Energy Research & Social Science 27 (2017) 9–13

Contents lists available at ScienceDirect

Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss

Perspectives

Anatomy of a black sheep: The roots of the Czech Republic's pro-nuclear energy policy

Jan Osička [a,b,c,*], Filip Černoch [a,c]

[a] Center for Energy Studies, Masaryk University, Joštova 10, 602 00 Brno, Czech Republic
[b] International Institute of Political Science, Faculty of Social Studies of Masaryk University, Joštova 10, 602 00 Brno, Czech Republic
[c] Department of International Relations and European Studies, Faculty of Social Studies, Masaryk University, Joštova 10 602 00 Brno, Czech Republic

ARTICLE INFO

Article history:
Received 24 October 2016
Received in revised form 6 February 2017
Accepted 8 February 2017
Available online 17 February 2017

Keywords:
Nuclear energy
Strategic culture
Path dependence
Energy policy

ABSTRACT

Nuclear energy is one of the cornerstones of the contemporary Czech energy policy. In the country of ten million people, six commercial reactors are on line and two to four new units have been envisaged by recent official documents. The Czechs seem to be committed to nuclear despite the contemporary trends in both the regional and European energy policies, which clearly favor renewable and/or more flexible conventional sources. In this article we examine the main drivers behind the Czech Republic's enduring interest in nuclear energy. The main line of reasoning is informed by Jack Snyder's strategic culture concept, which stresses cultural factors and factors related to the structural characteristics of a country's decision-making process in explaining how concrete policies come into existence. Since such a perspective is rather rare in the field of energy policy analysis, the broader aim of this article is to attract more scientific attention to explanations that go beyond standard techno-economical or systemic analyses.

1. Introduction

In the aftermath of the Fukushima accident, the European Commission tightened nuclear safety rules and many European countries turned away from nuclear power. Belgium, Switzerland, Spain, and even France have all reconsidered their nuclear energy policies [1]. Germany, with its game-changing "Atomausstieg" decision, has finally officially joined Austria in its strong opposition of nuclear. At the same time, their common neighbor, the Czech Republic, introduced an ambitious plan to build as many as 14 new reactor units by 2060 in its 2011 draft of the State Energy Policy Update (SEPU) [2]. Despite the SEPU's final version, issued in 2014, reduced the number of new units to between two and four [3], it remains clear that the Czech energy policy is following a whole different direction to the ones of Germany and Austria. Remarkably, the pro-nuclear policy continues despite the constraining features of the nuclear power plants such as lengthy construction times, immense capital costs and little output flexibility, all of which make them increasingly difficult to build and operate profitably under the current market conditions ([4]: 107–113). As the future markets of conventional sources are generally believed to demand flexibility for balancing the non-dispatchable renewable sources, a decision to build a country's energy policy around capital-intensive and inflexible nuclear power may be difficult to explain via standard techno-economic or systemic analyses. Hence, this paper focuses on cultural factors as well as factors related to the structural characteristics of the country's decision-making process. As such, it is significantly informed by Jack Snyder's strategic culture concept, through which he explains the different reactions of different decision-making systems to the same input information ([5,6]: 8). According to Howlett ([7]: 3), strategic culture is a product of a range of circumstances such as geography, history and narratives that shape collective identity, but one which also allows it a role in both enabling and constraining decisions about security. In accordance with Dellecker and Gomart [8], Kim [9] or Hadfield [10] we argue that the concept can also be utilized for guiding energy policy research. From this perspective, the specific energy policies are influenced and enabled/constrained by the factors that are specific to the cultural and structural environments in which the decision-making process is embedded [11]. We argue that the cultural and structural factors provide an additional layer of explanation of the current Czech energy policy as well as shed some light on more general questions such as: In a strongly asymmetric energy/economy relationship, why would the smaller country pursue energy policy

* Corresponding author at: International Institute of Political Science, Faculty of Social Studies of Masaryk University, Joštova 10, 602 00, Brno, Czechia.
E-mail addresses: osicka@mail.muni.cz (J. Osička), cernoch@mail.muni.cz (F. Černoch).

http://dx.doi.org/10.1016/j.erss.2017.02.006
2214-6296/

that fundamentally diverges from that of the larger country? And why would a mid-sized European country lock itself in an energy policy that could eventually become incompatible with the regional and European market environments?

