

Canadian NATO
Parliamentary Association



Association parlementaire
canadienne de l'OTAN

**Report of the Canadian Parliamentary Delegation
Visit of the Science and Technology Committee Sub-
Committee on Energy and Environmental Security
Canadian NATO Parliamentary Association (NATO PA)
Romania and Bulgaria
May 12-15, 2008**

Report

The Canadian NATO Parliamentary Association has the honour to present its report on the visit of the NATO Parliamentary Assembly's Science and Technology Committee Sub-Committee on Energy and Environmental Security, to Romania and Bulgaria, May 12-15, 2008. The eighteen-member delegation, led by Sub-Committee Chairman Cristian Valeriu Buzea (Romania), met with senior representatives of ministries of Foreign affairs, defence, economics and environment and members of respective parliamentary committees in both countries as well as with independent experts. The delegation also visited nuclear power plants in Cernavoda (Romania) and Kozloduy (Bulgaria). Canada was represented by Senator Pierre Claude Nolin, who is the General Rapporteur for the Science and Technology Committee.

EXECUTIVE SUMMARY

Romania and Bulgaria occupy a strategic position between the largest energy consumer and producer markets. Both countries are engaged in multinational projects designed to secure supplies of oil and gas to Europe, including the EU-backed Nabucco gas pipeline and the South Stream project, advocated primarily by Russia.

The environmental aspect of energy projects was also emphasised. Nuclear energy is seen by Romanians and Bulgarians as a key to achieve greater energy independence while honouring commitments to reduce greenhouse gas emissions. The Bulgarian interlocutors noted that the forced premature closure of two reactors in Kozloduy resulted in increase of coal-based electricity production.

During the visit, the NATO PA delegation also discussed issues including the results of the Bucharest Summit, missile defence, space policies, naval training and environmental protection programmes.

ROMANIA

MINISTRY OF ECONOMY AND FINANCE

The programme started with a briefing at the Ministry of Economy and Finance, which is in charge of Romania's energy sector. Darius Mesca, Secretary of State for Energy, explained that Romania's long-term energy strategy is based on: 1) further development of its nuclear energy sector (along with further promotion of stringent safety standards); 2) diversification of hydrocarbon supply (participating in multinational pipeline projects such as the Nabucco and the Pan-European Oil Pipeline; expanding storage capacity and interconnecting electricity and gas grids with neighbouring countries); 3) significantly increasing the share of renewables in the country's energy mix, potentially up to 1/3 of energy consumption by 2010; 4) increasing energy efficiency (currently Romania lags behind in the EU in this area).

NATO legislators were also briefed about the operation of Transelectrica, the Romanian electricity system operator, which plays a key role in the Romanian electricity market. Transelectrica is responsible for electricity transmission, grid and market infrastructure development ensuring the security of the Romanian power system. This state-owned company has developed a comprehensive infrastructure protection plan, which would ensure safety even in adverse conditions including earthquakes, floods and storms.

Transelectrica works together with law enforcement agencies to protect infrastructure from perpetrators, including against cyber attacks.

MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

After the introductory remarks of Silviu Stoica, Secretary of State for Environment and Sustainable Development, members of the NATO PA delegation were briefed by senior officials of the Ministry on issues of climate change, industrial pollution and the Romanian participation in the NATO Environment-Related Programmes.

Romania was one of the first countries to ratify the Kyoto Protocol. The country committed itself to emission reduction by 8% by 2012, comparing to the levels of 1990. Since 1990, Romania's greenhouse gas emissions have decreased, but they are projected to go up as a result of the rapid economic development. Therefore, Romania faces a tough challenge when it comes to meeting its Kyoto commitments.

Romania is already experiencing adverse effects of the climate change. The average temperature rose during the period of 1901-2006. In recent years, this trend has been accelerating, causing more severe floods, droughts, losses of billions of Euro and even human life. The Ministry of Environment prepared a strategy to mitigate the effects of the climate change, but more specific action plans are needed on a lower level. Promotion of renewable sources is regarded as the key solution to the problem. Additional efforts are necessary to raise awareness of the problem in the public.

