meaning of CSR standards is perceived only from the international companies. The fact that the energy mix is highly dependent on fossil fuels indicates that the social and environmental practices are perceived as legal standards. It was found that the overall energy supply is provided by low—efficient technologies, leading to considerable losses in the electricity transmission and distribution network. It was found that, CSR measures for highly efficient technologies are limited because a behavior towards environmental responsibilities and energy efficiency is not set in the culture of Bulgarian consumers. This restricts the promotion of CSR and RES supply. Moreover, the results show that the interest in social and environmental responsibilities is limited, because the consumers' behavior is oriented to the lowest available price which is currently provided by fossil fuel supplies. In this sense, CSR practices are perceived as an expense, rather than a long-term investment. The local government contributes to the negative attitude to CSR among the public, by spreading information that the additional cost for green energy raises the final energy cost.

On a governmental level, the awareness of CSR is limited. It was found that a long-term strategy in the governmental decisions is missing. The national commitment to sustainable development is followed as a requirement in the EU regulations of Kyoto Protocol and EU Strategy 2020 (Directive 2009/ 28/ EC) but CSR benefits are not realized. CSR strategy has not been developed because it is perceived as a voluntary commitment of businesses to social causes. Therefore, CSR value for RES development is not perceived. The research found that the spread of CSR practices is based on the adoption of EU regulations and on the implementation of international corporate models.

On corporate level, it was found that the long-term administrative procedures, the unclarity of RES law, and the overloaded capacity of the energy grid reduced the investors' interest in Bulgaria. The promotion of RES supply is based on economic measures of feed-in tariffs and compulsory purchase of energy while the economic and environmental measures are regarded as not beneficial. Moreover, the government lacks measures for reporting, transparency, and long-

term forecasting of RES supply. Practices for social audit are not developed due to lack of expertise.

Conclusion:

The role of CSR is crucial to raise the awareness that social and environmental policies must be developed to provide sustainable energy model in Bulgaria. The prolonged transition period and the unsuccessful attempts of the local government to adopt strategy for sustainable development have created needs for reforms. Corporate managers have to realize that social and environmental policies are important for corporate sustainability. The adoption of CSR policy would provide understanding of the business case of CSR and the idea of long-term investments. Having a CSR agenda, the local government will be provided with a framework for taking long-term decisions about the future energy generation, consumption, efficiency, and GHG emissions. The development of CSR policy will tackle the problems of high fossil and nuclear energy generation. Renewable energy generation would be priority. CSR would promote transparent system for records on GHG emissions.

A current problem is that RES promotion is restricted due to the culture of Bulgarian customers to use the cheapest energy supplies provided by fossil fuel and nuclear energy, rather than secure and environmentally-friendly RES energy. It means that the awareness about the risks of nuclear supplies is limited and the consumers' preference is oriented by the price. The research found that the price is a measure not only for consumers but in the governmental policies for energy supply, enhancing short-term benefits. This fact can be realized from the governmental plan to build a nuclear power plant Belene. It means that the government lacks understanding of the long-term benefits for developing a sustainable energy supply. The main reason is that corporations do not realize the importance of investing in social and environmental practices in regard to innovation, efficiency, and sustainability.

The role of RES is important for the development of competitive and sustainable energy supply in Bulgaria. The European Strategy 2009/ 28/ EC set the national goals for increasing RES supply (16%), higher EE (20%), and development of smart grids for efficient RES. The National Plan of the European Strategy 2020 set the goals for EE to 50% as the Bulgarian energy intensity is one of the highest in the EU. In economic perspective, the sector is almost entirely dependent on energy imports. Values of competitiveness are tied down by the inefficient technologies (CSD, 2010).⁶⁰ Clearly, the generation of domestic energy supply and innovation are needs that must be addressed for the long-term being of the sector. Low technical progress and limited capacity of the energy grid are other characteristics of the sector (CSD, 2010).²⁷ Thus RES share in the electricity production consists mainly of hydro energy, while some photovoltaic and wind powers are not accessed to the grid due to its limited capacity. The real problem is that the very little enhancement of RES in the future will fail the transition of the conversional energy to a sustainable one.

⁶⁰ Center for the Study of Democracy (CSD), (2010), 'The Energy Sector in Bulgaria: Major Governance Issues', Center for the Study of Democracy.

According to the European Renewable Energy Council (EREC)⁶¹, future RES projections require 100% RES to secure competitive and sustainable business development of the EU in 2050. If Bulgaria wants to provide competitive energy supply, CSR practices must be developed on a higher level.

The local government needs to use CSR strategy to promote competitive energy supply. The development of CSR strategy must be in accordance with the European frameworks to provide a license for Bulgarian RES companies to the EU market. The implementation of CSR practices should be enhanced to secure a sustainable model of the energy mix. The government needs to develop policies for innovation and support investments in R&D to upgrade the level of technological development as well as to secure efficiency of energy supplies. The governmental policies for social and environmental responsibilities need to provide awareness that implementation of higher CSR standards is investment in innovation, energy efficiency, and provide the transfer to low-carbon economy. Government strategies need to impose CSR standards in corporations to combat climate change, enhance energy efficiency, and reduce fossil fuel supplies. CSR measures for reporting, long-term planning need to be implemented in order to provide transparency trust in the governmental system and decrease practices of corruption. The government needs to promote energy efficiency and energy independence by using the EU available funds to spread practices of social and environmental responsibilities among households. Moreover, the government needs to implement CSR practices in a way to promote monitoring of energy supply. In this sense, CSR should be used to measure the development of RES and EE. A National Sustainable Energy Strategy need to be developed to suggests further measures for energy efficiency and RES in order to increase the awareness about the meaning of CSR. It is necessary for the government strategies to relate RES competitiveness with implementation of CSR practices in order to secure sustainable energy model in the future. Bulgarian government needs to implement CSR standards in order to meet the EU targets for independent supply from fossil fuels until 2050.

Recommendations:

The research suggests that the local government, RES companies, and NGOs need to follow international models in order to spread knowledge about CSR and its relation to competitiveness and sustainability. Promotion of RES supply is necessary to provide understanding about the benefits of long-term investments. To this end, the government should develop CSR strategy and impose practices for its implementation. Cooperation between the government, RES companies, and NGOs is needed for the successful implementation of CSR practices in order to reach a level of highly efficient and sustainable energy supplies.

To the present, management systems do not appreciate enough value aspects of different stakeholders while taking strategic decisions. The problem of meeting expectations of different stakeholders for achieving higher performance and profits exists in efficient management systems. Stakeholder theory defined by E. Freeman is a way to solve the problem by determining

⁶¹Prof. Zervos, A. et al., (2010), 'Re-Thinking 2050: A 100% Renewable Energy Vision for the European Union', European Renewable Energy Council (EREC).

different stakeholders (community, environment, employees, customers, suppliers, shareholders) and addressing their values needed to be considered from managers. The development of CSR practices is needed to create a relationship between corporations and the society.

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APPENDIXES

APPENDIX 1: Definitions of CSR

National RES Companies	Definitions of CSR
Aleksia 2002 Ltd.	The respondent stated that ‘CSR is a corporate commitment of responsible behavior towards employees, society and the environment. We aim to use CSR as a tool to decrease the harmful environmental impacts by enhancing renewable energy supply’. It means that the company uses CSR as a policy for sustainable business development. It is understood as a corporate framework to promote responsible business behavior to employees, community and the environment.
Ariel Ltd.	The corporate manager perceives CSR as a corporate obligation to apply social and environmental standards, showing responsibility to the environment and community. Therefore, the company adopts CSR as a mean to carry out its duties to the environment.
Autev AG	The interviewee defined CSR as part of corporate strategy for high standards in innovation, efficiency and environmental technologies. It enhanced the corporate work in international level with business partners, suppliers and auditors. The respondent pointed out that the high corporate standards enhanced LED lighting technology to win awards in the field of innovation and environmental technologies.
Biopower Ltd.	According to the interviewee, CSR is part of the corporate strategy for responsible management and implementation of the projects for heating systems, thermal power plants on biomass energy by developing the energy efficiency and green certification of buildings, based on RES law. In this sense, the company perceives CSR as a management strategy.