2. Strategic culture

The strategic culture concept was formulated by Jack Snyder in his 1977 paper on the specific features of the Soviet approach to strategic thought, in which he suggested that the American notions of limited nuclear war and intrawar deterrence may not be shared by the Soviet decision makers ([5,6]: ii). The idea that there might be alternative cognitive frameworks related to strategic decision-making, questioned the very basis of American thinking about national security – the assumption that there is a single, universal strategic rationality, which is adopted by any self-aware and perceptive actor, derived in the 1960s from abstract game theory by Thomas Schelling [12] ([13]: 3).

Snyder himself sees strategic culture as "*the sum total of ideas, conditioned emotional responses, and patterns of habitual behavior that members of a national strategic community have acquired through instruction or imitation and share with each other with regard to nuclear strategy*" ([5,6]: 18) He emphasizes that the specific strategic thinking of an individual or a group is a result of a socialization process, to which the individuals are exposed once they join the decision-making community. Furthermore, despite attitudes of the community may change as a result of changes in technology and the international environment, new problems are not assessed objectively. Rather, they are seen through the perceptual lens provided by the strategic culture ([5,6]: v). The core of strategic culture lies therefore in two concepts: the culture, e. g. the ideas and thinking/behavior patterns that are shared and perpetuated among the members of a decision-making community; and the structure, e.g. the way the community is structured, which shapes the way the socialization process affects the community members. We argue that the conceptual framework of strategic culture can provide useful insights also into fields other than strategic thinking, including energy policy.

The idea of applying the framework to energy-related issues is not new. Dellecker and Gomart [8] dwell on the concept when examining the role of energy policy within the renewed geopolitical ambitions of the Russian Federation, Kim [9] assesses the South Korean strategic nuclear energy culture in relation to Korea's ambitions to shape the new international non-proliferation regime, and, most recently, Hadfield [10] introduces a sector-specific strategic energy culture that stems from the range of bilateral EU-Russia energy security policies, suggesting that strategic culture may even be shared between diverse decision-making communities provided they operate in close contact. With this paper we intend to broaden the strategic culture-based energy literature by using the framework to introduce a non-techno-economical explanation for the profoundly pro-nuclear energy policy of the Czech Republic.

3. Nuclear energy in the Czech Republic

In the former Czechoslovakia, energy emerged as a national policy issue shortly after World War II in relation to the coal industry restructuring. As domestic coal production had mostly fueled the military industry (over which the Germans had taken control during the War), the postwar state energy strategy focused on optimization of coal reserves development and on establishing supply lines for the centrally planned development of heavy industry. Already in the 1950s it became apparent that coal alone could not provide enough power for booming industry, and the decision-makers started searching for additional sources of energy. The country's tradition in uranium mining (see for example [14]) and advanced technological know-how made the country capable of manufacturing most of a nuclear plant's components. These were among the main reasons for developing nuclear energy as an addition to the coal-based generation portfolio (For more details see [15]: 116–123). Since Czechoslovak exports represented the backbone of the Soviet uranium supply, the Soviet Union was keen to assist Czechoslovakia with designing and building the new units. The first result of this cooperation was the A-1 plant. Its construction commenced in 1958 and in 1972 it came on line ([16]: 245–246). The cooperation then took off substantially as 24 reactor units were envisaged for the 1979–2010 period ([17]: 65). By 1991, when the Soviet Union collapsed, eight of them were completed: four units in Slovak Jaslovské Bohunice and another four in Czech Dukovany. Another eight were under construction: four in Slovak Mochovce and four in Czech Temelín [18]. Temelín's third and fourth reactor units, which were in the planning stage, were cancelled as early as 1990 and a debate over whether to write off the growing sunk costs or finish the construction of the first and second units accompanied each government until their grid connection in 2000 and 2003 respectively ([16]: 249–250). Already in 2004, the State Energy Policy document envisaged building another two or more large reactors, which started the discussion about further development of the nuclear sector that has continued ever since [19].

4. Cultural factors

In this section, we introduce three important cultural factors influencing the Czech energy policy articulation: the importance of energy self-sufficiency, the image of the external enemy, and the role that the issue of nuclear waste occupies in the Czech energy discourse.

