

4. Energy as international power: the case of Russian–Finnish energy trade

In this chapter, I will focus on energy power in action in the trans-border context. Geopolitical power sought by the Russian hydrocarbon culture relies on a similar discipline–reward apparatus as that used domestically by the oil- and gas-inspired geo-governmentality of Putin’s Russia. Then again, in the international setting we witness a much wider repertoire of strategies combining these alluring and coercive means. Russian–Finnish energy trade is an interesting case of energy power, because it leans on the soft approach and builds on goodwill. Although it is well-veiled and spoken of and performed indirectly, the coercive is still present even in this highly ‘neutral’ political atmosphere. Both strategies are an elementary part of the practices and discourses of the Russian hydrocarbon culture, yet one might think that the ‘nuclear diplomacy’ that has recently dominated the Russian–Finnish energy scene is a departure from hydrocarbons. I will demonstrate that the opposite is true.

ENERGY AS ‘BUSINESS ONLY’ AND ‘A WEAPON’

Since the mid-2000s, when oil prices rose steadily, President Putin consolidated his grip on power and a growing share of Russian oil production fell into the hands of the state, some scholars have begun to argue that Russia is emerging as an ‘energy superpower’ (Goldman 2008, pp. 7–10, 206–7; Rutland 2015; Smith Stegen 2011, p. 6506), especially in relation to the main buyers of its energy: the EU countries. ‘Energy superpower’ refers to a Great Power status that is gained not by traditional military means, but through a dominant position in global energy production and trade that enables the country to use its energy wealth as leverage for political and geopolitical aims. The argument claiming that Russia is moving towards this logic stems especially from three episodes in EU–Russia energy relations: in 2006, 2009 and 2014 Russia reduced its deliveries of gas in pipelines running through Ukraine,

which affected EU countries at the end of the pipeline. In addition, it evokes fears that the Russian energy giant Gazprom has started to acquire shares of national gas distribution companies in the territory of the EU and the former socialist states (Closson 2014). Europe could fall victim to the Russian spider web, where energy supply, transnational pipelines and distribution networks are governed by one country. As a matter of fact, as soon as Russia gained WTO membership the European Commission (2012) started to investigate whether Gazprom might be hindering competition in European gas markets. Basically, the issue here was the entanglement of Gazprom and the Russian state, and it demonstrates that the fear of Russia using energy as a political tool is real in Europe. Court rulings have recently compelled Gazprom to change its monopolistic pricing strategy and partly abandon ownerships it had in European gas distribution businesses. Despite these changes, there are fears that Russia is able to exert significant geopolitical and geoeconomic power in Europe via major gas pipeline infrastructures, such as Nord Stream I and II (Vihma and Wigell 2016).

Assessments regarding the importance of energy resources as part of security policy have varied according to changes in the relations between Russia and the European Union. After the break-up of the Soviet Union, energy and transport infrastructure was seen as an important element for promoting economic integration and interdependency (Aalto and Forsberg 2016). The situation changed at the turn of the millennium. The high market price of oil fuelled economic growth in Russia. The policy changes that accompanied reforms in the energy sector diverted state income to strategic projects designated by the Putin entourage. This included, for example, the construction of new oil export ports in the Gulf of Finland. The main idea was expressed in the Energy Strategy (Ministry of Energy RF 2003), according to which energy resources and control of energy flows are one kind of “geopolitical tool”.

The Russian leadership as well as the parastatal energy companies have argued, as have many European politicians and scholars (Kivinen 2012; Perovic 2009, p. 11), that Russia is only pursuing stable market relations and economic prosperity via energy exports and downstream businesses – energy is only business and driven by economic interests. For example, Rutland (2008, p. 209; see also Judge et al. 2016) argues that Russia’s ability to influence foreign states via energy relations has been exaggerated. The main argument is that Russia would not jeopardize its energy relations with the EU, its biggest customer, by using energy as a leverage for political goals. This notion stems from the belief that Russia is *more* dependent on rents derived from the EU energy markets