Prevention of industrial accidents involving hazardous materials is a high priority for the Romanian government. Romania is actively engaged in the environmental projects of the NATO Science for Peace and Security (SPS) Programme. For example, Romanian scientists were involved in partnership project with Russia on eco-terrorism in 2005-2007. Some of the SPS workshops and conferences took place in Romania and were related to issues such as oil spills and safety of natural gas transportation.

MEETING WITH MEMBERS OF THE ROMANIAN PARLIAMENT

The NATO PA delegation met with a group of senior Romanian legislators, including the Vice-Speaker Lucian Augustin Bolcas and leaders of several parliamentary Committees. The Romanian participants underlined the importance of energy security in the contemporary world, calling for a more active involvement of NATO in this field. The concept of security needs to be revisited to include issues such as energy, environment, food and water. However, traditional threats should not be forgotten either.

Iulian Ianku, Chairman of the Committee for Industries and Services, stated that energy and environmental problems will dramatically change our civilisation in near future. It is expected that by 2030 global energy consumption will double, global population will reach 9 billion and nature will not be capable to process the amount of CO₂ that mankind will be producing. This trend is unsustainable and requires urgent action. Poorer countries face a dilemma of developing their economies without harming the environment.

During the discussion period, Senator Pierre Claude Nolin (Canada) raised the issue of biofuels, asking if it was a mistake to promote this type of fuel, which is believed to have contributed to the global food crisis. Mr. Ianku agreed with that assessment, noting that food prices in Romania doubled in 2 years. This raises a question if we can afford to allocate land for biofuel production. An interesting aspect is that the current food crisis increases the demand for imported food which requires more cargo transportation which, in turn, increases demand for fuel, thus further exacerbating the problem. According to Mr. Ianku, only biofuel produced from waste and lands with low biodiversity could be a viable option.

ROMANIAN SPACE AGENCY

Marius-Ioan Piso, President of the Romanian Space Agency (ROSA), discussed the Romanian space programme. ROSA, established in 1991, represents Romania in international space co-operation. Its research centre is engaged in a number of projects, including development of nanosatellites, advanced data processing and space technology for disaster monitoring. During 2001-2006, ROSA was involved in 171 projects. Some of the projects are directly related to national security, such as Romania's GEOINT (geospatial intelligence) system, employed in multinational tactical and strategic military operations. Romania is expected to become a full member of the European Space Agency by 2010. ROSA is also co-operating with NATO Science for Peace and Security Programme as well as NATO Research and Technology Agency. Mr. PISO highlighted the importance of space assets in most military operations. The improvements in both ground and space based sensing will provide coalition forces with the full operational picture. He underlined the importance of developing microsatellites – such as Romania's GOLIAT microsatellite - that will allow a much larger number of countries to develop their own space capabilities.

Liviu Muresan, Executive President of the European Institute for Risk, Security and Communication Management (EURISC), discussed the issue of protection of critical energy infrastructure. When it comes to routes of energy supplies, the Black Sea finds itself in a strategic location in the centre of the geopolitical axis of the 3 seas: Mediterranean, Black and Caspian. Oil and gas from Central Asia and the Middle East

move along Black Sea shipping lanes and pipelines to Europe and other westward points. The same shipping lanes work for the trafficking of narcotics, persons (including terrorists), conventional weapons, and components for weapons of mass destruction (WMD). The Black Sea's six littoral states (Bulgaria, Romania, Ukraine, Russia, Georgia, and Turkey) are beginning to construct a tentative regional identity.

The region is a nexus of cultures, international trade (legal and illicit), ideas and influences. It serves as a platform for military, reconstruction, and stabilisation operations in Afghanistan, Iraq, and possibly Iran.