4.1. Self-sufficiency as the core concept

The concept of self-sufficiency has played an important role throughout the 1990s' debate over the Temelín NPP completion. The idea of importing electricity is barely acceptable for 90% of Czech citizens [20] and this feeling is widely shared among the decision-makers. The most recent official documents such as the SEPU present "energy security" and "energy self-sufficiency" as interchangeable terms, even though its main line of reasoning is derived from the works of ENTSO-E which, instead of self-sufficiency, praises generation adequacy combined with trade-facilitating cross-border interconnections as a means of fostering security of supply [21]. Interestingly, the Update's Supplementary Analytical Material, in a rather Freudian manner, accidentally replaces "competitiveness" with "self-sufficiency" in a standard triangle depiction of energy policy goals (security, competitiveness, sustainability) ([22]: 8).

It is not the consensus on self-sufficiency that makes the Czech Republic unique – the vast majority of any state's citizens would probably support their state's self-sufficiency for any form of production. Rather, it is the idea that nuclear energy ranks among preferred domestic sources which makes the country unique. Despite the fact that Czech companies do not participate in the nuclear power's front cycle anymore and the options for nuclear fuel diversification are rather limited [23], the perception of nuclear as a domestic source remains an integral and unchallenged part of the Czech energy discourse. There are three reasons that could explain this perception. First, the technological characteristics of the nuclear energy front cycle make nuclear fuel an engineering product rather than a natural gas-like energy commodity ([24]: 487–491). Furthermore, its energy density allows

stockpiling, which significantly reduces a country's short-term sensitivity to any supply disruptions, making the nuclear fuel imports less of a security challenge. Second, the Czech Republic/Czechoslovakia ranked among 10 largest producers of uranium ore in the 1945–2007 period [25]. Most of the produced uranium was transferred to the Soviet Union/Russia, where the fuel cells were fabricated. Hence, the Czech nuclear industry emerged and developed as nearly self-sufficient, combining domestically-produced uranium with contracted processing and manufacturing services. Third, the fact that the Czechoslovak/Czech industry in fact manufactured many of the A-1 reactor unit's key components as well as participated significantly on the units that followed [26,18] may give an impression that nuclear power plants belong among the Czech technological know-how, making them *domestically accessible*.

4.2. External enemy

The discussion over completion of the Temelín NPP continued long after the 1993 Government decision to go on with the project. Throughout the 1990s, energy experts from the industry, academia and non-governmental sector alike voiced their concerns about the profitability of the project and some even questioned its very necessity (See for example [27]: 129, [28]). As a result of construction delays and cost overruns the public support for further development of nuclear power fell from the usual 60–70% to just 47% in the late 1990s [29]. The Government was then forced to reconfirm the decision about the plant's completion in 1999. In 2000, when the first unit was finally about to come on line, Austria and Germany launched a series of protests against the plant's start up. The German Government suggested postponing it while the Austrians pushed for a complete abandonment of the plant, at one point threating to block Czech entry to the EU. Meanwhile, the protesters from Austria blocked the border crossings between the two countries [30]. These protests yielded after concessions regarding the internationalization of the Czech plants' safety control ([31]: 199), but arguably brought along one side effect as well: a mobilization of support for nuclear energy among the Czech population. The idea of the Austrians and Germans (historical relations with whom they have a troubled history) questioning their engineering prowess and depriving them of the highly desired EU membership, was for many Czechs difficult to accept. In 2000–2001, the public support for nuclear energy returned to the 60–70% level [29], arguably as a result of the first Temelín unit coming on line and the bad public image of the foreign statesmen and protesters who tried to prevent it from happening. This experience has been partially renewed after the 2011 "Atomausstieg" decision in Germany. The Czech energy industry insiders, traditionally rather skeptical about renewable energy, have labelled the German decision as "impulsive" and/or "emotional" and praised the "rational thinking" that takes place in Czech energy decision-making ([32,33]; examples include [34,35]; for a dissenting view see [36]). The dominant narrative about the German Energiewende at Czech energy conferences, such as the Czech Energy Congress of 2013, has been that these impulsive German decisions pose a threat for the stability and functioning of the regional market [33]. And so the German anti-nuclear policy was once again considered as a destabilizing factor for the Czech energy industry and its nuclear ambitions.

