

FUNCTION OF THE ENERGY SECTOR BY ESTABLISHMENT THE NATIONAL AUTHORITY OF ENERGY SECURITY IN THE CONTEXT OF ENSURING NATIONAL AND EUROPEAN SECURITY

**NICOLAE DANIEL FÎȚĂ¹, MILA ILIEVA OBRETENOVA²,
MARINELA PANAYOTOVA³, DRAGOȘ PĂSCULESCU⁴, SORINA
DANIELA STĂNILĂ⁵, FLORIN GABRIEL POPESCU⁶**

Abstract: A strong and secure energy industry gives Romania a solid and secure economy, and in this way we can become a strategic partner with the other NATO and EU states. Thus, energy security becomes one of the most important pillars of national and European security. For this reason, the authors consider it necessary to establish the National Authority of Energy Security, which must concentrate, monitor, manage and control the entire national energy chain, creating factors of stability, safety, security and resilience to the most important and strategic sector in Romania and to be able to be prepared at any time for special crisis or war situation.

Keywords: national authority of energy security, European security.

1. INTRODUCTION

The establishment of the National Authority of Energy Security – N.A.E.S., directly subordinated to the President of Romania and the Supreme Defence Council of the country, must concentrate, monitor, manage and control the entire national energy chain, creating stability, safety, security, security and security factors. Security and resilience of the most important and strategic industrial sector in Romania and to be able to cope at any time with special crisis or war situations [7], [9].

¹ Ph.D., Ph.D., Lecturer, Eng., University of Petroșani, daniel.fita@yahoo.com

² Ph.D., Associate Prof. Eng., University of Mining and Geology I.Rilsky Sofia, mila.ilieva@mgu.bg

³ Ph.D., Prof. Eng., University of Mining and Geology I.Rilsky Sofia, m_panayotova@mgu.bg

⁴ Ph.D., Associate Prof. Eng., University of Petroșani, pdragos_74@yahoo.com

⁵ Ph.D., Associate Prof. Eng., University of Petroșani, sorina_stanila@yahoo.com

⁶ Ph.D., Lecturer, Eng., University of Petroșani, floringabriel82@yahoo.com

N.A.E.S., has the mission to create stability, security, energy security and implicitly national and European security factors, by bringing under the same umbrella all state or private entities in the energy industry, being able to successfully coordinate the entire national energy chain, for energy to be used for well-intended purposes, automatically bringing the well-being of citizens and Romania and not to be used as an energy weapon or pressure tool [8].

The increasingly frequent occurrence of cases of energy terrorism – black/brown-out (total/partial exit of some energy subsystems or the entire integrated National Energy System) and the use of energy as a possible energy weapon or pressure instrument around the world, It makes the approached proposal of great importance and actuality, knowing that certain critical on-shore or off-shore energy infrastructures on the territory of Romania or on the Romanian Black Sea platform, or certain appliances and equipment within these critical energy infrastructures: oil pumping stations, natural gas compression stations, power stations and power plants, offshore drilling rigs, extraction wells, refineries, marine terminals, strategic storage facilities, land or marine pipelines, land or marine pipelines, overhead power lines and certain nuclear installations or equipment, they can be remotely controlled by cyberattacks or they can be the target of terrorist attacks [10].

Failure to supply energy to consumers automatically triggers a national crisis, as all sectors of the national economy depend on energy. Once the crisis is triggered, a state of social imbalance sets in, which simultaneously brings extreme damage to the safety of the citizen and national security. In this context, the integrated National Energy System, through the other related subsystems: Energy resources, oil, natural gas, mining, nuclear, electricity becomes a strategic objective of national importance by being a generator of national and european critical infrastructures [4] [5].

2. PRINCIPLES OF OPERATION

The National Authority of Energy Security – N.A.E.S. is organized and operates as a specialized body of the central public administration, with legal personality, subordinated to the President of Romania and the Supreme Defence Council of the country [4], [12].

The management of N.A.E.S. is ensured by:

- 1 President with the rank of Secretary of State;
- 1 first Vice-President with the rank of Secretary of State;
- 5 Vice-Presidents with the rank of under-Secretary of State.

appointed for a period of 5 years and relieved from office by decision of the President of Romania.

Object of activity:

- monthly/quarterly/half-yearly/annual reporting or whenever the situation requires, to the President of Romania and/or the Supreme Council of National Defence, the national energy situation, as a component of the national security field, by the following [1], [2], [3], [11]:
 - very short / short / medium / long / very long term energy strategies (1 year - 50 years);