than EU member states are on Russian energy. On paper, when comparing EU imports (a third of which come from Russia) to Russian exports (two-thirds going to the EU), this is surely the case. In my view, this idea is also based on an outdated understanding of energy power. It looks at energy security via the loop of a hard energy weapon, failing to see the logic and effectiveness of the soft one. Moreover, I argue that this mainly European understanding of the interdependence within Russia–EU energy relations rests on false assumptions. Namely, interdependence can arise when parties are equal in size and power – and many think that the EU is equal to Russia in energy political terms. What this approach fails to take into account is the fact that the EU as an institution has *no* leverage via energy trade vis-à-vis Russia, as the EU does not buy a single barrel of oil, cubic metre of gas, tonne of coal or uranium from Russia. Russia has also used its leverage within the energy field and refused to negotiate energy trade issues with the EU. It is a fact that energy trade takes place between gigantic Russian state-owned companies and Europe’s mostly privately-owned energy companies, which are influential within individual EU member states but not throughout the EU. Thus, I argue that what we are witnessing in energy security terms in Europe is an institutional delusion that prevents us from seeing the power of geoeconomics of energy. As a result, the soft energy weapon is used, thus making it possible for Putin’s Russia to influence the EU’s foreign policies. A concrete example of this divide and rule strategy is the fact that the EU still lacks a common voice in energy policy. This is despite recent efforts, driven by the war in Ukraine and Russia’s aggressive behaviour, to revive the original consensus potential of common energy policy via the EU Energy Union, as was the case with the predecessor of the EU, the European Coal and Steel Community of post-war Europe.

The Russian domestic discourse on ‘energy superpower’ has grown stronger ever since its onset (cf. Grib 2009, p. 7). Since the early 2000s, when energy exports greatly increased Russian revenues, the Russian government has been building its national identity on a foundation of energy prosperity and military strength. Energy money has trickled down to enhance the population’s well-being and, to an even greater extent, has been channelled to the military. This has made Putin’s government popular. Energy prosperity has allowed Russia to emphasize its special status and helped detach it from the framework of European mutual dependence and the institutional integration promoted by the EU. The potential and actual attempts to increase Russia’s political bargaining power through energy in relation to European countries are viewed as plausible, and even inevitable. In the frame of an ‘energy superpower’, Russia has a dominant position in comparison to its European partners,

and the country has presented itself as a ‘benefactor’ in relation to its neighbours, such as Ukraine. From Russia’s perspective, the country has supported the economies of Ukraine and other former Soviet states for years in the form of affordable energy prices. Especially during the first years of the Ukrainian war, in 2014 and 2015, the Russian identity became even more closely linked to energy and Russian state-controlled media was saturated with the story that the West and particularly Ukraine are so chronically dependent on Russian hydrocarbons and uranium that they have been brought to their knees before the all-mighty Energy Superpower Russia. Putin’s government and the Russian people have interpreted Europe’s tepid response to the occupation of the Crimea as a sign of European weakness. This is seen as evidence that Russia is an energy superpower in both speeches and actions.

Today’s Russia, with no significant international debt on its shoulders and an accumulated energy wealth as its muscle, has the financial potential to act as an energy superpower, and use soft means to influence European energy and thus also foreign policies. This potential is verified by historical practices: Russia has used uncertainties and irregularities related to price negotiations as well as pivotal infrastructures in the energy sector to link decision-makers more closely to the Kremlin’s sphere of influence or direct control (see Balmaceda 2013). Russia’s ability to use energy as leverage is judged not only by the potential to carry out such manoeuvres, but by the effects of this enterprise. In this respect, the analysis made by Smith Stegen (2011; Table 4.1) on Russia’s ability to use the energy weapon, in other words aiming for and gaining political concessions by using energy supply as leverage on energy-dependent countries, goes a step further than previous studies. Her main argument is that although Russia’s energy superpower status has previously been evaluated from the viewpoint of the state’s ability to control energy resources and transit routes as well as the fact that the state must try to use energy resources to further its political objectives, the effects of this enterprise have been neglected. She proposes that we focus our analyses on the reactions of energy-dependent governments to the threats, price hikes or cut-offs orchestrated by Russian actors. In the case of oil and gas trade between Russia and the EU, Russia’s potential to behave as an energy superpower not only exists, but has been played out. Smith Stegen (2011, pp. 6509–10) shows that in the field of gas trade the effect has been more pronounced than in oil, despite the fact that attempts to use the energy weapon have been made in both energy fields during the new Russian era after 1991.

Table 4.1 Energy weapon framework (Smith Stegen, 2011)

Energy resources in country
<ol style="list-style-type: none"> 1. State consolidation of resources 2. State control over transit routes 3. Implementation of threats, price hikes, disruptions 4. Target state acquiescence and concessions
Energy resources as political leverage

The model strives to expand the analysis to any case in which an energy export country attempts to use the resources and flows that it controls to influence the political behaviour of a country purchasing energy. However, the metaphor of the ‘energy weapon’ concept is misleading. This is because Russia has not used tough means of influence in the context of Western Europe. For example, if Russia’s energy strategy vis-à-vis Ukraine can be defined as a *hard energy weapon* (‘squeezing flow’), in Finland – as in most EU countries – Russia’s foreign energy strategy resembles a *soft energy weapon* (‘lubricating flow’). However, the analytical model applies just as well to contexts in which an explicit ‘stick’ is not evident. These cases show how influence is built in a positive manner, which is a far cry from a weapon. Russia has skilfully used this tactic in Western Europe and the EU (see Högselius 2013). From the Finnish perspective, this is also a key method of exerting influence via energy. The question is not whether Russia can use the ‘hard’ energy weapon, because this is a possibility that cannot be ruled out. However, as there have been no problems in energy trade and flows, Russia has preferred more covert measures like pricing and contracts.