NATO has not traditionally played a role in energy security matters. Its Strategic Concept notes that a threat to energy supplies could pose a strategic danger, yet there is no agreement among allies on the definition of a NATO Energy Security Policy. It can, however, play a more active role in defending energy infrastructure and the flow of oil and gas on the high seas. NATO might coordinate policies among member states and with non-member partner governments to share resources and to bring an end to an energy disruption. NATO might also provide security for infrastructure in energy-producing states facing unrest. A political role in energy security for NATO seems possible in the near future: the Allies have begun discussions with Bahrain, Qatar, Kuwait, and the United Arab Emirates to build practical cooperation in the security field, including the fight against terrorism.

Critical infrastructures protection (CIP) is a particularly challenging policy area. Due to globalisation, the critical infrastructure network is as strong as its weakest link in the chain. Critical infrastructures include an increasing number of facilities and activities that fall outside the realm of government control as they are owned or operated by the private sector. Thus, a crucial component of CIP is the establishment of public-private partnerships - system of incentives, engaging the private sector in the fulfilment of national security objectives. It is particularly important to ensure the compatibility of international efforts, and avoid duplication and waste of resources in Europe and beyond.

CERNAVODA NUCLEAR POWER PLANT

Ionel Bucur, Cernavoda Nuclear Power Plant (NPP) site Director, briefed NATO legislators on the NPP, stressing that it is based on CANDU reactors that use heavy water as a moderator. In these type of reactors, natural - and not the enriched – uranium is used as a fuel. Currently, 2 reactors are in operation (Units 1 and 2), supplying 17% of Romania's electricity demand. Three additional units are planned. Electricity and heating is provided at lowest prices in Romania. The life time of reactors is 30 years, but a life extension programme has been launched. Nuclear waste is stored in an interim storage facility on the NPP site. Waste can be kept in this facility for roughly 50 years. During this period, it is expected that the solution for final disposal will be found. Cernavoda NPP is also an important economic factor for Romania in terms of budget revenues, and especially for the local community by providing jobs and heating for Cernavoda inhabitants.

After the briefing the members of the delegation had an opportunity to visit the NPP site.

BULGARIA

MINISTRY OF ECONOMY AND ENERGY

Energy security was the dominant theme of meetings in Sofia. Deputy Minister of Economy and Energy Yavor Kuyumdjiev said that the October 2005 Treaty establishing the European Energy Community will gradually create the largest competitive energy market in the world, securing its liquidity and resilience to price fluctuations. Bulgaria counts on the Energy Community to better meet its energy needs, especially in the period after 2010, when Bulgaria will face an energy gap as a result of a shutdown of 4 nuclear reactors.

The strategic location of Bulgaria provides opportunities for diversification of its energy mix. A new nuclear power plant will be built in Belene and new thermoelectric and hydropower plans are envisaged as well. Natural gas projects – the Nabucco and the South Stream – are expected to ensure a steady supply of gas at a reasonable price. The South Stream project is already underway, with Bulgaria signing an agreement with Russian Federation in January 2008. New oil pipeline projects are also planned, stretching from the Bulgarian port of Bourgas to Alexandroupolis, Greece and Vlore, Albania.

Veneta Tsvetkova, Head of the Energy Markets unit of the Ministry, spoke in more detail about Bulgaria's energy strategy, which is currently in preparation and it is expected to be adopted by November this year. As a member of the European Union, Bulgaria will contribute to the EU's "20-20-20" goal (reducing CO₂ emissions by 20% compared to 1990; increasing the share of renewables to 20% and improving energy efficiency by 20% by 2020). Bulgaria plans to increase the share of renewables in final energy consumption to 16% (up from less than 10% now).

Environmental aspects of energy security are particularly worrisome for the Bulgarian authorities: after the closure of 4 reactors of the Kozloduy NPP, the coal-fired plants account for more than 40% of electricity generation. This share is projected to increase further as the new lignite plant will be commissioned soon. Although the EU authorised the 20% increase of CO₂ emissions by 2020 for Bulgaria, it is also projected that after

2013 the coal-fired plants will have to pay for all emission allowances. This would make coal-fired plants uncompetitive in comparison with gas-fired plants, which would in turn mean higher gas import dependency for the country. Bulgaria's strategy to deal with this dilemma is threefold: 1) to seek equal treatment of all electricity generation plants and other industry installations in the EU; 2) to request a transitional period of free allocation of emission allowances in 2013-2020; 3) to promote clean coal technologies (CCS) with the EU's financial support.

