



CENTER FOR
THE STUDY OF
DEMOCRACY

ENERGY STRATEGY OF BULGARIA 2020: A BETTER GOVERNANCE PERSPECTIVE

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Energy is a key sector for Bulgarian economy, both because of its size and because of its importance to national competitiveness. This requires decisions to be made on the basis of reliable and accessible data, broad based discussions and clearly identified strategic priorities, which rely on established practices and mechanisms for good governance. The latest strategic document at national level is the Bulgarian Energy Strategy from 2002. Without updating it, the Bulgarian government has committed in the years following its EU accession to substantial investments with long-term impact on the energy sector, which is a vivid example of failure in good governance. Bulgaria's membership in the European Union (EU), climate change negotiations, the financial and economic crisis and Bulgaria's inclusion in several international investment projects have changed the conditions for the development of Bulgaria's energy sector. These latest developments require updating of the national energy strategy and providing for better and transparent governance in the sector.

MAIN FINDINGS

To achieve transparent and effective governance in the energy sector there need to be:

- Coordination between institutions and relevant strategic documents;
- Clear, transparent and justified rights and obligations of the state institutions involved;
- Use of long-term independent forecasts and scenarios, which are based on recent and reliable data.

The strategy should:

- Frame both national targets for development and the process of decision making itself ;
- Include a system of indicators for successful implementation, as well as mechanisms for revision of the strategy;
- Outline the main priorities and instruments for achieving the stated objectives.

There is currently a window of opportunity for updating the energy strategy, so that it can be used as a framework for the preparation of a number of strategic and working documents, which are required not only by EU directives, but also by the ongoing efforts for better and more transparent governance of the sector. In the first part of the current analysis we have considered international best governance practices in the energy sector as well as in the preparation of strategic documents. The second part will directly comment on the existing draft strategy (November 2008 version).

Best governance practices in the energy sector and preparation of strategic documents¹

Government structures for coordination and management of energy related policies

I. Coordination among institutions and relevant strategic documents

The increase of international efforts to combat climate change has built up political and social pressures to set more ambitious climate change goals for developing economies. As a member of the European Union (EU), Bulgaria has signed a set of binding commitments: to reduce greenhouse gas emissions, attain a minimum share of renewable energy sources (RES) and reduce energy intensity. This commitment implies that energy development policies and environmental policies should be well coordinated and inter-related. In this context, it is necessary that the national energy

strategy outlines a clear vision for the construction of a clearer and more coherent organization and coordination among public authorities and institutions responsible for the formulation and implementation of policies in these two areas.

In many EU member states such as Spain, the Netherlands and Italy better coordination is achieved through purposefully created 'inter-agency' bodies, which facilitate synergies and synchronization among many relevant institutions in the realm of climate change: environment, energy, industry, housing, agriculture, technology development, local government and forestry. This is a logical step, because sustainable development and efficient energy management have relation to many sectors and levels of governance. Only through coordinated action and well functioning system for checks and balances, it is possible to achieve the high objectives that the country has set for itself. At the same time, based on past experience and assessment of the effectiveness of Bulgarian administration, when designing such new structure, there is a risk to achieve the opposite effect: delay of decision making, increase in administrative barriers and corruption risk, as well as political and economic pressure from interest groups. To avoid these risks, the coordination mechanisms need to be clearly outlined in the strategy within the existing institutional structure.

II. Clear and transparent rights and obligations of state institutions related to energy sector development (see Annex 1)

An initial review of the activities and responsibilities of the institutions, which are most directly related to the energy

¹ Based on: Lessons Learned from the Energy Policies of IEA Countries: Key Cross-Cutting Issues 2007/2009. IEA; analysis of the Center for the Study of Democracy

sector development, shows that several steps can be taken to improve the structure of sector's governance. **Currently the sector's governance is shared among various ministries, agencies, departments and state companies, whose responsibilities often overlap giving rise to conflicting interests.** The national energy strategy should provide a clear structure of governance responsibilities for the different institutions and should create mechanisms for good interaction among them, such as:

- The sharing of responsibilities regarding climate change policies between the **Ministry of Economy, Energy and Tourism (MEET)** and the **Ministry of Environment and Water (MEW)**. At what level and in what form should the coordination of activities of the two ministries be managed?
- The role of the various hierarchical levels of management in the state controlled energy sector - ministries, holding companies, enterprises. The functions of MEET need to be distinguished from those of the **Bulgarian Energy Holding (BEH)** and the different state companies within the holding. The decision to include the electricity and gas operators within BEH needs to be substantiated. The National Electric Company (which is part of BEH) is in effect also a holding company, which raises the same issue of functions duplication with those of BEH.
- Framing and coordinating the control functions of MEET and BEH on one side over state enterprises in the sector and the **Ministry of Finance (MF)** on the other side. Although billions from the budget are spent on energy projects, there is confusion about: who and how is responsible for investment decision

making, who collects and stores financial information for the entire sector, how is good governance of state enterprises managed to ensure better financial performance. MF has an obligation to collect the quarterly financial reports of state enterprises with more than 50% state equity². Such enterprises are: Bulgargaz, NEC, Maritsa - Iztok (Radnevo), Nuclear Power Plant Kozlodui, Thermo Power Plants (TPPs), State Enterprise "Radioactive Waste", EVN Electricity Distribution, CEZ Electricity Distribution, Petrol, Tolofikacia Sofia, etc. Although these reports are collected, there is no public information or critical analysis of the companies' performance.

- Removing the foundations for conflicts between the goals of different energy sector policies. The **Energy Efficiency Agency**, within the Ministry of Economy, Energy and Tourism, supports energy efficiency in final consumption, which is contrary to the interests of electricity producers, which are protected by other agencies at the same level in the structure of the MEET. This conflict of interests is probably the reason why the agency is not involved in the promotion of such core issue as the efficiency of energy producers.

- Rethinking the role of the **National Assembly** in strategic decision making in the sector – which decisions should be necessarily adopted by the Parliament. The result of this fragmentation of governance functions in the whole system creates opportunities for **dilution of the rights and responsibilities and also an inability to have checks and balances as well as civil society control** over agencies, departments and enterprises. There is lack of transparency and publicity of the actual

² Ordinance No 87 of May 7, 2008.

activities and progress in achieving the stated goals, which threatens the success of strategic planning. A further problem, on many levels in the energy governance, is the objectivity of management selection and the related issue of its limited **terms of office**.

Use of independent long-term forecasts and scenarios, based on recent and reliable data

I. The Energy Strategy, the Strategy for Sustainable Development and many other related strategic documents must be preceded by the drafting and adoption of independent long-term forecasts and scenarios. These scenarios and forecasts should be regularly reviewed (every 2 – 3 years), and the results should be reflected in the related strategic and working documents. Contrary to established best practice, the draft of Bulgaria's Energy Strategy by design preceded the preparation of such forecasts and energy plans. In the draft strategy itself, there is a separate section which lists the future preparation of documents such as: Overall energy balance - 2030; Forecast and development plan for the electrical system; Forecast and development plan for the gas supply, etc. The logic of good governance advises that strategies and action plans be drafted after the construction of a reliable model of the energy system, which predicts the possible scenarios for development. The modeling of supply and demand, that is the basic energy balance, should be the first step in strategic sector governance.

II. Basic principles and good practices in the use of long-term forecasts and scenarios:

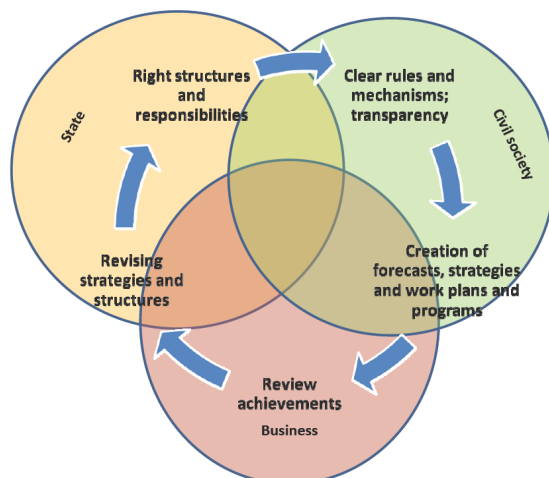
- Long term: most countries use forecast models to 2030.
- Estimates are made for (the list is not exhaustive):
 - Supply - demand balance;
 - Change in the energy intensity of production;
 - Cost of reducing intensity;
 - Emissions of harmful greenhouse gases;
 - Cost of achieving the targets for reducing emissions;
 - Actual share of renewable energy sources (RES);
 - International emissions trading;
 - International electricity trading.
- These forecasts are often drawn by the respective **ministries of energy and economy, but sometimes include departments of the environmental ministries**. In some cases, the forecasts are prepared by independent national agencies. Scandinavian countries have also used international benchmarks.
- Most forecasts include between **3 and 5 scenarios or sensitivity analyses** that show the impact of different assumptions, for example: GDP, price of electricity, different energy policies, prices and restrictions on greenhouse gases (GHG) and others. Several countries such as the Czech Republic, have outsourced the preparation of special 'cost curves for GHG emission reductions', which predict, what will the social and economic burden of combating climate change be.