4.3. Nuclear waste as a non-issue

In many developed countries it used to be the combination of power plant safety and the nuclear waste issue that was driving the anti-nuclear reasoning. In the Czech Republic, however, nuclear waste is perceived as a purely technical issue, something similar to the front end of the fuel cycle and consequently as something that the responsible engineers should be in charge of. The 2008 Eurobarometer study on nuclear energy confirms this assumption, reporting that along with the Lithuanians and Slovaks, the Czechs in particular seem to be supportive of the idea that responsible authorities should be left to decide, in the event of a disposal site for radioactive waste being built in the respondents' locality ([37]: 40). In the Czech case the responsible authorities are the Ministry of trade and industry, which established a special agency for localizing the future geological repository. The Radioactive Waste Repository Agency (RAWRA), as it is called, is now deeply immersed in an exhausting, more than 20 year long negotiation process with ca. 50 municipalities located in seven localities whose geology is considered as suitable for the project. The Ministers, whose time in office is limited (two years on average), often refrain from taking major steps in the uneasy task of seeking compromise with the municipalities and leave the agenda on RAWRA. The overall picture therefore seems to be of people leaving the agenda to the decision makers, who, in turn, leave it to RAWRA. The agency, however, has only limited competencies in terms of policy making. As a result, the nuclear waste discourse exists separately from the (nuclear) energy discourse. Nuclear waste is considered an issue that needs to be tackled anyway, since it *already exists*, and as such there is no need for it to be taken into consideration when drafting *new* energy policy. The resulting absence of nuclear waste in the energy policy discourse makes nuclear an environmentally appealing alternative to polluting coal. Such a view is supported by many decision-makers (for example [38,39]) and the majority of the population: in a 2009 poll, 51% of respondents were found to support nuclear power as the dominant source of electricity in 2030. The renewables followed with 36%, and only 13% of respondents supported coal or natural gas. Interestingly, even among the Green party voters, a staggering 41% supported the nuclear over the renewables and other sources [40].

5. Structural factors

5.1. Path dependence

Path dependence, one of the main characteristics of the energy industry in general, is especially traceable in the energy industries of the Central and Eastern European countries which underwent a democratic transition in the early 1990s ([15]: 342–343; [41]: 911–912). As a legacy of the command economy, in which economic, social and environmental costs of energy production were of secondary concern, the Czech energy industry has been traditionally governed by technicians. Technicians have also been among the most represented professionals in the decision-making bodies as the decision-makers usually recruited directly from the industry. As a result, Czech energy policy has traditionally been decided upon by a closed, technically-oriented community and there has been very little or no public discussion about the energy issues whatsoever [32]. Moreover, the decision-making structure tends to reproduce itself as it is generally believed that there need to be people who understand the technical setting of the current electricity generation portfolio among the decision-makers. The empirical evidence seems to support that assumption: in 2015, two of the top fifteen representatives of the Ministry of Trade and Industry's Energy Section graduated from the nuclear energy study programs. Another telling example is the energy policy articulation of the second largest coalition party – ANO 2011. The party has had its energy policy formulated by Jiří Tyc, a former NPP Temelín technician, a founder of a pro-nuclear NGO, and the CEO of the ENERGOSERVIS company (part of the ČEZ group) [42]. Since a person's decisions are influenced by their background and identity, the strong representation of nuclear energy insiders in the key decision-making and

policy-articulating bodies undoubtedly leads to actions and strategies being formulated from, or at least strongly influenced by, the nuclear industry perspective.

5.2. Vested interests

The power industry in the Czech Republic is dominated by the ČEZ group, which ranks among the ten largest utilities in Europe in terms of installed capacity. ČEZ owns and operates 75% of the Czech generation capacity, including the country's two nuclear power plants [43]. According to The Economist, being rather a big company in a rather small country makes it unusually powerful, even by the standards of former monopolies such as EDF in France [44].