Borko Ltd.	According to the respondent, the company uses CSR as a certificate to enhance project planning, building permit, corporate audit and to create relationships with wind energy companies and associations, such as Electrawinds, the Association of Producers of Ecological Energy, Bulgarian Wind Energy Association, etc.
Erato Ltd.	The respondent considers CSR as a part of corporate target to develop skills, practices, new technologies for energy generation from biomass.
Interstroi – Kaleto Ltd.	The manager defined CSR as the corporate responsibility to employees and the environment for good working conditions under the ethical codes of conduct and implementation of environmental technologies, making the energy supply reliable and efficient.
Vind Ltd.	The respondents stated that a common definition of CSR cannot be given but all the social and environmental requirements are applied in the company.
Multinational RES Companies	
AE Solar Energy Ltd	The respondent perceives CSR as corporate governance of ethical principles, corporate transparency, responsible business behavior, corporate social performance, meaning that CSR is related to a strategy of corporate governance.
Charger Decor Ltd.	The corporate manager stated that ‘CSR encourages deployment of standards to decrease environmental footprint by clean technologies and energy diversification.’ It means that the company applies CSR as a measure to increase energy efficiency, RES supply and sustainability.
Ecosist Ltd.	The interviewee stated that CSR is the corporate responsibility to employees and society for higher standards of development, improved working conditions, decreased GHG

	emissions, which are necessary for the business development.
Geo Power Ltd.	The interviewee stated that CSR is a way to achieve Geopower's mission and vision. The corporate mission uses CSR to create: corporate harmony with the environment; incorporation of new technologies for RES generation; security of energy supply; highly qualified team of experts, and competitive advantage. The corporate vision uses CSR approaches to gain valuable corporate image.
Greentech Engineering Solutions Ltd.	The company adopts CSR as a value added, according to the respondent, to enhance business planning, reporting, energy supply services and greenhouse gas prevention.
IRES Bulgaria Ltd.	The interviewee defined CSR as the corporate social and environmental obligation to decrease customers' dependence on fossil fuels, to provide optimized energy costs, secure and clean energy supply.
Motto Engineering Ltd.	According to the respondent, CSR manages corporate social and environmental activities to enhance customer services, transparency, create stakeholder partnerships to fight greenhouse gas emissions by RES investments.
Neven-SIG Solar Ltd.	The office manager stated that CSR is a top-management concept, providing the company with opportunities for new markets; competitive corporate image of a reliable supplier; quality standards for high production capacities, which increased the turnover of Neven-SIG Solar Ltd. in the last year. Moreover, the company uses CSR to improve the labor safety, work conditions and machinery equipment.
Solarpro Ltd.	The respondent said that CSR is the social strand of corporate policies for responsible attitude to the employees, community and the environment which create legitimacy, community partnerships and decrease

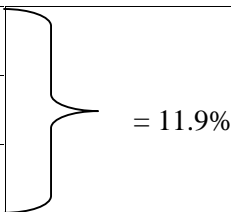
	greenhouse gas emissions.
Eurodesign Ltd.	The respondent explained that a common CSR definition has not been provided from the government but the corporation follows all the required social and environmental standards.
Non-Governmental Organizations (NGOs)	
Za Zemiata	The interviewee stated that CSR is a concept to promote energy efficiency and RES supply as a sustainable alternative which outperforms conventional methods for energy generation.
SOFENA	The organization defined CSR as an integral part of its mission to work for public benefit, energy efficiency and sustainability by cooperating with relevant organizations, joining networks, associations, supporting trainings and projects in the process of promoting RES supply.
TIME foundation	According to the respondent, CSR is developed strategically in the organization through social activities and green certificates EMAS, but when CSR is not perceived correctly, it turns to a greenwashing concept.
Business Organizations (BOs)	
Bulgarian Forum of Business Leaders (BFBL)	The respondent characterized CSR on a global and a business level. From a global perspective, CSR is perceived as a responsible attitude to the resources today that would ensure the future of the next generations. In corporate perspective, CSR is 'a mode of operation that takes into account the interests of all stakeholders and the environment'.
Bulgarian Environmental Partnership Foundation (BEPF)	The respondent described CSR as a long-term attitude and a corporate policy which is not a greenwashing, but generates activities to meet community needs by solving social and environmental problems.
Energy for Sustainable Development (ESD)	The respondent perceives CSR as a policy, which should be part of the long-term corporate strategies to achieve sustainable business development.

Bulgarian Photovoltaic Association (BPVA)	The respondent stated that the role of CSR activities is in the implementation of solar power plants for the development of clean energy supply and urban climate-protection.
Bulgarian Wind Energy Association (BG WEA)	The interviewee defined CSR as the mission of BGWEA organization to be a constructive partner to all stakeholders of the wind energy sector in Bulgaria, such as: the government, the legislature, NGOs, industry experts and mainly the community, in order to achieve sustainable business development of the wind energy sector.
Association of Producers of Ecological Energy – Varna (APEE – Varna)	The respondent stated that CSR includes intelligent management of resources; raising the awareness of the benefits of using RES at individual and global level; shifting from conventional to alternative power generation, which can be concluded in: governance, RES supply and energy efficiency.
Association of Producers of Ecological Energy – Blagoevgrad (APEE – Blagoevgrad)	The respondent stated that CSR reflects the nature of the organization, having the mission to create activities, events and projects that are recognized from the stakeholders.
Governmental Organizations	
The Ministry of Economy, Energy and Tourism of the Republic of Bulgaria	The interviewee stated that that a national CSR concept is not defined and the common EU framework should be used: (CSR is) ‘a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis’.
The Ministry of Environment and Water of the Republic of Bulgaria	The interviewee declared that the idea of CSR is to help to businesses, it concerns the business but the concept is not framed on a governmental level. The European definition of CSR has to be used.
Agency of Energy Efficiency (AEE)	The respondent stated that the institution supports Sofia Municipality and SOFENA NGO in the implementation of social and

	<p>environmental activities for good governance and sustainable business development. The respondent explained that the institution uses the detailed CSR definition in the context of the EU Green Paper⁶³: ‘By stating their social responsibility and voluntary taking on commitments which go beyond common regulatory and conventional requirements, which they would have to respect in any case, companies endeavor to raise the standards of social development, environmental protection and respect of fundamental rights and embrace an open governance, reconciling interests of various stakeholders in an overall approach of quality and sustainability’.</p>
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⁶³ European Commission, (2001), Green Paper ‘Promoting a European Framework for Corporate Social Responsibility’, ISBN 92-894-1478-2.

APPENDIX 2: RES Use in Final Energy Consumption (FEC) among Bulgarian Energy Sectors

ttoe (Thousand Tones Oil Equivalent)												
Sectors for final energy consumption (FEC) and EE	FEC of RES	FEC of Conventional energy	Total used energy (RES & Conventional)	Energy price ⁶⁴		Energy Turnover		Instruments for EE efficiency				
				RES energy	Conventional energy	RES turnover	Conventional turnover					
Industry	155	2 376	2 531	0.00372= ~0.004	0.10595= ~0.11	0.006%	2.61%	Bulgarian Energy Act				
Transport	3	2 724	2 727	1.7	2.5	0.05%	68.1%	Energy Strategy of the Republic of Bulgaria up to 2020				
Service	767	2 666	3 433	0.00372= ~0.004	0.10595= ~0.11	0.03%	2.93%					
Households	716	1 546	2 262	0.00372= ~0.004	0.10595= ~0.11	0.03%	1.24%	Renewable Energy Act				
Final energy consumption (FEC)	925	7 766							National long-term programme for supporting RES 2005-2015			
Total FEC	8 691											
EE of using RES	EE consumption of electricity								= 11.9%			Second National Energy Efficiency Action Plan 2011-2013
	EE consumption of heating and cooling											
EE consumption in transport sector												
Factors for EE development based on CSR standards ⁶⁵												



⁶⁴ Energy prices are based on the tariffs of CEZ electricity-supplies company (one of the 3 main electricity-supplies companies in Bulgaria: CEZ, E.ON and EVN) at: <http://www.cez-rp.bg/bg/home.html>.

⁶⁵ Factors for EE development are indicated in the report of the Ministry of Economy, Energy and Tourism of the Republic of Bulgaria (2011), 'Second National Energy Efficiency Action Plan 2011-2013', Sofia, Bulgaria.



- **Improved use of local energy sources** –using local coal potential with high-efficiency and low-carbon technologies. Regarding this EE element, implementing CSR standards would improve energy security
- **Improved energy efficiency (energy saving)** - includes energy saving from power generation process as well as energy saving from transmission and distribution processes to the final consumer. The adoption of CSR standards, concerning this component of EE, ensures high-quality and reliable supplies of electricity.
- **Corporate diversification** – production of profitable goods on the market associated with long-term investments. The implementation of CSR standards ensures investments would be returned repeatedly in time.
- **Increased Share of Renewable Energy Sources** – secures high potential of energy saving to reduce primary energy consumption (PEC) in energy sectors: households, industries, services and transport. Incorporation of CSR standards for RES development encourages high competitiveness in energy sector, security of energy supplies and protection of the environment.
- **Cogeneration** – is EE factor for using combined heat and power generation. Incorporation of CSR standards assures the efficiency of this process.
- **Technologies** – EE factors to reduce losses of energy generation and consumption. CSR standardization is implemented to ensure electricity supplying at minimal prices.
- **Competition** – is ‘a key factor for efficient CSR implementation’ and effective RES development (Lanoiselee, F., 2010).⁶⁶

The table shows RES use in Final Energy Consumption (FEC) among Bulgarian energy sectors (industry; transport; service; households) and EE relation to CSR standards
Sources: National Statistical Institute (NSI), 2010

⁶⁶ Lanoiselee, F. (2010), ‘Are Competition and Corporate Social Responsibility Compatible? The Myth of Sustainable Competitive Advantage’, Université Paris-Dauphine, Paris, France.

