

# Nuclear Security in the EU's vicinity: Challenges of the Metsamor Nuclear Power Plant

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Armenia's aging Metsamor Nuclear Power Plant continues to pose a serious challenge to regional security. The decommissioning of Metsamor was included in both the 2006 European Neighborhood Policy (ENP) Action Plan and the 2017 Comprehensive and Enhanced Partnership Agreement (CEPA). Despite this, the European Union has thus far been unable to produce either the requisite material incentives or political pressure points to compel Yerevan to take action. This paper analyzes the ways in which the EU's previous experience using conditionality on nuclear issues with the Central and Eastern European countries can provide valuable insights on the lack of EU leverage over Armenia in this regard. One of the key findings is that more substantial "carrots" are needed for a policy change in this field. These incentives include deeper integration perspectives or commitment to major investments in Armenia's nuclear sector. The research also underlines the importance of changing the regional constraints on Armenia's energy options.

Key words: EU, Nuclear Policy, Metsamor, Armenia, Nuclear Security



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## ***Introduction***

Nuclear energy has been a core element of European integration, perfectly illustrated by the signing of a specific treaty on nuclear energy – the EURATOM – in 1957, which, along with the Rome Treaty, established the European Economic Community. Contemporary dilemmas included the need to address energy shortages through the peaceful use of nuclear power and further integration in a safe and transparent way. The challenges posed by nuclear energy have changed considerably. In the 21<sup>st</sup> century, nuclear energy is an integral part of the climate change agenda and of discussions on economic competitiveness and energy security more broadly. The views on nuclear energy and nuclear safety vary considerably across regions and economic contexts, hampering the development of a strong consensus on these issues.<sup>1</sup>

Nuclear security is addressed by the EU both as an intra-EU issue and a foreign policy matter. At the intra-EU level, nuclear issues remain largely under national competence, though framed in the context of EURATOM, whose functions include regulating the European civil nuclear industry and contributing to safeguarding nuclear materials and technology, facilitating investment, research and development, as well as ensuring equal

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access to nuclear supplies and correct disposal of nuclear waste and safety of operations.<sup>2</sup> The European Commission has a central role in this process, together with national regulatory and supervisory bodies. At the external level, the EU cooperates with third countries and international organizations on nuclear security. EU engagement has been visible in high profile diplomatic mediations, including the Iranian nuclear deal and the

sanctioning of the North Korean nuclear program. Moreover, the EU has also sought to increase its technical capacity, through collaboration with international organizations. According to the EU, ‘In 2013, the European Commission signed a Memorandum of Understanding with the International Atomic Energy Agency (IAEA) to further cooperation, including on expert peer reviews and strengthening emergency preparedness and response’.<sup>3</sup>

1 Toth, F. L. (2008) ‘Prospects for nuclear power in the 21st century: a world tour’, *International Journal of Global Energy Issues*, 30(1-4), 3-27

2 European Parliament (2017) *Briefing: European Atomic Energy Community (Euratom) – Structures and tools*, Brussels: September.

3 European Commission, information available at <https://ec.europa.eu/energy/en/topics/nuclear-energy/nuclear-safety> (Accessed: 28 April 2018)

The accumulation of political capital and technical knowledge on nuclear issues should serve as an important source of leverage in the EU's relations with Armenia over the issue of the Metsamor Nuclear Power Plant (NPP). One would expect this leverage to be significantly higher in the context of the EU's Eastern Partnership (EaP), since substantial financial and political capital has been invested in relations with the EaP countries. This article addresses the question of why the EU has been unable to assist Armenia in decommissioning this NPP, despite the fact that this issue has featured on the bilateral agenda for more than 10 years.

Building on previous research on conditionality and nuclear security, which highlights the limits of EU conditionality in changing the nuclear policies of the Central and Eastern European countries<sup>4</sup>, this article advances the argument that a change in Armenia's regional setting is key to facilitating the country's decision to decommission the Metsamor NPP. The exclusion of Armenia from the energy development of the Caspian region and its weak and fragile economy, - still under a Turkish and Azerbaijani blockade - has created a strong domestic opposition to losing this important source of energy production. The limited prospects for integration with the EU further reinforce dependence on Russia, which has been actively committed to supporting the renovation of facilities rather than decommissioning the existing unsafe ones.