➤ When preparing such plans and forecasts the government should consider **their purpose and their audience**. In all cases, this type of forecasting aims to **inform the institutions**, which decide on energy policies, so that the optimal cost – benefit balance is achieved. Often modeling of forecasts and scenarios is designed to support **business decisions** as well as to clarify decision-making for the local community and concerned international institutions.

➤ The most common approach used is that of **assessing the cost and feasibility** of achieving certain goals for environmental protection. The models with longer term projections also pay attention to the **development and wider application of high technologies**.

➤ The forecasts and scenarios should be **formally adopted by the government and revised regularly**, so that to serve as a basis for long-term strategies for energy, environment and sustainable development.

The Energy Strategy frames not only the goals for the sector development but also the process of decision making itself.



The Energy Strategy should be guided by clear and solid analysis, based on independent assessment, and thus set the framework for future design of energy sector legislation in Bulgaria. The strategy should describe and justify the process of decision making in specific strategic investment projects, as well as regarding changes in the existing regulatory framework.

In this context, it is important to **provide the necessary time and resources** for analysis of the current situation and possible scenarios for development of Bulgaria's energy sector.

To ensure the **independence of the strategy** from economic interests, it needs to be drafted with the active participation of independent experts and representatives of civil society. The existing consultative process is insufficient to ensure the necessary involvement of all stakeholders.

To guarantee on one hand broad political support and constructive criticism of the strategy, and on the other hand to increase its binding character, the strategy should be adopted by the National Assembly of Bulgaria. In this manner there will be a gradual transition towards legal changes, which will naturally result from the updated strategy.

Inclusion of a system of indicators for implementation of the strategy and mechanisms for its revision.



The strategy would become effective in reality only when it includes **indicators for impact achieved**. These indicators should:

- Be justified and should assess the right component;
- Be a balance of quantitative and qualitative dimensions;
- Have a deadline for implementation;
- Be related to the rights and obligations of relevant institutions;
- Be related to consequences in case of failure.

The strategy should include **mechanisms for its revision** reflecting changes in the social and economic environment, in which it is executed.

Commentary on the draft of Bulgaria's Energy Strategy 2020:

The existing text of the draft of Bulgaria's Energy Strategy is a good starting point for a discussion. The draft strategy reflects well and is written in line with the

European strategic objectives for 2020 and the main global challenges of the sector: sustainable development, competitiveness and competitive markets, energy security. However, the existing strategy should be revised in order to meet its own goals, namely:

"...solving the medium-term issues of transition to a financially stable and market-oriented energy sector through institutional, regulatory and structural reforms to ensure economically efficient, secure and environmentally-friendly energy supply."

The Energy Strategy and other strategic and working documents:

I. The draft of Bulgaria's Energy Strategy (part 5: Strategic Documents) outlines the **future design of 'energy forecasts and plans' only after the adoption of the strategy itself**. This contradicts best practices – projections for economic development, final consumption, etc., should be independent of the strategy, and should frame its design. It is possible forecasts to be made in parallel and in line with the strategy, but not after it. It is logical, that the implementation plans should be made parallel and after the strategy's conclusion, because they serve to plan practical actions for the achievement of its goals.

II. There are no clear **deadlines set in the text of the draft strategy for the development of these additional documents; neither are there institutions, to be responsible for them**. Thus, it is hard to seek accountability and transparency for the documents' implementation.

III. **No recommendations or mechanisms for transparency** are outlined **for the development of the additional documents**. This is a particularly grave omission in the section 'forecasts and plans', because the respective models can be created with such parameters and assumptions, as to serve certain interests. Particular risk in such models is the exaggeration of final consumption - **projected consumption is artificially increased** to justify the investment plans of state enterprises in new and rehabilitation projects.

IV. There is a provision for intermediate projections in every 5 years. Best practices provide a **revision of the estimates every 2-3 years**.