APPENDIX 3: List of RES Companies & Organizations

	Multinational RES Companies	National RES Companies	Non-Governmental (NGOs), Business Organizations (BOs) & Governmental Organizations (GO)
1.	AE Solar Energy Ltd.	Aleksia 2002	Za Zemiata (NGO)
2.	Charger Decor Ltd.	Ariel Ltd.	SOFENA (NGO)
3.	Ecosist Ltd	Autev AG	TIME foundation (NGO)
4.	Geo Power Ltd.	Biopower Ltd.	Bulgarian Forum of Business Leaders (BO)
5.	Greentech Engineering Solutions Ltd.	Borko Ltd.	Bulgarian Environmental Partnership Foundation (BO)
6.	IRES Bulgaria Ltd.	Erato Ltd.	Energy for Sustainable Development (BO)
7.	Motto Engineering Ltd.	Interstroi – Kaleto Ltd.	Bulgarian Photovoltaic Association (BO)
8.	Neven-SIG Solar Ltd.	Vind Ltd.	Bulgarian Wind Energy Association (BO)
9.	Solarpro Ltd.		Association of Producers of Ecological Energy - Varna (BO)
10.	Eurodesign Ltd.		Association of Producers of Ecological Energy – Blagoevgrad (BO)
			The Ministry of Economy, Energy and Tourism of the Republic of Bulgaria (GO)
			The Ministry of Environment and Water of the Republic of Bulgaria (GO)
			Agency of Energy Efficiency (GO)

APPENDIX 4: Interviews

	1.Implemented RES Projects 1. solar 2. wind 3. biomass	2. RES Projects Under Development 1. solar 2. wind 3. biomass	3.Under standing of CSR 1.respon sibility 2. increased RES supply	4. Internal Obligations or Guidelines for CSR 1. ecological 2.measurement of energy efficiency	5. Externally Reporting or Promotion of CSR practices	6. CSR as part of corporate policy 1. external benefits (from community) 2. internal benefits (from the firm)	7. Do users ask for CSR when projects are implemented? 1. legal 2. administrative 3. financial	8. Do you implement CSR practices? Yes	9. Barriers in RES projects 1. Legal 2. administrative 3. high price of RES generation 4. high price to connect to the grid	10. Does CSR help to overcome the barriers? No	11. Cooperation with media, municipalitie s, NGOs for CSR development Yes	12. Knowledge on CSR developme nt in Bulgaria	13.Relations between business, authorities and NGOs in Bulgaria 1. government- no cooperation 2.stakeholders – look for self interest, etc.	14. Suggestions to the Bulgarian business, authorities, and NGOs for further development. 1. governmental support 2. communication	15. Suggestions for the following up research
1. Aleksia 2002	We don't have implemented projects.	Biomass plant 999kW (processing of animal & vegetable substances) to produce electricity.	Promotes responsible business behavior (to employees, community &the environment) & increases RES supply	Ecological requirements (in the Nitrates Directive)	No	CSR is part of the corporate policy to: 1. community, because of the benefits: -source of RES energy -creates new jobs -effective use of the end product of biogas 2. firm, because of the benefits: -source of additional income - the revised stable manure is an excellent product for fertilizer;	Yes. According to procedures in the Regional Inspectorate of Environment & Water (RIEW) and in municipalities, the institutional intent is publicly discussed and when the result is positive, the construction of the project is permitted.	Yes. 1. modernized mashines – we purchase tractors, trucks, etc. that meet EU requirements for eligibility of GHG emissions; 2. sealed storage tanks (lagoons) – limit the harmful effects of manure on nature	-Cumbersome bureaucratic procedures for coordination; -problems with authorization processes & documents;	No.	Yes, we cooperate with media, municipalities & NGOs associations to discuss to different possibilities for the realization of RES projects & their impact on society & nature.	No.			
2. Ariel Ltd.	Water Plant ‘Petrovo’ – 2.45MW , in 2002 we bought this water plant from the Privatization Agency in the village of Petrovo Municipality.	1. cogeneration for heat 2. installing power for cooling	Implementing social & environmental activities as a responsibility to the environment and to the community	No additional requirements are applied beyond the legal obligations;	No	Yes, our policy has a long-term perspective for developing RES supply. The firm strategy could reserve the work of our employees despite the current crisis.	Users are interested in lower prices. NGOs encourage consumers to use green energy if they want long-term supplies and reduced GHG emissions. In this case, the psychological element is important. The media and NGOs must prepare the consumers to pay more expensive energy – with 1%-2% increase because of the green energy. But this mechanism and policy are not formed yet.	We apply social practices to preserve the jobs of our workers in times of crisis and we plant vines, fruit trees which we have cut down during our work.	1. The state does not promote the green energy because it is not provided by the law. A policy need to be implemented to prepare the population to pay higher prices for electricity because of the green energy. 2. The price of green energy is 2.7% of the energy price (16ct). Currently, according to RES law, the price of energy supplies falls while the price of energy generation remains high. Further, RES law suggests increase of energy prices with 15% , but does not stimulate & secure the energy generation. 3. unclarities in RES law for accession to the distribution network & purchasing of green energy; lack of security; RES law does not provide prerogatives & hinders the work of small RES capacities with 30kW; Small RES capacities need to be supported if the government wants to reduce conventional energy supply. 4. the administrative procedures are long and cumbersome, making the process of approval of RES projects troublesome – from the grid accession to the grant of a permit for green energy supply.	No, because nobody is interested if we produce the energy more socially or more environmentally -friendly.	We participate in the association ‘Union of Producers of Ecological Energy - BG’ (SPEE-BG). The aim of the NGOs and media is to promote green energy supply to customers, but their activity in this area is not well developed.				
3. Biopwer Ltd.	1. Heating plant on biomass – 3 MW in town Ihtiman 2. Cogeneration plant on sewage – for biogas supply, situated in Sofia 3. Photovoltaic plant – 1MW, Varna area, Burgas municipality; 4. Photovoltaic plant – 1.3MW, village Granitets, Burgas municipality.	Projects on biomas & biogas		Yes, the company developed rules for working. Additionally the company is certified with ISO 14001 as well as provides the necessary audits and evaluations, according to the RES law.	Yes, mainly reports about the assessment of energy efficiency, defining possible ways to improve the economic situation of RES projects by introducing energy efficiency measures.	Yes. Biomass heating has a huge social & environmental impact, as evidenced by our project in Ihtiman. The price of heating is much lower than the cost of heating with diesel, oil, gas, even lower than the cost of heating with natural gas. This makes the heating on biomass more accessible & preferred to the other alternatives. The reduced environmental impact is in the high-efficiency combustion of wood-biomass in a modern boiler, having filtration system for minimal GHG emissions & dust. While the previous systems , working for 30-40 years were functionally outdated, operating with fuel oil/diesel without GHG filtration. The older systems were spreading huge amounts of soot, dash, ash, emissions that smoked the city & created smog. Currently, the Mayor of the city & residents reported that the elimination of the outdated boilers with the usage of	Consumers are interested in the benefits they could receive & if the services are accessible.	Yes. The example about our project in Ihtiman is described in question B6. Additionally, in regard to our project on biogas supply from sewage effluent in Sofia. Before the implementation of our project, biogas was used to be extracted from sewage & was burned without being utilized. This burning process used to release many GHG emissions. The implementation of our project has reduced GHG emissions significantly, while electricity & heat were generated for the technological needs of the plant.	The legal framework is improving but there are gaps that bring uncertainty in investors (accession to the grid, long administrative procedures, etc.) The main barrier is finding the financing for the construction of power plants on biomass.	No.	No.	No.	The government does not cooperate with businesses to discuss their problems or follow corporate suggestions for improvements.	Bulgarian business & the government should find opportunity for dialogue & better communication in determining the policies that affect the development of RES sector.	The future researches should make comparisons of green energy price between the Bulgarian RES sector & the European RES sectors.