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### ***EU-Armenia Relations and the Relative Marginality of the Metsamor NPP Issue***

The decommissioning of the Metsamor NPP has been included in all bilateral agreements between the EU and Armenia under the European Neighborhood Policy (ENP). The ENP Action Plan, which entered into force in 2006, states clearly as priority area number six the 'Development of an energy strategy, including an early decommissioning of the Medzamor'. The objectives under this priority area included efforts aimed at integrating Armenia into the EU's energy networks and

4 Oudenaren, J. V. (2001) 'The Limits of Conditionality: Nuclear Reactor Safety in Central and Eastern Europe, 1991-2001' *International Politics*, 38(4), 467-498

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increasing energy efficiency and diversification, as well as supporting the country in addressing the costs of decommissioning the NPP.<sup>5</sup> The Armenian government initially agreed to decommission the facilities by 2016, but reversed its decision in 2014, announcing that the NPP would keep running until 2026. This decision is primarily a reflection of Yerevan's inability to secure foreign investment, namely from European and US sources, to build more modern nuclear facilities.

The more recent Comprehensive and Enhanced Partnership Agreement (CEPA) signed between the EU and Armenia in 2017, maintains as one of its objectives 'the closure and safe decommissioning of Medzamor nuclear power plant and the early adoption of a road map or action plan to that effect, taking into consideration the need for its replacement with new capacity to ensure the energy security of the Republic of Armenia and conditions for sustainable development'<sup>6</sup>. This wording suggests that the EU is aware of the pressures on the Armenian government to maintain the NPP. In fact, President Sargsyan stated that 'In the agreement with the European Union this provision [on Metsamor] is formulated taking into account the objective time of operation of the Metsamor NPP. The Armenian government adopted a decision in March 2014 on extending the term of the Armenian NPP's operation. The financing of the project on extending the operation term will be carried out at the expense of 270 million USD Russian state export loan and 30 million USD grant'. He added, 'We think that the Nuclear Power Plant will always be in Armenia for our own security and first of all for energy security purposes'.<sup>7</sup> In this light, the EU's ability to influence Armenian nuclear policy is rather limited, and the issue has taken a back seat amidst the growing tensions in EU-Russia relations.

Nevertheless, there has been a heated debate in Armenia around the provisions of the EU-Armenia agreement regarding

5 European Union-Government of Armenia (2006) *EU-Armenia ENP Action Plan*.

6 European Union-Government of Armenia (2017). *Comprehensive and Enhanced Partnership Agreement*, p.46.

7 'Discussions on closure of Metsamor NPP have nothing to do with reality, says Armenian President', *Armenpress*, 1 November, 2017. Available at: <https://armenpress.am/eng/news/910901/> (Accessed: 28 May 2018).

Metsamor. Prior to the presentation of the final text, the main fear within some circles in Armenian society was that the EU would impose some form of conditionality, demanding the closure of the NPP within a specific timeline. Disinformation has been spread by the media, including by Russian outlets, regarding the final provisions. However, as the above quote indicates, the decommissioning of the NPP is designed as a process with which the EU will assist, including contributions to the country's nuclear security as well as the implementation of concrete mechanisms for energy reform. This is indeed a long way from the initial notion of the ENP AP, that the decommissioning of the NPP could be used as a precondition by the EU in its relations with Armenia.<sup>8</sup> It is evident that the EU and its nuclear powers have been reluctant and unable to finance Armenia's nuclear needs, including the construction of a new NPP. Consequently, Metsamor remains operational despite the fact that EU officials believe that 'it is impossible to improve its operation to an extent that fully meets international standards and safety requirements'<sup>9</sup>.

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The lack of EU leverage on this issue needs to be understood from two perspectives. On the one hand, EU-Armenia relations have been affected by Yerevan's decision not to sign an Association Agreement with the EU and instead join the Eurasian Economic Union, precluding a Deep and Comprehensive Free Trade Agreement with the EU. This has reduced the EU's political and financial leverage over Armenia, with negative implications for the nuclear energy issue. The second aspect is linked to the fact that international practices regarding nuclear security in Soviet-era reactors have often prioritized the security upgrade option, avoiding the divisive issue of investing in new nuclear facilities.<sup>10</sup> Both issues are addressed in more detail in the following section.