Despite much having been written about ČEZ actively influencing Czech politics (see for example The Economist [44], Bursík [32]; Zatloukal [45]; and a certain indication could also be the fact that the company's Wikipedia entry features a chapter titled "Influence on politics" [51]), the idea of ČEZ being in control of the country's energy policy would probably be a bit far-fetched. However, just the simple fact that the state is the company's major shareholder, places the decision makers on a thin ice. The state energy officials are used to checking every piece of legislation for the effects it might have on ČEZ. Both formal and informal consultation between civil servants and the company representatives take place on a regular basis as this is considered mutually beneficial: ČEZ naturally lobbies for favorable legislation and the state officials gain access to otherwise inaccessible information obtained by the company's business intelligence. The statement by the Minister of Finance and ANO 2011 leader, Andrej Babiš, on the decision to breach the so-called "territorial ecological mining limits" and continue with opencast coal production in North-Western regions, gives a certain indication of this practice: "Our political movement and I have finally decided to trust the analysis of the semi-state owned company ČEZ which expects that the coal supply for small consumers and heating plants will be in danger as early as in 2022" [46]. In many cases, however, it does not end with consultations. The former Minister of Environment, Martin Bursík (Green Party) adds: "ČEZ's external relations unit and a top lobby group have a great impact on public opinion and it even formulates many of the country's energy laws. In terms of influence, its backers have a majority in the government as well as in both chambers of parliament" [32].

It can be stated that if not directly cultivated by the ČEZ position, Czech decision-making about energy always at least takes into the consideration the company's interests. And those interests obviously converge in maintaining its profitable business model, which is based on low variable cost plants such as the nuclear, hydro, and recently-refurbished coal units. Importantly, in the case of nuclear, ČEZ does not need to worry about the immense capital costs that otherwise come along with the plants' construction. ČEZ inherited the publicly-financed Dukovany plant and received state guarantees for the loans used to complete the Temelín plant, which made their operation extremely profitable. The plants were consequently nick-named "money printers" by some industry insiders [47]. As the potential for hydropower is already exhausted and production of coal is expected to decline ([3]: 18, 106), nuclear remains the only pillar of the company's business model that could be further developed. However, since ČEZ is unwilling to build the new reactor units on its own under the current and expected market conditions, the question of state aid comes to the fore once again [48]. With guarantees envisaged by the National Action Plan for Nuclear Energy Development in the Czech Republic: a Contract-for-Difference for 35 years with the strike price between 66 and 99 eur/MWh ([49]: 71), ČEZ would be able to lock in its business model at least until 2067, provided that the new units come online in 2032–2033, as envisaged by the SEPU. There is no reason not to think that ČEZ pulls all the strings in achieving that.

6. Conclusions and policy implications

We employed Jack Snyder's concept of strategic culture in order to provide a deeper understanding of the drivers behind Czech pro-nuclear energy policy. In accordance with the concept, we identified and introduced two sets of the drivers: cultural and structural. It can be concluded that the cultural drivers are based on two misconceptions that make the nuclear option seem attractive. First, the idea of nuclear energy as a domestic source of power, which capitalizes on Czech uranium mining history and the country's advanced technological base, and supports popular support for energy self-sufficiency. Second, the idea of nuclear waste as an issue to be handled exclusively by the dedicated RAWRA agency and the municipalities considered as hosts to the envisaged geological repository, which effectively pushes the nuclear waste issue outside of the overall (nuclear) energy discourse in the Czech Republic. The separation of the two discourses results in the perception of nuclear energy as an environmentally-sound alternative to the coal, which in turn alienates the Czech position from the ones held by neighboring Austria and Germany. The German anti-nuclear policy is then viewed as biased/irrational/emotional and potentially endangering the regional supply system as a whole. In the Czech discourse this perceived threat resonates with the events of the late 1990s, when the "nuclear-fearing" Austrians and Germans questioned the Czech technological abilities in relation to the NPP Temelín completion, which at the end of the day stimulated the national consensus on nuclear energy and eased the country's hangover from the plant's delays and cost overruns. The cultural factors then act as enabling conditions for the structural factors to actually transform the pro-nuclear culture into specific policies. The most important factors seem to be the sheer amount of nuclear industry insiders, who take part in the decision-making process and who bring the nuclear energy perspective to the fore of that process; as well as the vested interests of the influential state-owned company ČEZ, the business model on which the survival of nuclear energy depends in the country.