						distinct heating on biomass brought significant reduction of GHG emissions. Our policy is to offer these social and environmental benefits to each possible location in Bulgaria.									
4. Borko Ltd.	<p>I. Implemented projects:</p> <p>1. Wind plant ‘Shabla Sever’ – 4MW at Shabla, Dobrich area;</p> <p>2. Wind plant ‘Shabla Yug’ – 4MW at Shabla, Dobrich area</p>	<p>II. Projects under implementation:</p> <p>1. wind plant ‘Shabla Zapad’ – 1.6MW at Shabla, Dobrich area;</p> <p>2. wind plant ‘Florina’ – 4.8MW at village Gorichane, Shabla & Dobrich area;</p> <p>3. wind plant ‘Chervena Yabalka’ – 3.2MW at village Gorichane, Shabla & Dobrich area;</p> <p>4. wind plant ‘Prima’ – 2.4MW at Gorichane village, Shabla & Dobrich area;</p> <p>5. wind plant ‘Sarnino’ – 3.2MW at Sarnino village, Dobrich area;</p> <p>6. wind plant ‘Omurtag’ – 13.8MW at Omurtag, Targovishte area;</p> <p>7. wind plant ‘Shumen’ – 27.6MW at Zvegor village, Shumen area.</p>	III.	IV. No, because we still do not produce energy which is owned by our company.	V. No, mainly we report data on wind speed which we use for the construction of RES projects.	VI. Yes, we work to spread the development of green energy supply.	VII. No, because it is believed that green energy increases the energy price. Further, very few people can afford the renewable technologies due to the high price.	VIII. No, we do not implement more activities than those, required by the RES law. We cooperate mainly with firms and investors to develop RES supply.	IX. We meet problems of the high prices for connection to the electricity grid, determined by the new RES law. Many investors paid the required prices for accession to the grid. The inexperienced administration approved many of the applications. The grid was overloaded and many of the projects were stopped. In fact, these legal barriers are created initially to prevent RES development. It can be realized that in the future RES supply will be much more profitable but currently, conventional energy supply is more advantageous to the local government.	X. Not, currently. To promote RES supply, the government should enlarge the capacity of the electricity network. Also, the equipment should be modernized because the spread of RES supply does not require consumables.	XI. We promote the activities of our company through the website. Moreover, we participate in Bulgarian Wind Energy Association (BGWEA).	XII. No.	XIII. Stakeholders look after their own interests. Cooperation is performed in cases of mutual benefit. In most situations, companies cooperate with environmentalists to meet particular standards by installing renewable technologies.	XIV. The government restricted our business totally. We ask the government, if it is does not want to enhance our business, at least not to hinder it.	XV. I suggest that more researches should be done about the development of RES supply and its relation to social and environmental benefits. The community needs to realize that the development of RES supply is related to high profits in the future, rather than huge immediate profit.
5. Charger Decor Ltd.	The main activity of our company is designing and building systems for production of electricity from the renewable energy source – sun.	Currently, we are constructing several photovoltaic plants, rated between 5kW and 100kW. Moreover, dozens are in advanced stage of preparation for implementation.		Rather not, but a trend of ‘literacy’ the consumers of our products in noted. The demand for RES supplies requires application of economic, social, and environmental responsibilities.	Most of our customers are beneficiaries of EU operational programmes. To meet the EU criteria, we need to produce (consider) such external reports.	Absolutely, they are part of our policy.	Rather, the EU directives force them to be interested and to comply with environmental and social activities. But this is early education on the topic. Ultimately, the demand has changed and this is the most important effect, rather than a cause for a change.	Social measures are related to implementation of new business in small and medium enterprises, namely a new type of manufacturing activity. From this perspective, the social effect is related to the opening of a few jobs mainly in the underdeveloped, rural areas. We consider that the environmental measures do not need a comment.	This theme is long. The procedure for the implementation of such a small project around 100kW is associated with large pre-investments (10-12% of the total investment) and long time (10-12 months, of which about 3 months for the implementation of the system itself). The legal process is complicated by constant changes in laws and regulations (their idea is the prevention of corruption schemes, but the effect was the occurrence of more barriers to the development of the sector). Despite the efforts, the EU bank lending remains one of the most inefficient in the Bulgarian RES sector.	All the barriers listed in B9 are not associated with social and environmental effects of projects, but only with the economic aspect.	We are working with different levels of public administration . We have more trust in working with associations. Unfortunately , our sense is that the mass organizations and companies have not yet reached the satisfactory levels of the understanding on the subject of various mechanisms for protecting the environment, and above all, the total economic impact of all the various measures for that.	We are not aware if there are any.	Their cooperation is still separated by many barriers. A successful form of dialogue is not reached because they are working on different priorities.	Clarification of criteria, rather than burdensome procedures.	We believe that the sector is developing at a satisfactory rate.
6. Erato Ltd.	<p>Biomass projects:</p> <p>1. (in 2004) automated heating boiler on wood biomass – 500kW thermal power. Erato has manufactured and installed the boiler in ‘Ivan Scenderov’ hospital, town Gotse Delchev. The project was funded by the Dutch Programme for Economic Cooperation with Central & Eastern Europe (PSO) together with the state agency (Center International) of the Ministry of Economy of the Netherlands.</p> <p>2. (in 2005) heating boilers - 1.2MW wood biomass supply heat for 2 residential buildings, 4 industrial buildings & 3 public buildings in Sofia, Haskovo, & Kardjali. The project was funded by the EU Bank for Reconstruction & Development through the credit line for financing EE projects & RES supply.</p> <p>3.(in 2006) automated boilers on wood chips – 1200 kW capacity in hospital ‘Ardino’, school ‘Hr. Botev’, school ‘V. Levski’ in town Ardino. The project was funded by the Japanese Trust Fund,</p>	<p>Preparation for application in 2 procurements for schools & kindergartens:</p> <p>1.SolidStandard s Project (www.solidstandards.eu)</p> <p>2. GBE Factory Project (www.gbefactory.org)</p>	CSR develops skills, practices , new technologies for energy generation from biomass. Further the respondent added that CSR is related to corporate strategy; managerial competencies; corporate culture; strategic competitive advantage.		No, but Erato Holding is actively committed to governmental initiatives: participation on working groups of the Committee on Energy of the Ministry of Economy; Forestry Agency Executive to the Ministry of Ecology. The company participated in drafting the legislation on EE & RES law.	Yes, we have a social policy as well as we are promoting environmental-friendly practices at local, regional, and national level.	Yes, definitely. Most of the projects are financed by the Operational Programmes under the Structural Funds. The beneficiaries have priority in the approval of the projects if the project involves environmental impact of reducing GHG emissions & tiny dust matter. Biofuel production – pellets & chips is financed with priority under the RDP programmes	Yes, we introduce now standards on the environment; effective planning processes used to optimize the human & material resources; timely reporting & control activities in the company through delivery & implementation of specialized software – ERM & IOM systems management.	Legal, administrative, financial. The potential customers, equipment suppliers, engineering firms, financial institutions lack information & understanding of energy efficiency & ESCO model for energy efficiency in buildings. Lack of experience in financing ESCO projects. Lack of confidence in new technologies. Lack of confidence in the ESCO because of little experience. Lack of understanding of patterns of energy use & the lack of such data. Low priority & motivation for energy efficiency measures. Administrative barrier: procurement. Complicated procurement procedures which prevent the use of ESCO projects in the public sector. For example, long procedures for the development of the projects & for their implementation. The barrier of RES law & lack of governmental support. This concerns unclarity in RES law & lack of	Partly.	Yes, ERATO is active in PPP in order to create Sustainable Energy Communities or regions in which politicians, experts, authorities, market actors & citizens actively cooperate to achieve a higher degree of decentralized energy supply, giving preference to RES supply & EE measures in all end-use sectors. We are interested in environmental media – participating in interviews, articles, etc; Ecology & Energy Magazine, TV 7, BTV. Heat Magazine, Household, Bioenergy international	Yes, some international companies have CSR strategies.	More resources, time, qualified staff, and initiatives are needed for the development of suitable climate for good relationships between these stakeholders.	A broad and purposeful state policy needs to be conducted to enhance and promote the technology and the processes, related to the utilization of biomass in the community. Opportunities for wood biomass supply should be used to reduce the energy dependence on global market suppliers in Bulgaria by investing in the implementation of effective and environmentally friendly technologies thermal energy for heating. For instance, a targeted state policy would be useful by: 1.by providing grants and privileges for the exchange of fuel based with biomass energy supply or for the construction of new installations	Participation in the international projects and programmes of the EU. Dialogue and cooperation for RES development.