8 Bedevian, A. (2006) 'Nuclear Plant Closure "Precondition" For Closer Ties with EU', Azatutyun. 31 October. Available at: <https://www.azatutyun.am/a/1584864.html> (Accessed: 28 May 2018).

9 Dirk Lorenz, the Deputy Head of Division for the Eastern Partnership Countries in the European Union's External Action Service, quoted in 'European diplomat calls for soonest closure of Armenian nuclear power plant', *ARKA news agency*, 30 January 2018. Available at: [http://arka.am/en/news/technology/european\\_diplomat\\_calls\\_for\\_soonest\\_closure\\_of\\_armenian\\_nuclear\\_power\\_plant/](http://arka.am/en/news/technology/european_diplomat_calls_for_soonest_closure_of_armenian_nuclear_power_plant/) (Accessed: 28 May 2018).

10 Oudenaren, J. V. (2001) 'The Limits of Conditionality: Nuclear Reactor Safety in Central and Eastern Europe, 1991-2001', p. 469.

### *Western Conditionality on Nuclear Security*

*The issue of nuclear security was put on the Western agenda following the Chernobyl nuclear accident in 1986, but it was only after the dissolution of the Soviet Union that international agencies gained access to many of the nuclear facilities across the post-Soviet space, and managed to develop an accurate assessment of the challenges in this field.*

The issue of nuclear security was put on the Western agenda following the *Chernobyl* nuclear accident in 1986, but it was only after the dissolution of the Soviet Union that international agencies gained access to many of the nuclear facilities across the post-Soviet space, and managed to develop an accurate assessment of the challenges in this field. The picture that emerged was much bleaker than initially thought, and a consensus was formed among western states and the newly independent republics that major investments were needed, in addition to updated standards and procedures.<sup>11</sup> It is notable that most of these issues were addressed via multilateral frameworks, including through the creation of the G-24 Nuclear Safety Assistance Coordination, coordinating bilateral and multilateral assistance. Several of the institutional mechanisms created by western institutions were marshaled to frame this assistance and to support it, including financially. These included the European Bank of Reconstruction and Development, the European Bank of Investment, and even EURATOM, which, for the first time in 1993, created a credit line of 1.1 billion ECU to fund nuclear activities outside EU territory.<sup>12</sup>

The European Communities were, from the outset, invested in the issue of nuclear security in the post-Soviet countries and this was reinforced when several of the Eastern European countries applied for EU membership. From these countries' perspective, nuclear energy remained a fundamental aspect of their energy security and they were largely amenable to upgrading their facilities. For many in the EU, the US and in international organizations, decommissioning offered the least expensive and generally preferable option, complemented by the commitment to finding alternatives to assure the energy needs of these countries. The reconciliation of these divergent views would have to be framed in the context of asymmetrical relations, namely these countries' bids for EU membership. Whereas prior to EU membership negotiations, many of these countries managed to evade serious commitment to decommissioning old nuclear facilities, while

<sup>11</sup> *Ibid*, p. 468.

<sup>12</sup> *Ibid*, pp. 470-1.

securing assistance for upgrades, once membership was on the table the European Commission managed to exert nuclear-related leverage more clearly.

According to Checkel, conditionality is affected by three sets of issues, which are visible in the analysis of EU conditionality over candidate countries as well as in its relations with ENP countries, like Armenia. The first issue is politicization, which means that conditionality is not applied evenly by donors, but is rather instrumentalized for political purposes. The second issue has to do with domestic ownership, which means that often those who bear the costs, and those who reap the benefits of specific actions are not the one and the same. Their agendas may conflict, creating domestic cleavages and undermining national consensus. Finally, a fragmented policy environment means that policy issues may become framed by new intervening variables that change the different actors' calculations.<sup>13</sup> All three dimensions are clearly present on the EU's nuclear energy agenda with Armenia.