The recent developments in the regional electricity market and the ongoing Energiewende process put the Czech energy strategy on trial. The preference of capital-intensive and inflexible nuclear power plants, and the overall construction process which is expected to take between 17 and 22 years ([49]: 68), hardly seem compatible with the fast-changing environment the market finds itself in at the moment. Moreover, as ČEZ is unwilling to finance the new reactor units on its own, the Government needs to find alternative ways of financing them if it wants to fulfill the plans envisaged by the SEPU. However, any sort of state aid would be controversial as it potentially contradicts the European regulations [50], and as it would cause Czech taxpayers or electricity consumers to end up subsidizing the electricity prices for the whole region since the electricity produced in the Czech Republic can be freely traded elsewhere ([4]: 116). The future of Czech energy policy would furthermore provide two important signals about the ongoing macro-trends in the European energy industry. First, it could reveal the limits of the EU Member States' right to decide their own energy mix as embedded in the Lisbon Treaty. Being firmly entangled with the German market, which is governed by an anti-nuclear energy policy, the ability of the Czech decision-makers to push an independent, pro-nuclear policy is questioned. The future developments will therefore show whether two essentially contradictory energy policies can coexist within a closely interconnected region. Second, it will be important for the European nuclear industry as a whole. As the Czech socio-political environment remains very

favorable for the industry's further development, a failure to build the envisaged units would certainly undermine its future prospects.

References

[1] P. Joskow, J.E. Parsons, The future of nuclear power after Fukushima, Econ. Energy Environ. Policy 1 (2) (2012), http://dx.doi.org/10.5547/2160-5890.1.2.7.

[2] EurActiv, Nová energetická koncepce ČR spatří světlo světa za tři měsíce, 2012, Retrieved from: http://euractiv.cz/clanky/energetika/nova-energeticka-koncepce-cr-spatri-svetlo-sveta-za-tri-mesice-009921/.

[3] Ministry of Industry and Trade, State Energy Policy Update, 2015, Retrieved from: http://download.mpo.cz/get/52841/60946/636123/priloha001.pdf.

[4] F. Černoch, J. Osička, R. Ach-Hübner, B. Dančák, Energiewende: Current State, Future Development and the Consequences for the Czech Republic, Masaryk University, Brno, 2015.

[5] J. Snyder, The Soviet Strategic Culture: Implications for Nuclear Options, Rand Corporation, 1977.

[6] J. Snyder, The Soviet Strategic Culture. Implications for Limited Nuclear Operations, RAND, Santa Monica, 1977, Retrieved from: http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA046124.

[7] D. Howlett, The Future of Strategic Culture, Defense Threat Reduction Agency, 2006, Retrieved from: https://fas. org/irp/agency/dod/dtra/stratcult-future.pdf.

[8] A. Dellecker, T. Gomart, Russian Energy Security and Foreign Policy, Routledge, London, 2011.

[9] T. Kim, Strategic culture and energy security policy of South Korea: the case of nuclear energy, Proceedings of the 18th Pacific Basin Nuclear Conference (2012).

[10] A. Hadfield, EU-Russia strategic energy culture: progressive convergence or regressive dilemma? Geopolitics 21 (4) (2016) 779–798, http://dx.doi.org/10.1080/14650045.2016.1219342.

[11] P. Ocelík, F. Černoch, Konstruktivismus a energetická bezpečnost v mezinárodních vztazích, Masaryk University, Brno, 2012.

[12] T.C. Schelling, The Strategy of Conflict, Harvard, Harvard University, 1960.

[13] J. Snyder, The concept of strategic culture: Caveat Emptor, in: C.G. Jacobsen (Ed.), Strategic Power: USA/USSR, Palgrave Macmillan, New York, 1990.

[14] M. Sivek, P. Kavina, J. Jirásek, V. Malečková, Factors influencing the selection of the past and future strategies for electricity generation in the Czech Republic, Energy Policy 48 (September) (2012) 650–656, http://dx.doi.org/10.1016/j.enpol.2012.05.073.

[15] M. Jirušek, T. Vlček, H. Koďousková, W. Robinson Roger, A. Leshchenko, F. Černoch, L. Lehotský, V. Zapletalová, Energy Security in Central and Eastern Europe and the Operations of Russian State-Owned Energy Enterprises, Masaryk University, Brno, 2015.

[16] T. Vlček, F. Černoch, Energetický sektor České republiky, Masaryk University, Brno, 2012.

[17] M. Kubín, Proměny české energetiky, Český svaz zaměstnavatelů v energetice, Praha, 2009.