	<p>the World Bank, under the programme ‘Initiatives Related to Climate Change’ & is implemented by the Bulgarian Ministry of Agriculture & Forestry together with the National Control of Forest.</p> <p>4. (in 2008) project ‘Green Energy’ – 2000 kW capacity, including construction of a heating boiler plant on biomass for distribution & consumption of heat (ESCO scheme) in Haskovo; 1000 kW combustion chamber on wood pellets in Haskovo; installation of 300kW heat boiler plant (ESCO scheme) in Haskovo. The project was funded by the EU Bank for Construction & Development.</p> <p>5. (in 2008) construction of a heating boiler plant on wood chips – 300 kW in Elhitsa, town Chepelare. The project included implementation of audit work, design, installation, commissioning & turning the automatic boiler. The project is funded by the municipality of Chepelare.</p> <p>6. (in 2008) construction of boiler plant on wood chips – 230 kW capacity, plus additional 120kW thermal power. The project included supply, installation, commissioning & turning the automatic boiler. Funded by Erato Holding.</p> <p>7. (in 2008) project ‘Roadmap for Market Penetration of Technology for Combined Production of Thermal Heat on the Basis of Wood Biomass & Hot Water for Domestic Supply through Heat Pump System’. A partner on the project is Black Sea Regional hub. The project is funded by the 6th EU framework programme.</p> <p>8. (in 2009) Bio-Sol-ESCO – Erato Holding Bulgaria is a partner in this EU project for expanding the use of biomass & solar heating of municipal & industrial sites by offering energy services. Among the other partners are: Oxford City Council – Britain, University of Reading School of Business – Britain; SOLID –GmbH – Austria; EIHP – Croatia; HEP ESCo – Croatia; Thames Valley Energy Limited – UK, SunSys – Germany; Center for Renewable Energy Sources – Greece; Mediterranea Egnatia-Italy; Costruzioni Solari Srl – Italy; Uniconfort Spa – Italy.</p>								<p>stimulation of the regulatory framework for RES energy, EE & ESCO model.</p> <p>The barrier of Project Financing . The access to capital & funding is limited. The financial institutions are not ready to finance ESCO projects.</p> <p>Barrier of lacking ESCO network/association. Lack of well-organized ESCO sector, which is necessary to provide information & advice on ESCO schemes; to lobby, to adapt an attractive & stimulating regulatory framework; to standardize definitions & procedures, and to provide funds for the sector.</p> <p>Barrier of qualified personnel. Lack of qualified personnel.</p>		magazine.			<p>on biomass in households;</p> <p>2. creating favorable conditions for clusters among joined market player, such as companies in logging and in wood processing, transportation and logistics structures, biofuel from waste biomass, companies offering facilities for effective utilization of biomass, experts, consultants, NGOs, etc.</p> <p>3. reducing corporate taxes for companies, producing fuels from wood biomass and companies, offering environmental and efficient technologies for the utilization of biofuels;</p> <p>4. creating simple and clear administrative procedures for investment in the production of biomass fuels, technologies, and equipment for biomass utilization. Prioritizing the use of biomass as RES energy. Developing policies and strategies for implementation in short and long-trem.</p>	
7. Interstroi-Kaleto Ltd.	<p>Hydropower plant ‘Interstroi-Kaleto’ – 3.6MW, put into service on 23.02.2010 at river ‘Iskar’. The annual output is 16.600 MW. On the project work 9 people.</p>	<p>1. We have a permit for water use in hydropower ‘Hope’ with a capacity of 4.4.MW at ‘Iskar’ river, above the village ‘Zverino’. A full production plan is prepared. It is expected that the power plant will be built by 2013.</p> <p>2. We have a visa for the production of photovoltaic energy over the place ‘Kaleto’ with the capacity of 2 MW.</p>		<p>We meet all the required environmental standards under ISO 14001, etc. Following the link from energy extraction to energy consumption system, we implement quality systems to provide efficiency of the delivered energy.</p>	No.	<p>Yes, they are part of the corporate strategy and long-term policy. The proof is that we employ workers in 3 residential buildings, despite the economic crisis. Our employees receive coupons for free food and banquets 3 times in the year. We participate in Consortium (association) for the development of the water cycle, consisting of 10 firms.</p>	<p>Recently, there is a more serious attitude and a certain respect towards the environmental effect among the consumers. But, in general, RES supply does not attract the consumers because it increases the electricity price with the additional cost for green energy.</p>	<p>Yes, environmental practice in our policy is planting of 200 trees, after the company engraved 200 poplars.</p>	<p>1.administrative problems which restrict the development of RES projects: documents pass very slowly through the various administrations. For example, 1 month is needed to receive an approval assessment from the Regional Inspectorate for Environment & Water (RIEW).Then, the necessary approval from Basein Directorate also takes 1 month. The problem is that the approvals from both departments must be submitted to the Ministry of Environment and Water (MEW) in shorter period. This fact shows disorder in RES law.</p> <p>2.lack of communication between administrations</p> <p>3.the indicated deadlines are not complied. For example, the Ministry of Agriculture and Forestry does not comply with the terms of land distribution for industrial purposes. On the other hand, a problem for RES producers are the deadlines for reporting of the RES supplies in every 6 months until 15th, set by the Energy Commission. A Green</p>	<p>No, we need to follow only the legal requirements determined in RES law in order to receive a permit for green energy supply. For example, the Ministry of Ecology, RIEW, Hygiene and Epidemiological Inspectorate (HEI), Basin Directorate, Water Supply and Sewerage (WSS) are the main state institutions, monitoring the implementation of legal requirements for issuing green permits, but not demanding the application of social or environmental practices.</p>	<p>We do not cooperate with NGOs organizations, but we participate in the association ‘Union of Producers of Ecological Energy’ (SPEE-BG).</p>				

									Certificated is issued if the deadlines are met. In case, the deadlines are not met, the main electricity distribution company (in this sense CEZ) refuses to issue a green certificate. This means that the company does not receive an environmental allowance for green energy supply.						
8. Solarpro Ltd.	<p>I. (in 2008) Photovoltaic (PV) plant - 3.6 kW at Silistra town, Silistra area;</p> <p>2. (in 2010) PV plant – 103kW at Razlog, Blagoevgrad area;</p> <p>3. (in 2010) PV plant – 148kW at village Kubadin, Burgas area;</p> <p>4. (in 2010) PV plant – 2.4MW at village Yankovo, Shumen area;</p> <p>5.(in 2010) PV plant – 3.9MW at Kalipetrovo, Silistra area;</p> <p>6. (in 2011) PV plant – 75.6kW at village Karanovo, Sliven area;</p> <p>7. (in 2011) PV plant – 1MW at village Vladislav, Veliko Tarnovo area;</p> <p>8. (in 2011) PV plant – 2.4MW at Malko Tarnovo, Burgas area;</p> <p>9. (in 2011) PV plant – 4.8MW at Devnya, Varna area;</p> <p>10. (in 2011) PV plant – 5MW at Ravna gora, Varna area.</p>	<p>II. 1. PV plant – 4.8MW at Devnya, Varna area;</p> <p>2. Three PV plants – each with 4.9MW at village Kaolinovo, Shumen area;</p> <p>3. PV plant – 4.1MW at Kardjali, Kardjali area;</p> <p>4. PV plant – 240kW at village Kalekovets, Plovdiv area;</p> <p>5. PV plant – 3MW at village Trud, Plovdiv area;</p> <p>6. PV plant – 4.9MW at village Razlog, Blagoevgrad area;</p> <p>7. PV plant – 15.5MW at village Razlog, Blagoevgrad area.</p>	III.	IV. We apply quality management systems: ISO 9001. Our photovoltaic modules are tested and certified under a German system for quality.	V. We follow all the legal requirements for RES supply.	VI. The respondent stated that the social and environmental activities are part of corporate management strategy. We are the first Bulgarian company that manufactures solar panels. With the promotion of RES supply we aim to improve the security of supplies, to increase the quality of life, and reduce GHG emissions singificantly in Bulgaria by increasing the energy independence of households. Thus, recently we reoriented our strategy from installation of big solar panels to small and medium installations for households. The respondent added that corporate policy requires Solarpro constructions should not destroy the agricultural lands and environmentally-protected areas.	VII. Yes, after the installation of our large projects in Kaliperovo, Silistra, Devnya, Malko Tarnovo increased the interest of ordinary citizens for RES installations in households. The main reasons are the constantly rising fuel prices & the lower energy price of the crystalline photovoltaic technology.	VIII. Yes, since 2012 we use highly efficient polycrystalline solar modules. The Bulgarian Investment Agency gave level A certificate to two of our projects for first class investors in large capacities and high- technological incorporation in the field of RES supply. This contributed to:	IX. 1. legal issues – recently we had problems with the directives of the new RES law. SEWRC announced a very low purchase price for electricity from solar installations above 1 MW. Our factory in Silistra used to produce thin photovoltaics for solar parks which were profitable till the beginning of 2011. With the new RES law, Solarpro had significant losses in sales. That was the reason to restructure the production from thin photovoltaics to crystalline solar panels for rooftop installations with 220 -245kW capacities. Further, we had to reduce the employees in production sector with around 150 workers and increase the employees in the design and construction of crystalline photovoltaic modules.	X. To some extent, yes. The construction of large photovoltaic panels was profitable for the corporation. Moreover, our projects attracted smaller consumers which became interested in rooftop installations. The decision t restructure the corporate activities from large to smaller RES projects has increased the spread of our installations because the smaller projects have a light regime for connection to the electricity grid. Now, we have more opportunities for implementing our projects abroad. Recently, we could establish a subsidiary in Macedonia where we are working under a photovoltaic project.	XI. Yes, we cooperate to provide training for engineers and equipment of special laboratories with the technical universities in Varna, Gabrovo, and in Ruse. Currently, we are working under the development of a laboratory in Ruse. We are cooperating with the Japanese company BYD to produce the efficient polycrystalline photovoltaic panels. Further, we cooperate with the local municipality of Silistra, the government, media, international partners from Macedonia, Hungary, Holland, such as Infinity Energy Holding, to spread the supply of PV energy. The company is a co-founder of the Bulgarian Photovoltaic Association (BPVA) and a member of the European Photovoltaic Industry Association (EPIA).	XII. Yes.	XIII. They need to cooperate more to create effective legislation and good climate for investments in Bulgaria.	XIV. They need to cooperate and promote the implementation of the new RES law. Further, the government should provide to investors secure tariffs for purchasing the green energy at the time of accession to the grid.	XV.
9. Eurodesign BG Ltd.	<p>1. Photovoltaic roof installations</p> <p>2. Photovoltaic installations on land, etc.</p> <p>3. Autonomous photovoltaic systems</p> <p>4. Power backup of installations</p> <p>This is the field of work that we are dealing with.</p>	<p>1. Photovoltaic roof installations</p> <p>2. Photovoltaic installations on land, etc.</p> <p>3. Autonomous photovoltaic systems</p> <p>4. Power backup of installations</p>					Yes.	Yes. The construction of a photovoltaic system for example.	Yes. Administrative, legislative, financial.		Yes, with the media. We have designed, delivered, and installed a photovoltaic system for the needs of students from the department of ‘Power Electronics’ at Technical University in Sofia.				