V. **A separate study for the energy efficiency potential of Bulgaria is not planned in the strategy - both in terms of final consumption and in production**. Such kind of research requires large human and financial investment but is extremely necessary for the preparation of realistic plans because Bulgaria has a huge energy-saving potential.

The strategy as justification for investment plans

The document, although indirectly, **serves as justification for aggressive investment plans**. The part 'development forecasts and expected results 2020 - 2030' shows clear confidence in extensive growth of final consumption, and from there in the necessity to invest in large additional capacities. Because there is no justification of the adopted assumptions for economic development, the experts and the public are deprived of independent assessment. There needs to be a description of clear control mechanisms, which will link the

correct forecasts with the justification of large state investment projects.

The future as a oneway-no-road-crossings scenario

In the part of the document, which describes **projections and expectations, there are no alternative scenarios for development** – the future is seen as securely locked, in the context of a worldwide growing uncertainty, especially in the energy sector. It is necessary to provide at least 3 possible scenarios, **which are based on reliable data and modeling**. There needs to be a **transparent model, which predicts the basic energy balance and the cost of the different policy options and development paths of the energy system**.

Mechanisms for decision making

A major omission in the draft strategy is the lack of a **clear description of the mechanisms, rules and succession in the decision making in projects of strategic and financial importance to the country**. The rules for the preparation of cost-benefit analyses in strategic projects, such as NPP Belene, are not clear. The strategy should describe clearly, what the necessary procedures and mechanisms for making such important decisions are, as these decisions should be the strategy's logical extension. The strategy should not only set the sector's priorities, but it also should describe **the steps and responsibilities in the decision making process**. The strategy should describe the mechanisms for **achieving transparency** in decisions making.

Mechanisms and conditions for revising the strategy

The draft strategy **does not provide conditions and mechanisms for its revision**. The global economic crisis is a good example of conditions, which would require the revisions of short and medium-term plans for the sector.

Time frame

The strategy **does not include a time frame for implementation of the specific strategic decisions**. Thus, the specific steps could be postponed and stretched in time.

Risk assessment and emergency action plans

The strategy should **require the development of risk assessment and emergency action plans**. For example, in 2009 gas crisis, it became clear that the government has no such emergency plans. The difference and conflicts in the public information on available gas stocks provided by different authorities during the crisis created the impression of lack of coordination and chaos.

Packages "Bridging the gaps" and "Realizing the potential"

The packages of strategic decisions, outlined in the strategy, are a good method for grouping and analysis of strategic directions for the sector's development, but they could be improved in the following manner:

I. It is **not clear, which institutions are responsible for achieving the goals**, in what time frame and what are the consequences for the institutions and for the state if they fail to materialize.

II. The package "Realizing the potential" seems to **implicitly give priority to development of large investment projects to increase production** (mainly nuclear and coal), to position BEH as a leader in Central and Eastern Europe, to position Bulgaria as an energy hub in South Eastern Europe, etc., but there is no adequate justification for these decisions.

III. **Many of the indicators are too general and allow for free interpretation**, for example: indicator for "Modernizing the management of the companies integrated into the "Bulgarian Energy Holding" is "Transparency and good management practices".

Indicators for assessing strategic measures:

Availability	•Availability of: laws, programs, methodologies, plans publicly announced measures
Relevance	•Is the measure consistent with the goals set?
Timeframe compliance	•Has the measure been implemented in keeping with the time schedule?
Implementation progress	•Has the measure been carried out to its full scope and content?
Quality	•Has the measure been applied in line with good practices and standards?
Quantitative indicators for outcomes	•Such indicators are: number of trainings, number of trained employees, etc
Effectiveness	•Assessing the cost-effectiveness of the specific measure

Process, mechanisms, data and targets

Currently, the draft strategy pays much attention to the targets and ambitions, but does not focus enough on the **processes and mechanisms, which regulate the sector, or the actual data and models**. There are no clearly described mechanisms for control, decision making and revisions of the strategy itself.

I. In particular, there is **no specified mechanism for decision making for large investment projects** such as

Burgas-Alexandroupolis oil pipeline, Belene NPP and South Stream gas pipeline. There should be well outlined steps and transparency in all major state investment projects in the energy sector: transparent, competent and independent costs-benefit analysis; clear contractual relationship with subcontractors, foreign investors and financing organizations; monitoring of management and costs in the implementation of projects, etc. For example, mechanisms should be designed to prevent bad management practices, similar to those of Belene NPP. In the case of Belene the government has invested public funds and construction has been started, without clearing first the issues regarding the involvement of foreign investors and without structuring well the implementing company. As a result the state risks to undertake enormous damages through delay and failure of the project.