[18] WNA, Nuclear Power in Slovakia, 2016, Retrieved from: http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/slovakia.aspx.

[19] WNA, Nuclear Power in the Czech Republic, 2016, Retrieved from: http://www.world-nuclear.org/information-library/country-profiles/countries-a-f/czech-republic.aspx.

[20] STEM, Občané požadují energetickou soběstačnost státu, 2007, Retrieved from: https://www.stem.cz/obcane-pozaduji-energetickou-sobestacnost-statu/.

[21] ENTSO-E, Scenario Outlook and Adequacy Forecast 2014–2030, 2014, Retrieved from: https://www.entsoe.eu/Documents/TYNDP%20documents/TYNDP%202014/140602_SOAF%202014-2030.pdf.

[22] Ministry of Industry and Trade, Supplementary Analytical Material to the State Energy Policy Update (Doplňující analytický materiál ke Státní energetické koncepci), 2015, Retrieved from: http://download.mpo.cz/get/52826/60155/632396/priloha003. pdf.

[23] T. Vlček, Critical assessment of diversification of nuclear fuel for the operating VVER reactors in the EU, Energy Strategy Rev. 13–14 (November) (2016) 77–85, http://dx.doi.org/10.1016/j.esr.2016.08.006.

[24] T. Vlček, M. Jirušek, J.1 Henderson, Risk assessment in construction process in nuclear sector within the Central and Eastern Europe, Int. J. Energy Econ. Policy 5 (2) (2015) 482–493.

[25] E. Majling, Historie a současnost těžby uranu v ČR, 2015, Retrieved from: http://oenergetice.cz/ostatni/historie-a-soucasnost-tezby-uranu-v-cr/.

[26] M. Štubňa, A. Pekár, J. Morávek, M. Špirko, Decommissioning Project of Bohunice A1 NPP, Office of Scientific and Technical Information, U. S. Department of Energy, 2002, Retrieved from: http://www.wmsym.org/archives/2002/Proceedings/22/141.pdf.

[27] T. Athanasiou, Divided Planet: The Ecology of Rich and Poor, University of Georgia Press, 1998.

[28] Z. Hrubý, Závěrečná zpráva expertního týmu pro nezávislé posouzení projektu dostavby Jaderné elektrárny Temelín, 1998, Vláda ČR. Retrieved from: https://www.vlada.cz/cz/clenove-vlady/historie-minulych-vlad/!-zaverecna-zprava-dostavby-jaderne-elektrarny-temelin-2119/.

[29] STEM, Další rozvoj jaderné energetiky u nás podporuje stabilně 60% občanů, 2001, Retrieved from: https://www.stem.cz/dalsi-rozvoj-jaderne-energetiky-u-nas-podporuje-stabilne-60-obcanu/.

[30] R. Fawn, The Temelín nuclear power plant and the European Union in Austrian–Czech relations, Communist Post-Communist Stud. 39 (March (1)) (2006) 101–119, http://dx.doi.org/10.1016/j.postcomstud.2005.12.001.

[31] H. Böck, D. Drábová, The case of Temelín, in: R. Avenhaus, G. Sjöstedt (Eds.), Negotiated Risks: International Talks on Hazardous Issues, Springer, Berlin, 2009.

[32] M. Bursík, So There's No Critical Discourse About Energy-related Topics, Heinrich Boell Foundation, 2013, Retrieved from: https://www.boell.de/en/2013/04/25/so-theres-no-critical-discourse-about-energy-related-topics.

[33] J. Zilvar, 13. Energetický kongres –hrozba obnovitelných zdrojů konvenční energetice, TZB-info, 2013, Retrieved from: http://energetika.tzb-info.cz/9685-13-energeticky-kongres-hrozba-obnovitelnych-zdroju-konvencni-energetice.

[34] V. Wagner, Jaký bude vývoj energetiky, zvláště jaderné, po Fukušimě? Ekolist, 2011, Retrieved from: http://ekolist.cz/cz/publicistika/nazory-a-komentare/vladimir-wagner-jaky-bude-vyvoj-energetiky-zvlaste-jaderne-po-fukusime.