NGOs	I. Implemented RES projects	II. RES projects under implementation	III. Understanding of CSR	IV. International Obligations or Guidelines for CSR	V. Externally Reporting or Promotion of CSR practices	VI. CSR as a part of corporate policy	VII. Do users ask for CSR when projects are implemented?	VIII. Do you implement CSR practices?	IX. Barriers in RES projects	X. Does CSR help to overcome the barriers?	XI. Cooperation with media, municipalities, & NGOs for CSR development.	XII. Knowledge on CSR development in Bulgaria.	XIII. Relations between business, authorities, & NGOs in Bulgaria.	XIV. Suggestions to the Bulgarian business, authorities, & NGOs for further development.	XV. Suggestions for the following up research.
1. NGO Za Zemiata	Our RES projects are for the period of 10 years under the global initiative 'Energy Brigade'. We have set solar collectors of hot water to over 50 sites, kindergartens, orphanages, homes for orphans, schools. Our RES activities are for educational purposes in the form of workshops.	Since several years, we are working more on a political level, not over the implementation of practical projects. We think that the green business in Bulgaria is developed and we suggest that the green business should develop RES projects.		IV. Yes.	V. We often have similar activities within our work with international partners and networks.	VI. Yes.	VII. Yes.	VIII. This is the mission of our organization. We promote the implementation of EE measures in schools and kindergartens.	IX. We have no barriers, because our activities are charitable gifts, such as free-collectors on schools, dormitories, etc. Our activities are not prevented, but there is mistrust. On the other hand, there is a common misunderstanding of CSR at the meetings with businesses.	X. Yes, of course, this is important part of the mission of our organization.	XI. Yes, we have very good cooperation with media and frequent press conferences. Municipalities are our main partners for local projects, while schools are our partners for the educational projects.	XII. Yes, CSR strategies have the largest international banks and firms in Bulgaria.	XIII. Unfortunately, in Bulgarian context it is considered to be normal situation that business interests oppose the governmental interest. The national economic insecurity makes businesses to look for quick profits and invest in short-term profits. In this sense, businesses accept NGOs as a barrier. On the other hand, NGOs mistrust businesses, because they destroy the nature and seek mainly profit.	XIV. 1. The government should simplify the procedures for RES projects and provide financial support for RES constructions on individual households. 2. To establish clear conditions for the development of RES supply by limiting the frequent changes in the RES law. 3. To create map with indications for RES potential and protected areas from Natura 2000. 4. The government and the local authorities should actively use public procurement to stimulate RES supply and EE. 5. The business need to participate more actively in the creation of new RES laws and regulations. 6. The business should stop considering nature as unlimited resource and should prioritize energy efficiency. 7. The business should create highly qualified experts for the development of low carbon economy. 8. the business should carefully examine the potential of RES supply in Bulgaria in order not to reach saturation and losses for investors.	XV. For Bulgaria, it would be interesting to be examined the progress on energy efficiency which is a huge problem.
2. SOFENA	I. The projects of our agency promote all kinds of RES energy and EE technologies in buildings, industrial systems, and in households.	II. Currently, we are working on projects for the development of policies and planning at local level, campaigns for EE in households, and housing typology in terms of EE.	III. CSR is part of our organizational mission for carrying out socially useful activities. SOFENA actively cooperate with relevant organizations, joins networks and associations to promote sustainable energy development. In this sense, our organization assists communities, businesses, and households to implement RES supply. Finally, SOFENA cooperates with universities, trains apprentices, supports projects, and promotes EE in schools.	IV. We have internal code for our activities, concerning our social and environmental responsibilities.	V. Within the projects, we prepare manuals and reports in this regard.	VI. Yes, they are part of the organizational policy and mission.	VII. We work with very diverse target groups. Municipalities are generally interested in the social benefits as well as in the environmental impact on the municipal territory. For businesses, this is something new and not popular enough.	VIII. We apply behavioral measures to implement energy saving in our office and in our homes, related to mobility (use of public transport, bicycles), rational use of energy (shut-down computers when not in use, optimizing lighting, and rational use of equipment), etc.	IX. The difficulties are mainly related to the innovative nature of our business. People must be persuaded that the use of pellets is more efficient than diesel, as well as solar thermal collectors are a good solution for energy supply in hotels, kindergartens, and other public buildings. An important part of our role is to help businesses and users to overcome the barriers for the spread of RES, such as: financial, legal, and others.	X. Our continuous work in this direction has given positive results, but much more outcomes are expected to be achieved.	XI. Yes, SOFENA is a member of national, international networks, and implements projects in this direction.	XII. I have not conduct a research in this direction. I have participated in a project evaluation on clean production and CSR in tourism sector. The results showed that none of the hotels has implemented CSR strategy. Some communication companies have a policy for financing small projects of NGOs and they declare actions in this direction. The colleagues from Denkstatt have a project in this direction, the link is: http://www.denkstatt.bg/references.aspx	XIII. 1.In regard to the new requirements for energy efficiency, activation among the governmental bodies (Agency of Energy Efficiency, State Energy and Water Regulation Commission) is observed. Agreements for cooperation are contracted. Businesses are involved in legal discussions and in the development of bills. 2. In regard to the protection of interests, businesses have created associations for RES suppliers, companies for EE, and other organizations which are NGOs as well. 3. On governmental	XIV. The development of RES projects should be done in environmentally-friendly way (including conservation of biodiversity, etc.) in order to provide additional value to society.	XV. The study of CSR activities should continue in the form of social audit and monitoring of companies, projects in the field of RES energy and EE.

													level, NGOs participate in working groups, conduct cooperation agreements, Our NGO could obtain letters of support for our projects. 4. Our work with local authorities is also good and productive in terms of the legal requirements in municipalities, and the implementation of voluntary initiatives, such as Mobility Week, Covenant of Mayors, etc.		
3. TIME foundation	I. Our projects look at the big picture because they deal with environmental management. In this sense, we enhance not only RES supply but environmental issues in a broader sense. We work with schools & SMEs. RES supply is part of each project in one or in another way. We have implemented 7 projects so far.	II. Our activities include conducting international, regional campaigns for the spread of information and know-how on sustainable development. We provide: 1. education on environment and sustainable development. 2. research, analysis, and policy development. 3. organizing training 4. establish mechanisms for partnership and networking 5. support community initiatives, based on sustainable use of natural resources; 6. support funding of eco-sound development among authorities, NGOs , and businesses.	III. CSR is profitable if it is implemented strategically. Otherwise, CSR is perceived as a ‘greenwashing’.	IV. Yes, we are the first organization that received EMAS registration .	V. We develop EMAS system and provide annual report for our activities.	VI. Yes, they are part of our activities and policies.	VII. Yes.	VIII. Yes, we develop good practices in our office, such as: switching off appliances, saving water, purchasing green products, insulating our windows, ride bicycles, etc. Also, we offset our carbon footprint by planting trees and developing other activities.	IX. Financial, because funds are needed for the developing of our activities.	X. Not really.	XI. Yes, they are our target group.	XII. Yes, but the development of CSR is not strategic, profitable. It is perceived as a ‘greenwashing’.	XIII. The development of relations among these stakeholders is crucial.	XIV. According to the respondent, institutions, organizations, and businesses should cooperate to follow their original objective, not only to make profit and steal.	XV. The suggestion to this research is that the author should be more specific when talking about CSR, because the issue is too broad and there is too much potential for abuse.