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- the situation and state of energy resources;
 - the situation and strategy of strategic energy reserves;
 - the state and state of the Integrated National Energy System.
 - carries out guidance and control activities in the entire national energy field;
 - ensures the energy security of Romania by:
 - management, monitoring and permanent control of a national strategic energy resource on-shore and off-shore;
 - management, monitoring and permanent control of the state strategic energy reserves stored;
 - management, monitoring and permanent control of the on-shore and off-shore National Petroleum System (oil / natural gas) and ensuring the closure of the full Romanian oil cycle;
 - management, monitoring and permanent control of the National Nuclear System and ensuring the closure of the full Romanian nuclear cycle;
 - management, monitoring and permanent control of the National Mining System and ensuring the closure of the full Romanian mining cycle;
 - management, monitoring and permanent control of the National Power System and ensuring the closure of the Romanian full power cycle;
 - establishment, management and monitoring of the integrated National Energy System, integrating all related energy systems: The National Petroleum System (oil / natural gas); the National Nuclear System; the National Mining System; the National Power System.
 - ensures the proper functioning, monitoring and correlation of all state or private energy authorities and companies, participating in the energy chain, with / without their dislocation within the current entity;
 - ensure the legislative harmonization of all energy entities involved in the energy chain;
 - ensure the security of place of works through optimal working conditions;
 - ensure the safety and health at work of workers within the energy entities participating in the energy chain, through mandatory national authorizations for the prevention of accidents at work and occupational diseases;
 - ensure the identification of all national and european critical energy systems and infrastructures;
 - ensures sector-specific risk assessment for all national and european critical energy systems and infrastructures;
 - ensures through physical and safe elements the prevention and combating of terrorism;
 - ensure through safe elements the prevention and fight against corruption;
 - provide energy efficiency elements;
 - ensures the issuance of certifications, licenses, attestations and authorizations;
- Structure by sections and departments:
N.A.E.S. is structured in 13 sections and departments, as follows: [4], [6]
- 1) STRATEGIC RESOURCES AND RESERVES SECURITY SECTION:
 - a. Department – Strategic resources;

- b. Department – Strategic reserves;
 - c. Department – Strategic storage.
- 2) PETROLEUM SECURITY SECTION:
- a) Department – Oil;
 - b) Department – Natural Gas.
- 3) MINING SECURITY SECTION:
- a. Department – Superior coal;
 - b. Department – Lower coal.
- 4) NUCLEAR SECURITY SECTION:
- a. Department – Uranium ore extraction;
 - b. Department – Uranium ore processing;
 - c. Department – Manufacture of nuclear fuel;
 - d. Department – Production of nuclear electricity;
 - e. Department – Radioactive waste disposal;
 - f. Department – Production and storage of heavy water.
- 5) POWER SECURITY SECTION:
- a. Department – National Energy System;
 - b. Department – Electricity production;
 - c. Department – Electricity transmission;
 - d. Department – Electricity distribution;
 - e. Department – Electricity supply.
- 6) OCCUPATIONAL HEALTH AND SAFETY SECTION:
- a. Department – Identification and evaluation of onshore risks;
 - b. Department – Identification and evaluation of offshore risks;
 - c. Department – Identification and risk assessment in potentially explosive environments;
 - d. Department – Personal authorization from the point of view of OHS;
 - e. Department – Personal authorization from an antiex point of view.
- 7) ECOLOGICAL SECURITY AND SUSTAINABLE DEVELOPMENT SECTION:
- a) Department – Ecological security;
 - b) Department – Sustainable development.
- 8) CYBERSECURITY SECTION:
- 9) SECURITY OF CRITICAL SYSTEMS AND INFRASTRUCTURES | CLASSIFIED INFORMATION SECTION:
- a. Department – Security of critical systems and infrastructures;
 - b. Department – Security of classified information.
- 10) PREVENTING AND COMBATING TERRORISM AND CORRUPTION SECTION:
- a. Department – Prevention and fight against terrorism;
 - b. Department – Prevention and fight against corruption.
- 11) ENERGY EFFICIENCY SECTION

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12) LICENSING | CERTIFICATIONS | AUTHORIZATIONS | ATTESTATIONS
SECTION:

- a. Department – Certifications;
- b. Department – Licensing;
- c. Department – Attestations;
- d. Department – Authorizations.

13) MONITORING AND CONTROL SECTION:

- a. Department – Monitoring and control of legal entities certified, licensed, certified;
- b. Department – Monitoring and control of authorized natural persons;
- c. Department – Monitoring and control of industrial consumer installations;
- d. Department – Monitoring and control of household consumer installations;

3. ORGANIZATIONAL CHART

The National Authority of Energy Security – N.A.E.S. organizational charts is as shown in Figure 1 and Figure 2 [4].