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In the case of Armenia, where EU membership is not on the table, and considering the limited political integration available through CEPA, leverage to force the Armenian government to close the NPP will most likely remain weak. The issue of politicization of the EU's conditionality is clearly visible, especially since the Eastern Partnership has become such a sensitive issue in EU relations with Russia, and since Armenia has faced great pressure from Moscow not to join western-led institutions and programs. In this scenario, EU demands for Metsamor's closure would be perceived as unwanted and unjustified pressure on an issue that raises concerns among Armenians. Energy diversification is a major part of the country's energy security strategy, and nuclear energy is a central part of that strategy.<sup>14</sup> Thus, negative conditionality on the nuclear energy issue by the EU would likely damage regional perceptions of the EU and undermine its strategic interests. On that basis it has been avoided, demonstrating a political reading of EU interests.

Domestic ownership of the nuclear security issue in Armenia

13 Checkel, J. T. (2000) 'Compliance and Conditionality', *ARENA Working Paper* WP 00/18.

14 Alieva, L. and Shapovalova, N. (eds) (2015) *Energy security in the South Caucasus: views from the region*, *Cascade working paper*, November.

is also complex. On the one hand there is strong cross-cutting opposition to depriving Armenia of nuclear energy. On the other hand, the ways in which this option has been maintained, namely by deepening reliance on Armenia's overpowering ally – Russia – has created unease. Conditionality by the EU on this issue would have to overcome domestic opposition, namely by clearly articulating the alternatives available and upgrading the financial commitment to this option (i.e. building a new NPP). This would also help Armenia reduce its energy and economic dependence on Russia. Finally, the issue of the fragmented policy environment on nuclear safety is a particularly strong feature. Assessments on the reliability of existing infrastructure and their capacity to withstand shocks have varied considerably. Technological advances have proved very efficient in upgrading the life span of old reactors well beyond their expected life cycle and in secure conditions. As such, EU leverage is reduced as new appraisals are made available, undermining the credibility of western donors. Considering these aspects, Armenia's future energy options are also linked to the ability to change its regional standing.

### *Nuclear Security and the Regional Context*

Divisions over the fate of Armenia's NPP must be understood in the framework of its regional context. For most developing countries, nuclear energy is mainly a tool of sustainable economic development and a means of assuring self-sufficiency. This is also the view articulated by the Armenian government in the Armenia Development Strategy for 2014-2025, where the main directions for the energy sector are listed as:

- '1) maximum use of own sources, specially renewable sources of energy; 2) further development of nuclear energy, in particular construction of new energy block and enhance in security of Armenian nuclear power station's 2<sup>nd</sup> energy block and extension of its utilization period; 3) replacement of physically and morally depreciated power plants with those furnished with new technologies; 4) diversification of energy supplies and regional integration; 5) promotion of energy efficiency in all sectors using energy resources; 6) Increase of the level of safety and

reliability of the electroenergetic system.’<sup>15</sup>

Nuclear energy is clearly an important element in Armenia’s calculations, especially since integration with its most dynamic energy partners, such as Georgia, Azerbaijan or Turkey, will remain highly unlikely as long as the Nagorno Karabakh conflict remains unresolved. Armenia’s regional context limits the prospects of integration into regional energy projects, while relations with Russia remain the single most significant point of leverage vis-à-vis relations with Azerbaijan and Turkey. Successive governments since independence have largely failed to consolidate the country’s integration into western institutions or to build the necessary domestic consensus and political will to make concessions on the Karabakh conflict with Azerbaijan, which would significantly diminish its regional isolation and dependence on Russia.

The integration of the South Caucasus into world energy distribution lines, ongoing since the mid-1990s, has not benefited Armenia. The development of two important energy corridors from Baku to Turkey and then onwards to European and global markets has instead benefited Georgia as the privileged transit country. This has translated into economic and political benefits for both Azerbaijan and Georgia, while the marginalization of Armenia has amplified its peripheral status on regional development as well as its dependence on Russian investments and energy. Armenia’s attempts to integrate with Iran have resulted in the opening of a gas pipeline, but Russia remains the country’s most significant energy exporter.