[35] P. Nejedlý, Obnovitelné zdroje: Němečtí subvenční rytíři a čeští solární baroni. FinMag, 2013, Retrieved from: http://finmag.penize.cz/ekonomika/268821-obnovitelne-zdroje-nemecti-subvencni-rytiri-a-cesti-solarni-baroni.

[36] D. Drábová, Němci mají ústup od jádra promyšlený [Interview], Atominfo, 2012, Retrieved from: http://atominfo.cz/2012/03/dana-drabova-nemci-maji-ustup-od-jadra-promysleny/.

[37] European Commission, Attitudes Towards Radioactive Waste, 2008, Retrieved from: http://ec.europa.eu/public_opinion/archives/ebs/ebs_297_en.pdf.

[38] J. Mládek, Schváleno. Jádro se na desetiletí stane hlavním zdrojem energie v Česku [Interview], 2015, E-15. Retrieved from: http://zpravy.e15. cz/byznys/prumysl-a-energetika/schvaleno-jadro-se-na-desetileti-stane-hlavnim-zdrojem-energie-v-cesku-1190213.

[39] L. Kovačovská, Jaderná energetika začíná být v Evropě sprosté slovo, říká česká náměstkyně pro energetiku [Interview], 2016, HlídacíPes. Retrieved from: http://hlidacipes.org/jaderna-energetika-zacina-byt-v-evrope-sproste-slovo-rika-ceska-namestkyne-pro-energetiku/.

[40] STEM, Energetické perspektivy Česka: soběstačnost a jádro, 2009, Retrieved from: https://www.stem.cz/wp-content/uploads/2015/12/1770_1175.pdf.

[41] T. Vlček, M. Jirušek, Behavioral determinants of Russian nuclear state-owned enterprises in Central and Eastern European region Int. J. Energy Econ. Policy 5 (4) (2015) 910–917.

[42] Česká televize, Babiš si dosazuje do dozorčích rad své lidi, zlobí se lidovci i opozice, 2014, Retrieved from: http://www.ceskatelevize.cz/ct24/domaci/1027680-babis-si-dosazuje-do-dozorcich-rad-sve-lidi-zlobi-se-lidovci-i-opozice.

[43] ČEZ, CEZ Group Introduction, 2017, Retrieved from: https://www.cez.cz/en/cez-group/cez-group.html.

[44] The Economist, No Minister, 2010, Retrieved from: http://www.economist.com/node/15869464.

[45] J. Zatloukal, Flaws in the Czech Political Culture, University of Oxford, Oxford, 2013, Retrieved from: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Flaws%20in%20the%20Czech%20political%20culture.pdf.

[46] A. Babiš, Prolomení limitů těžby uhlí v Severních Čechách akcie ČEZ příliš neovlivní [Interview], 2015, Patria online Retrieved from: https://www.patria.cz/zpravodajstvi/3034783/prolomeni-limitu-tezby-uhli-v-severnich-cechach-akcie-cez-prilis-neovlivni.html.

[47] J. Krásný, Výstavba a budoucnost jaderné energetiky v ČR. The Czech Parliament Seminar, The Future of the Czech Energy Industry organized by the Czech Social Democratic Party, 26. 1. 2016, 2016, Retrieved from: https://www.cssd.cz/data/files/20160530-2-vystavba-a-budoucnost-je-jaromir-krasny.pdf.

[48] I. Hlaváč, Jan Mládek: Nové bloky Temelín dostane, výstavba se ale nejspíš posune [Interview], 2014, Retrieved from: http://euractiv.cz/clanky/energetika/jan-mladek-nove-bloky-temelin-dostane-vystavba-se-ale-nejspis-posune-011428/#sthash.R4mDDpCV.dpuf.

[49] Ministry of Trade and Industry, National Action Plan for Nuclear Energy Development in the Czech Republic (Národní akční plán rozvoje jaderné energeticky v České republice), 2015, Retrieved from: download.mpo.cz/get/54251/61936/640148/priloha001.pdf.

[50] F. Černoch, V. Zapletalová, Hinkley point C: a new chance for nuclear power plant construction in central Europe? Energy Policy 83 (August) (2015) 165–168, http://dx.doi.org/10.1016/j.enpol.2015.04.002.

[51] Wikipedia, ČEZ: Influence on Politics, 2017, Retrieved from: https://en.wikipedia.org/wiki/%C4%8CEZ_Group#Influence_on_politics.