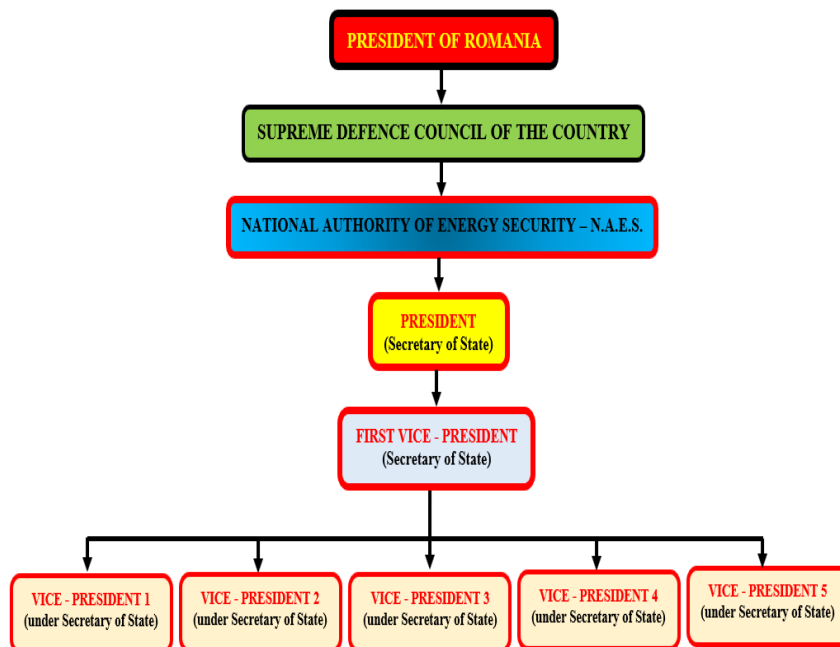


Fig. 1. The National Authority for Energy Security – N.E.S.A. organizational chart

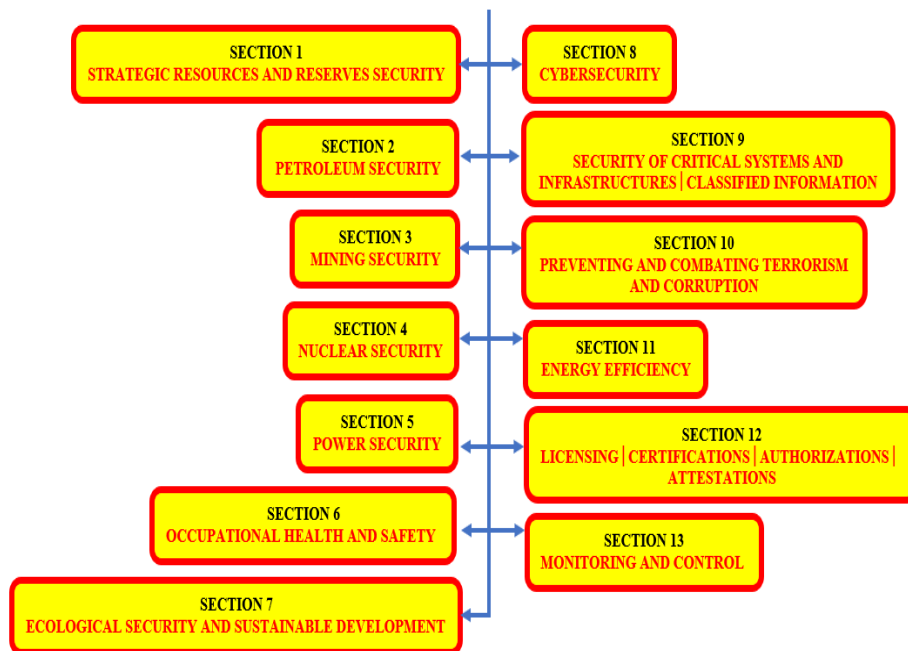


Fig. 2. The National Authority for Energy Security – N.A.E.S. – sections

4. CONCLUSIONS

The need to establishment an energy security entity results from the following considerations:

- a single national entity that includes the entire spectrum of the energy sector in the economy (simplistic approach and understanding) and simpler control of the President of Romania and the Supreme Council of Defense of the country regarding the situation at any time of the energy state of our country and implicitly of the energy security (from a single entity/person);
- according to Directive 2008/114/EC of the European Council of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection and the Government Emergency Ordinance no. 98 of 3 November 2010 on the identification, designation and protection of critical infrastructures, It is noted that within the energy sector, the 3 related sub-sectors are included under the same umbrella:
 - **electricity**: infrastructure and facilities for the production, transmission and distribution of electricity, including the energy resources used;
 - **oil**: oil production, refining, treatment, storage and distribution through pipelines;
 - **natural gas**: gas production, refining, treatment, storage and distribution via pipelines, LNG terminals.
- simple management and monitoring of all state or private companies in the entire energy chain;
- better transparency through common laws and regulations;

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- a single common investment strategy on the formation of the Integrated National Energy System;
- easier access to European funds on the formation, safety and security of the Integrated National Energy System;
- easier assessment and monitoring in terms of identifying risks, vulnerabilities, hazards and threats to the entire energy sector;
- the formation of a single integrated security system (Critical Infrastructure Protection Management, Occupational Safety and Health Management, Risk Management, Process Continuity Management, etc.), coherent, transparent and convergent toward the SECURITY objective;
- harmonization of all state entities, state companies and private companies, in a common technical and legislative system, through the principle of transparency;
- joint investments to combat and eliminate the vulnerability of energy security;
- the opportunity for joint scientific research dedicated to the risk assessment of each sector involved in the energy chain and the development of assessment methods dedicated to minimizing occupational risks that can be used by all actors involved.

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