II. The part of the strategy “**Development forecasts and expected results 2020-2030**” is relatively short and is confined to the end of the paper - almost as an illustrative section. Instead, the projections and anticipated changes in the macroeconomic environment should occupy a central position and serve as a justification for the macro and micro objectives set in the strategy.

Problematic in this part of the strategy text are not only the numbers given, but also the assumptions used. The assumptions are not clearly expressed and are not put under discussion. The optimistic graphs seem to be made to fit the aggressive goals set in the strategy. Good example is the graph showing the increase in final energy consumption on one hand, and the increase in new capacities on the other hand,

which do not take stock of efficiency improvements.

How much do alternative energy policies cost and to what extent are they achievable?

There is no reference in the draft strategy of the **social, environmental and financial costs of the different alternative energy policies**. There is no clear analysis of what options are there and why the proposed policies have been chosen. An accurate long-term cost-benefit analysis is needed. If the strategy argues, that Bulgaria strives to be the energy hub of the Balkans, its citizens have the right to know how much would that cost – to them and to the future generations. If Bulgaria builds new nuclear power plants - what will happen with the waste and how much will waste management cost? If 16% RES are added to the grid - what will the real burden on the electricity bills be? If it decommissions outdated TPPs - what will the necessary replacement capacity be and of what kind? When and what capacities will have to be decommissioned and whether it is reasonable to invest in expensive rehabilitation projects? New EU member-states such as the Czech Republic hire leading consulting companies to calculate their cost curve of reducing GHG, i.e. how much will the real cost for the economy be under different prices of CO₂ emissions. This kind of analyses are expensive, but necessary to make the right decision. If the strategy can not solve these complex issues, it can at least **set frames, mechanisms and deadlines for the design and completion of necessary estimates**.

When important strategic decisions are made for the long-term policies in the sector, price is only one of the important factors to be taken into account. There is

internal and external, economic and political pressures to choose a specific model for decision making. **These additional factors should be described in the strategy, as well as the degree of their importance.** For example, if the unemployment in mining areas is an important consideration, this should be clear, rather than hiding the social functions of loss incurring enterprises.

Focus on energy efficiency as a tool to achieve energy security and climate change: final consumption and production