Business organizations	I. Implemented RES projects	II. RES projects under implementat ion	III. Understand ing of CSR	IV. International Obligations or Guidelines for CSR	V. Externally Reporting or Promotion of CSR practices	VI. CSR as a part of corporate policy	VII. Do users ask for CSR when project s are imple mented ?	VIII. Do you implement CSR practices?	IX. Barriers in RES projects	X. Does CSR help to overco me the barriers ?	XI. Cooperation with media, municipalities, & NGOs for CSR development.	XII. Knowledge on CSR development in Bulgaria.	XIII. Relations between business, authorities, & NGOs in Bulgaria.	XIV. Suggestions to the Bulgarian business, authorities, & NGOs for further development.	XV. Suggestions for the following up research.
1.Bulgarian Forum of Business Leaders (BFBL)	I. We do not have.	II. We do not have.	III.	IV. No.	V. Our activity is to support companies in developing CSR strategies.	VI. Yes, CSR is part of our policy.	VII. Yes, the users are interest ed in CSR.	VIII. We enhance the organization of a Charity Ball. The collected funds are donated for free examinations of breast cancer and in vitro procedures to couples, deprived of state funding.	IX. 1.financial and logistical problems 2.administrative problems	X. No.	XI. Yes, we cooperate with all members of the UN Global Compact, BCAF, Bulgarian Donors Forum, etc.	XII. Yes, almost all of our members have active projects.	XIII. Businesses often contact with NGOs to develop and support CSR projects.	XIV. CSR should become part of the governmental policy. This is the way to influence on consumers' culture and on the society as a whole.	XV. The future researches should serve to promote a better understanding of CSR by presenting it as integrated into the overall business policy and a way of doing business today.
2. Bulgarian Environmental Partnership Foundation (BEPF)	I. BEPF is an organization, mobilizing resources in support of other NGOs, working on sustainable development. The funding is enhanced with the participation of citizens & civic structures. We fund projects, related to energy efficiency, & renewables, climate change. Further, we finance demonstrational projects of local NGOs, such as: activities for the spread of RES usage, information & educational campaigns on energy efficiency, climate change, etc. We have participated in	II. Currently, we expect approval of our educational programme about EE among students. The aim is to implement EE measures in small schools.	III.	IV. The mission of our organization is to develop such responsibilities in business structures.	V. Our work with public structures, NPO, & business partners is aimed at provoking development/p romotion of CSR activities. We do not prepare a special report on this topic.	VI. Yes, CSR is part of our policy. It can be perceived from the activities of our organization that we have indicated.	VII. Regarding the public & the NGOs target groups , I would say yes. People are interest ed & they help for the develo pment of CSR activiti es.	VIII. In addition to our projects & programmes, we are implementing CSR practices in our office. We practice recycling. In terms of heating, we use efficient air-conditioners and a recent isolation to improve the temperature & reduce emissions. We aim to use public transport (train/bus) in 75% of our business traveling.	IX. We find limitations in the availability of open application programmes & adequate funding of specific activities. The reasons can be in the nature of the programmes to finance municipalities & business, rather than NGOs, or because of the non-transparent procedures of the selection of funded organizations.	X. No answer.	XI. Yes, regarding all our activities, we work closely with media representatives. Moreover, we are partnering with businesses and municipalities, regarding the theme of our activity & the opportunity for meaningful and necessary cooperation.	XII. Yes, there are many business organizations, applying CSR policies. I guess they develop strategies as well.	XIII. These relations are developed. The problem is that sometimes non-environment ally-friendly decisions have been taken and RES projects, inconsistent with the principles of nature conservation , have been approved. In this case, different interests and relations among businesses & institutions are framed which are expected to ensure protection of nature. In	XIV. Policies should be transparent and effective, based on communication and cooperation. The governmental decision-making should take the best decisions for the development of environment and society by considering the interests of different stakeholders.	XV. I think this research examines mainly the business development. If this research wanted to examine NGOs interests, it should have included other issues and aspects for analysis. In regard to future researches in business development, I would make more emphasis on issues, exploring and promoting business interactions with NGOs in order to increase the awareness and use of energy efficiency and RES solutions in households or in public life, as well as exploring the participation of policy development.

	public information days to increase the public knowledge on benefits of sustainable transport, RES solutions in the households, etc.												this case, NGOs take the controlling role and oppose decisions against nature.		
3. ESD (Energy for Sustainable Development)	<p>I. The last implemented projects are from 2009, such as:</p> <p>1. Preparation of Energy passport of a residential building (concerns EE);</p> <p>2. Preparation of energy passport of a trade building (concerns EE);</p> <p>3. Development of a computer model for RES potential assessment (concerns RES sector).</p> <p>Totally, the organization has completed around 103 projects which can be found at: http://www.esdb.bg/projects.pl?l=1&t=1&a=1&n=1</p>	<p>II. Currently, we do not have projects. Everything has been stopped.</p>	<p>III. Our understanding to CSR is positive because CSR is part of our policy.</p>	<p>IV. Yes, we develop policy of 'zero carbon emission'.</p>	<p>V. Yes, but the interest of the Bulgarian administration to such reports is mainly on paper.</p>	<p>VI. Yes.</p>	<p>VII. Large part of them are interested only if they are required to follow environmental & social obligations.</p>	<p>VIII. We develop projects in the field of emission trading, RES, and EE at national and international level. Respectively, the answer is yes.</p>	<p>IX. We are a consultancy firm. Our barriers are those of our clients. A major barrier in the field of RES is the political uncertainty – frequent changes in the legislation.</p>	<p>X. No, unfortunately.</p>	<p>XI. We work for many municipalities at national and international level. We find almost no understanding of the issues that we propose for discussion at local (municipal level). With very few exceptions, the municipal officials lack the required capacity, while the majors and their advisors have 'other' plans. We enhance education and training in the field of RES, EE, energy policies, and energy planning.</p>	<p>XII. Our consultancy firm has CSR strategy because we are part of the global company CAMCO. For other companies or organizations I have not heard.</p>	<p>XIII. In this case the term 'business' is very general. There is a tendency for convergence of view, intentions, and actions of business, authorities, and NGOs. The problem is that the Bulgarian business is still far from normal relationships. Especially, the relationships between SMEs and institutions are very limited.</p>	<p>XIV. Suggestions:</p> <p>1. To the public institutions:</p> <p>1.1. Amendments in RES law should be implemented to stimulate RES supply. 1.2. Wide campaigns should promote RES benefits. 1.3. The lobbying of gas, fossil fuels, and nuclear supply should be limited because it diminishes the importance of RES development in Bulgaria. 1.4. Municipal, regional, and national database should be established for the capacity of different RES sources. 1.5. The capacity of state administration in the field of RES should be increased. Currently, it lags dangerously and prevents the development of RES sector.</p> <p>2. to the local authorities (municipal and regional administrations):</p> <p>2.1. The capacity of staff in the field of RES need to be increased; 2.2. The local authorities should comply with the requirements of RES law as well as developing energy action plants at municipal level. To this end, creation of municipal database for RES capacity is necessary; 2.3. security and consistency of governmental policy should be achieved.</p> <p>3. to the businesses</p> <p>3.1. investors: they should focus their attention to technologies for heat production from biomass & geothermal energy; 3.2. the users should implement RES technologies, because it secures predictable and constant energy cost in time.</p>	<p>XV. For the last 15 years, RES projects were funded by various donors but the realized projects are not evident to the public. The future researches should examine RES capacities and create a national database of RES development.</p>
4. BPVA	<p>I. Photovoltaics and informational campaigns, such as:</p> <p>1. PV Legal – international project, funded by the EU Commission;</p> <p>2. Programme 10 000 solar roofs;</p> <p>3. PUC - participation in urban climate protection;</p> <p>4. participation in Heinrich-Boell project.</p>	<p>II. We deal only with photovoltaic energy.</p>	<p>III.</p>	<p>IV. We have no commercial business.</p>	<p>V. We have no commercial business.</p>	<p>VI. Yes, we enhance RES supply.</p>	<p>VII. n/a</p>	<p>VIII. Yes.</p> <p>1. We recycle the waste of our office.</p> <p>2. We use online-based systems (accounting, financial, etc.) instead of conventional in order to reduce paper consumption.</p> <p>3. We use recycled paper for administrative work and for the printed editions of the association.</p>	<p>IX. Our projects are mainly for informational purposes. We have no business activity.</p>	<p>X. n/a</p>	<p>XI. Yes, we use media and network of contacts to spread information about sustainable sources of energy (photovoltaics), opportunities for reducing GHG emissions, and practices against climate change.</p> <p>We cooperate with several environmental NGOs, such as: WWF-Bulgaria, Climate Coalition, etc.</p>	<p>XII. Yes.</p>	<p>XIII.</p>	<p>XIV.</p>	<p>XV.</p>
5. BGWEA	<p>I. n/a</p>	<p>II. n/a</p>	<p>III. The respondent perceives CSR as</p>	<p>IV. One of the main objectives of BGWEA is the promotion</p>	<p>V. The respondent gave an answer not</p>	<p>VI. Yes, BGWEA aims to increase the</p>	<p>VII. n/a</p>	<p>VIII. Yes. The examples are: spreading of informational</p>	<p>IX. n/a</p>	<p>X. n/a</p>	<p>XI. Yes, recently we organized a trip with media representatives</p>	<p>XII. n/a</p>	<p>XIII. The cooperation among business,</p>	<p>XIV. The development of RES supply needs more clearly</p>	<p>XV. n/a</p>