Russia’s role in the process of maintaining Metsamor has proved dubious. Russia has been the most significant investor in the Armenian nuclear energy, stepping up where others have failed to act, including in financing the upgrade of security controls in Metsamor. However, its approach has served as a strong disincentive to the decommissioning option. Moreover, this investment should be perceived as part of a deliberate strategy to control the energy sector in Armenia, thereby accumulating political leverage over Yerevan and simultaneously absorbing the profits of these

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15 Armenian Government (2014) ‘Armenia Development Strategy for 2014-2025, RA Government Decree # 442 - N’., 27 March.

operations.<sup>16</sup> Over the last few years, Russia has been actively engaged in building nuclear reactors in several countries, including Turkey, which suggests that this is an important and lucrative business, valuable for its struggling economy.<sup>17</sup> Moreover, the nuclear sector remains a highly strategic area for Russian foreign policy, contributing to presenting the Russian Federation as a leading actor in a politically relevant sector.<sup>18</sup>

In this scenario, Armenia remains unlikely to consider a non-nuclear option. As the Caspian energy boom fails to translate into increased energy security for Armenia, the short-term benefits of keeping Metsamor open with Russian assistance remain very attractive to Armenia's decision-makers. Proper monitoring the implementation of these agreed measures for upgrading is crucial, especially in a country riddled with corruption. The velvet revolution that led to the resignation of Prime-minister Serzh Sargsyan, in April 2018, may open new important changes in domestic governance. But it remains rather unclear to what extent a new government with increased popular support will be able to change existing views on strategic issues like nuclear energy, relations with Russia or the Nagorno Karabakh conflict.

### **Conclusion**

Metsamor NPP continues to pose a serious challenge to regional security, due to its aging features. Armenia's neighbors Azerbaijan and Turkey have voiced their concerns over the regional risks entailed by Armenia's decision to postpone the decommissioning of the NPP. Although the EU included this issue in both the ENP Action plan of 2006 and in the CEPA of 2017, it has failed to provide Yerevan with either the requisite material incentives or the political pressure points. This paper has analyzed the ways in which the EU's previous experience using conditionality on nuclear issues with the Central and Eastern European countries can provide valuable insights on the lack of EU leverage over

16 Ustohalova, V. and Englert, M. (2017) 'Nuclear safety in crisis regions', *Darmstadt: Institute for Applied Ecology*. Available at: <https://www.oeko.de/fileadmin/oekodoc/Nuclear-safety-in-crisis-regions.pdf> (Accessed: 28 May 2018), p. 24.

17 Information available at the World Nuclear Association. <http://world-nuclear.org/information-library/country-profiles/countries-a-f/armenia.aspx> (Accessed: 28 April 2018).

18 Grigoriadis T.N. (2012) 'Nuclear Power Contracts and International Cooperation: Analyzing Innovation and Social Distribution in Russian Foreign Policy', in Aggarwal V., Govella K. (eds) *Responding to a Resurgent Russia*. Springer, New York, NY, pp. 69-83.

Armenia in this regard. One of the key findings was that more substantial “carrots” are needed for a policy change in this field. These incentives include deeper integration perspectives or commitment to major investments in Armenia’s nuclear sector.

In the absence of such incentives, Armenia’s regional context further reinforces the domestic consensus around energy diversification and the energy independence provided by the NPP. Armenia has withstood, with remarkable confidence, Azerbaijan’s strategy of isolation, imposed as a result of the ongoing Nagorno Karabakh conflict and Armenia’s continued occupation of Azerbaijani territories. This strategy has come at great cost to Armenians, individually, socially, economically, and politically. It has also reinforced the trend of regional division and fragmentation, to which the permanence of the Karabakh conflict contributes. The only way out of this dilemma is for both Azerbaijan and Armenia to engage in meaningful peace talks that can lead to a mutually acceptable agreement.

This could improve the prospects for Armenia’s inclusion in regional energy projects and improve its potential as a profitable energy market, namely contributing to the energy security of the northern parts of Iran through exports. This strategy needs to be explored not as the least feasible option, as it has over the last decades, but rather as the only viable one, if the region’s future is to be one of peace and development. This could also mean that nuclear energy could finally be taken out of the equation by Armenia, or that it could be produced in secure, modern facilities. In either scenario, the EU must take a stronger role in facilitating the peace process, as well supporting investment in Armenia’s energy security.