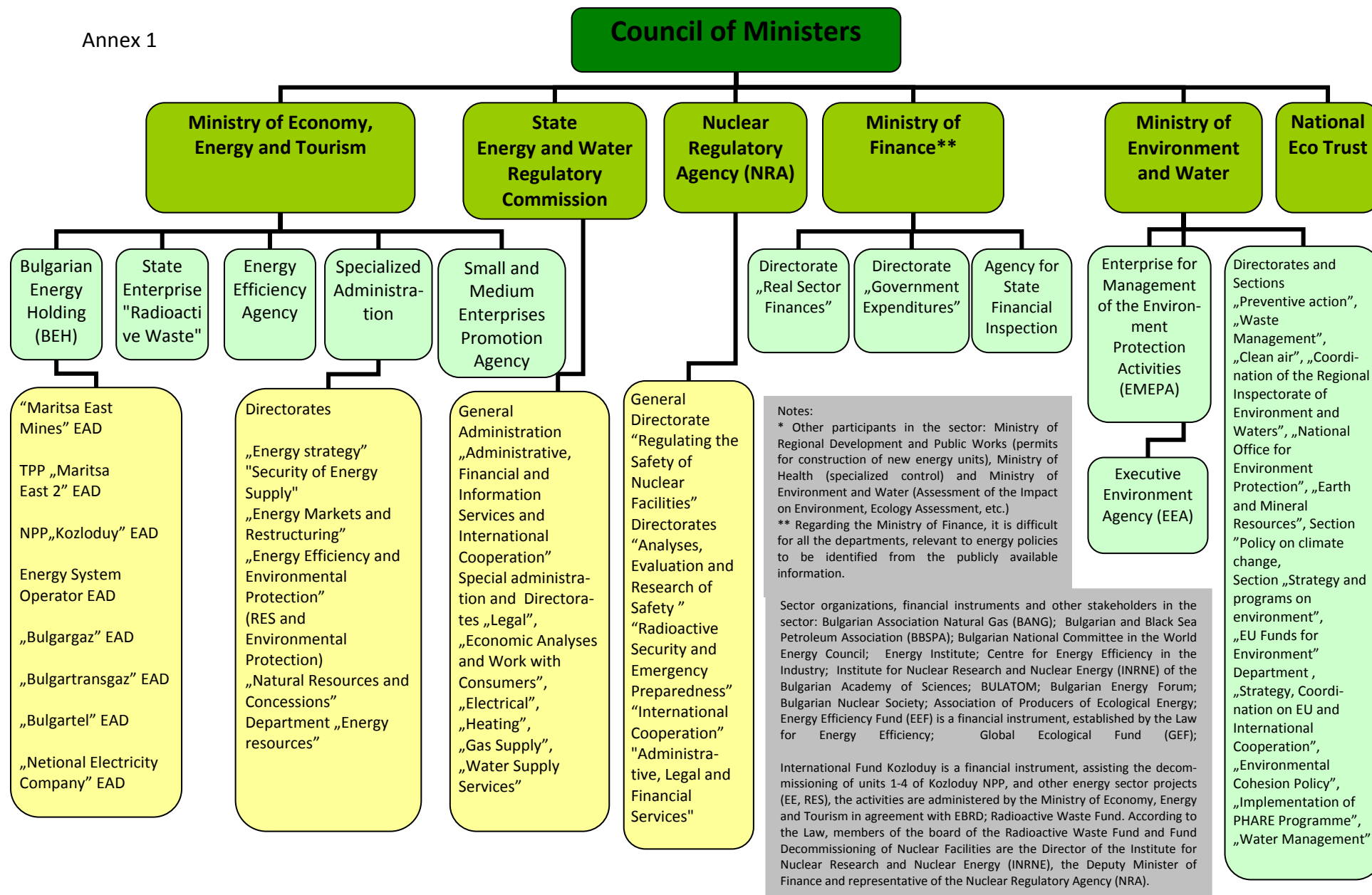
Energy efficiency (in final consumption and production) is the most cost-efficient method for increasing energy security and reducing the impacts of climate change. Although the Energy Efficiency Law was adopted in the fall of 2008, its effect on policy is still negligible. Instead, the state, often urged by the interest of energy lobbies, still continues to regard the increase in production capacity as upmost priority. It is necessary that energy efficiency is set as a priority, not only in strategic documents, but also on operational level - to take the necessary organizational and legal steps for the implementation of the law.

Terms definition

Not all terms in the draft strategy are defined in accordance to their political and economic meaning. For example, nuclear fuel is considered as a 'local' source, which changes the dynamics in the analysis of energy dependence.

Top down approach

The strategy protects and promotes the model of **'top down'** visions and directives. The text discusses the major energy goals and projects, but pays little attention to **small businesses and households** – to their problems and suitable solutions. Many countries are working towards the integration of small independent energy communities, towards the support of green business solutions and a 'bottom up' approach of strategic decisions making.



Notes:
 * Other participants in the sector: Ministry of Regional Development and Public Works (permits for construction of new energy units), Ministry of Health (specialized control) and Ministry of Environment and Water (Assessment of the impact on Environment, Ecology Assessment, etc.)
 ** Regarding the Ministry of Finance, it is difficult for all the departments, relevant to energy policies to be identified from the publicly available information.

Sector organizations, financial instruments and other stakeholders in the sector: Bulgarian Association Natural Gas (BANG); Bulgarian and Black Sea Petroleum Association (BBSPA); Bulgarian National Committee in the World Energy Council; Energy Institute; Centre for Energy Efficiency in the Industry; Institute for Nuclear Research and Nuclear Energy (INRNE) of the Bulgarian Academy of Sciences; BULATOM; Bulgarian Energy Forum; Bulgarian Nuclear Society; Association of Producers of Ecological Energy; Energy Efficiency Fund (EEF) is a financial instrument, established by the Law for Energy Efficiency; Global Ecological Fund (GEF); International Fund Kozloduy is a financial instrument, assisting the decommissioning of units 1-4 of Kozloduy NPP, and other energy sector projects (EE, RES), the activities are administered by the Ministry of Economy, Energy and Tourism in agreement with EBRD; Radioactive Waste Fund. According to the Law, members of the board of the Radioactive Waste Fund and Fund Decommissioning of Nuclear Facilities are the Director of the Institute for Nuclear Research and Nuclear Energy (INRNE), the Deputy Minister of Finance and representative of the Nuclear Regulatory Agency (NRA).