			the mission of the organization to be a constructive partner to all stakeholders in the wind energy sector (the government, legal experts, NGOs, industrial experts, and mainly to the community) in order to enhance sustainable wind supply.	of RES sources and the creation of enabling environment for sustainable development. In this sense, the entire business of the organization is characterized by economic, social, and environmental activities, according to the respondent.	related to CSR management but to the activities & aims of BGWEA. It was stated that BGWEA participates in public discussions of the regulatory framework, in seminars for RES, and support researches in the field of RES in order to promote RES supply.	public awareness about the social and environmental benefits of RES supply by supporting informational campaigns, presentations, exhibitions about RES.		materials; organizing exhibitions and other events in order to increase the public awareness about RES benefits. The respondent added that BGWEA sets example for a responsible business behavior, such as: limiting the costs for energy usages, office expenses, and using bicycle couriers.			to a wind park. This initiative included discussions about the economic, social, and environmental benefits of wind energy usage.		institutions, and NGOs leads to useful exchange of experience and inclusion of stakeholder interests in governmental decisions.	expressed political will, intensified work on improving the legal framework of RES sector, efforts for raising the public awareness about the RES benefits.	
6. APEE - Varna	I. The main activities of our organization do not include project development. Established in 2004, the APEE – Varna gathers corporate members to cooperate for the development of RES energy in Bulgaria. Our main activities are: 1. conducting research, promotion, and protection of economic and social interests of corporate members and increased RES supply ; 2. qualified legal protection of our members 3.collect, summarize, and provide proposals to existing legislation; 4. establish cooperation among APEE members , governments, NGOs for the development of RES supply. 5. promotion of the activities of our members through media, press, and general public.	II. The projects under development are from RES sources, such as: water, wind, solar, biomass, and biogas.	III. The respondent relates CSR to mission of the association for: 1. intelligent management of resources; 2. understanding of the benefits for individuals and the national market of using RES supply; 3. switching from conventional to alternative power generation .	IV. Yes	V. Yes	VI. Yes	VII. No	VIII. Yes, such as: 1. using recycled paper; 2. recycling our waste; 3. develop a project to supply our office building with RES sources.	IX. We meet administrative and political barriers.	X. No.	XI. Yes, we develop the so called 'awareness campaigns'. Further, APEE is a member of the European Wind Energy Association. We participate in the working groups of the Ministry of Economy and Energy. We cooperate with the Bulgarian Society for Protection of Birds and other environmental organizations in order to preserve and protect the environment, biodiversity, and sustainable development. Also, the association has established a partnership network of entrepreneurs, banks, manufacturers of RES equipment, designers of power systems, etc.	XII. No.			
7. APEE - Blagoevgrad	I. The CSR initiatives that we developed are related to the World days. For example, on the 3 rd of May (the day of the sun) representatives of our organization organized lectures, about the environmental protection and the advantages of using green energy, to educate children. Another initiative that we developed is restocking of rivers.	II. 1.Currently, our association implements the project with soft measures 'Cross-Border Cooperation in the Field of RES and EE' under the programme for Territorial Cooperation between Bulgaria and Macedonia. Moreover, the power plants of our members could achieve a total capacity of 500MW. 2. Further, APEE-BG candidates with an investment project for the construction of a green school where children can observe working mini	III. CSR directly affects the activity of APEE-BG because the nature of the association is to increase the stakeholders' awareness about CSR. In fact, SPEE-BG is an association with socially useful activity and our understanding of CSR is reflected in all our initiatives and projects. Our policy and initiatives provoked the members of the association to adopt elements of CSR.	IV. According to the respondent, the objective of the organization is to enhance the implementation of social and environmental activities, in particular – economic as well. By participating in the association, more than 40 manufacturers of green energy succeed to carry out CSR practices, such as: meetings with citizens, providing information and advice in the field of RES to stakeholders, promotion of green practices, promotion of practices for energy efficiency by providing expert advice, initiatives on environmental protection and sustainable development, raising children and youth behavior to save energy and to be responsible of their	V. n/a	VI. Yes.	VII. Yes.	VIII. Yes, such as: 1. usage of recycled paper whenever it is possible; 2. compliance with the requirements for energy saving. We have installed large windows on two of the four walls in the office which can provide natural light throughout the day. There is no need to use electricity for lighting; 3. We have put energy-saving light bulbs where artificial light is needed; 4. We always turn off the office equipment at the end of the workday.	IX. We face problems with the accession to the electricity grid because of its limited capacity. Another problem is that the new RES law sets rather high connection fees for connection to the grid of capacities below 5MW. For such installations the connection fee is 25 000BGN per MW. The fee for installations above 5MW is very high as well, calculated at 50 000 per MW. Moreover, the administrative procedures are slow.	X. No.	XI. Yes. 1. We use the media to promote our upcoming events in order to ensure maximum attendance of stakeholders; 2.Many of our initiatives are implemented in partnership with municipalities and other organizations.	XII. No.	XIII. The businesses, institutions, and NGOs develop cooperative relations.	XIV. Our suggestions are: 1. active usage of the European funding programmes; 2. promotion of performed/planned activities among stakeholders; 3. the government should make efforts to provide security for the investors by developing sustainable, long-term policy of RES sector. In this way the investors can rely on successful implementation of their business plans. 4. adequate attitude towards changes in RES law; cooperation for the spread of information about RES benefits; monitoring developments in RES law, regulations, new solutions to ensure timely actions for adaptation; 5. companies, NGOs, and	XV. A comparative analysis of RES law, the procedures for building new power plants, and the energy prices among the European and other countries should be developed to indicate how RES is promoted. Such analyses will introduce best practices to facilitate the construction of power plants and encourage the use of RES in Bulgaria.

		<p>versions of photovoltaic , hydro, wind power plants, and a weather station.</p> <p>Also, it is planned that a training center for ecology will be developed in the green school.</p> <p>3. At the beginning of the next year, the association will organize an essay contest on a topic, related to RES development .</p> <p>4. We plan to provide students with the opportunity to visit renewable hydroelectric and photovoltaic plants of members of the association for learning purposes. During this visit, an educational lecture will be provided to the students by the honorary member of the association – Mr. Stoev. He is an associate professor of photovoltaic s.</p>		<p>activities towards the environment. On the other hand, CSR occurs in the active interaction among the members of the association as well as in their cooperation with governmental institutions and other relevant organizations. In this case, the role of CSR is to secure protection of the interests of green energy producers which indirectly affects positively the environment and people's lives.</p>										<p>institutions should cooperate to manage the risks and credit programmes of RES sector.</p>	
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