With respect to regional and international co-operation, Mrs. Tsvetkova highlighted the role of the European Energy Community. The process of setting up an energy market for South-east Europe started in 1999 in Thessalonica, Greece, and developed into a pan-European framework. The objective of the Community is to guarantee an uninterrupted supply of energy commodities to the region, to liberalise the market and to ensure that environmental concerns are taken into consideration. She explained the organisational structure of the Energy Community and pointed out that Bulgaria seeks to establish and host an Office of the Energy Community Observatory to monitor the flows of energy resources in the region.

Further development of the regional energy infrastructure is an important prerequisite for the success of the regional energy market. In terms of nuclear energy, Bulgaria has large investment projects to modernise Units 5 and 6 of the Kozloduy NPP and to construct a new nuclear capacity at the site of the Belene NPP. New electricity grid interconnections are planned with Greece and FYR Macedonia. As far as natural gas is concerned, the Nabucco and the South Stream are the two parallel projects, both expecting to pump up to 31 billion cubic meters of gas per year. More progress has been achieved on the South Stream. Other gas projects include grid interconnections with Turkey and Greece and the establishment of the regional LNG terminal on the Aegean Sea. With regard to oil, both the Bourgas-Alexandroupolis and Bourgas-Vlore pipelines, once completed, will pump 0.75 million barrels per day each. These pipelines are expected to lift some pressure from the oil route through the Bosphorus.

MINISTRY OF FOREIGN AFFAIRS

Petio Petev, Director of the NATO and International Security department of the MFA, underscored the correlation between energy and national security. Climate change acts as a threat multiplier: degrading climate has a particularly damaging effect on poorer countries, thus increasing the potential for conflict. A terrorist attack on energy infrastructure would also have severe consequences.

Bulgaria is at the key strategic location in terms of energy supplies. Once the multinational projects such as the Nabucco, the South Stream and the two oil pipelines are complete, the density of pipeline and grid network in South-east Europe will become comparable to that in Central Europe. Mr. Petev also noted that although many of the energy projects in Europe have a Russian dimension, the long-term trend is towards greater geographical diversification of supply. NATO's role in energy security is secondary, but the Alliance can bring an added value due to its broad array of tools, including mechanisms for threat assessment and sharing of intelligence information.

KOZLODUY NPP

Ivan Genov, Executive Director of the plant, gave a presentation on the history, the current situation and the prospects of the plant, which is the largest NPP in the region. For power generation, pressurised water reactors are used.

NATO Parliamentarians had an opportunity to visit the facilities of the Kozloduy NPP.

In Bulgaria, the members of the NATO PA delegation also visited the Bulgarian Naval Academy in Varna and were briefed about the educational programmes of the Academy. They also observed astronavigation and battleship navigation simulations.

Respectfully submitted,

Mr. Leon Benoit, M.P.

Chair

Canadian NATO Parliamentary Association (NATO PA)

Travel Costs

ASSOCIATION	Canadian NATO Parliamentary Association (NATO PA)
ACTIVITY	Visit of the Science and Technology Committee Sub-Committee on Energy and Environmental Security
DESTINATION	Romania and Bulgaria
DATES	May 12-15, 2008
DELEGATION	
SENATE	Senator Pierre Claude Nolin
HOUSE OF COMMONS	
STAFF	
TRANSPORTATION	\$3,368.12
ACCOMMODATION	\$909.57
HOSPITALITY	\$0.00
PER DIEMS	\$291.10
OFFICIAL GIFTS	\$0.00
MISCELLANEOUS / REGISTRATION FEES	\$0.00
TOTAL	\$4,568.79