The attractiveness of the energy sector as a channel of influence is the sum of many things. The energy sector plays a key role with regard to security of supply for modern societies. The importance of the sector as a channel of influence can be attributed to the fact that this is a matter of dependency relationships built over decades and to the central role that the Russian government plays in the Russian energy sector. In Europe, energy dependency has been seen as a symmetric alignment in which both the EU and Russia are dependent on the continuation of trade relations (Goldthau and Sitter 2015). As I argue above, this does not apply to the situation with individual countries or companies, which can be subject to occasional or systemic use of the ‘energy weapon’. In the following I will use Smith Stegen’s model to assess Russian energy trade with Finland. The analysis focuses on factors contributing to and/or

undermining a positive interdependency created via energy trade between Russia and Finland.

RUSSIA'S ENERGY AS POLITICAL LEVERAGE IN FINLAND

In Finland, 45 per cent of the energy consumed is of Russian origin while 71 per cent of imported energy comes from Russia. Although renewable energy accounts for one-third of the energy palette and self-sufficiency is high on a European scale, nearly all of Finland's fossil and nuclear fuel comes from Russia (see Table 4.2). Thus, the energy relationship between Finland and Russia can be described as asymmetric. With the exception of electricity, Finland accounts for a small percentage of Russia's energy exports while imported Russian energy, excluding electricity, represents a large share of total imports in Finland. The dependency of Finland's energy sector on Russian hydrocarbons, nuclear power technology and nuclear fuel exports creates a possibility for leverage.

Table 4.2 Finland's dependency on Russia by energy form (Statistics Finland 2017)

Energy form	Imports from Russia as share of total imports	Amount	Share of Russian exports by energy form
Coal	88%	2.5 mill. t.	3%
Oil	89%	11 mill. t.	4%
Refined products	80%	3 mill. t.	n.a.
Natural gas	100%	2.4 bcm	2.5%
Uranium	71%	38 t.	n.a.
Biomass	70%	127,000 t.	n.a.
Electricity	7%	5TWh	80%

Finland is aware of its energy dependency on Russia, but considers it manageable. At the root of this thinking is a worldview based on liberal values, democracy and free trade that together enable positive interdependency and cooperation. However, increased global competition for economic and natural resources presents challenges to previous policy assumptions. Currently, economy and trade are even more susceptible to the pursuit of other (foreign) policy objectives (Goldthau and

Sitter 2015; Wigell and Vihma 2016); influence produced through trade is based on the dependency relationships created through commodity flows, economic benefits and political ‘goodwill’ – and the threat of its absence.

Consequently, security of supply thinking based on a ‘turn off the taps’ scenario has become an inadequate frame. Instead, the analysis of energy security should consider how energy trade practices, flows and policies have affected Finland’s energy policy and understanding of energy security. Accordingly, the set of measures available to influence the energy policy of the target country vary across individual sectors (oil, gas, uranium/nuclear power, coal, bioenergy), but more importantly, they go beyond a single sector. In other words, the build-up of energy leverage – influence on the target country’s energy policy – is one element of the asymmetric measures aimed at furthering Russia’s national security interests. Thus, the Russian energy sector is seen as an integral part of the state’s strategic resources rather than an autonomous actor (e.g. Ministry of Energy RF 2009, 2017; Strategiya 2015). Therefore, the Russian leadership looks at its trade partners with a strategic geoeconomic perspective: trade policy is executed with comprehensive state interests in mind. This entails that even if Gazprom strikes a gas trade deal or Rosneft contracts oil with the Finnish state majority-owned companies Gasum and Neste respectively, we cannot know precisely how choices made within these sectors reflect and influence decisions in, for example, the nuclear business. It may well be that Russia wants the outside world to think that all its decisions are centrally made and governed, despite the fact that in reality we can easily find scattered interests and decision-making within the Russian energy sector (e.g. Kivinen 2012). However, when looking at economically and symbolically important projects for the Putin regime, like the Rosatom–Fennovoima nuclear deal, it is more likely that the actions of Russia are closer to the ambitions stated in central strategic documents and also in line with Russia’s foreign and security policy thinking: foreign relations are built and maintained via comprehensive strategic action. This aspect is not always understood in the energy policy discussion in Finland, and elsewhere in Western Europe, where the major energy companies operate on the basis of market logic as opposed to the logic of state security interests.

It can be even argued that the responsibility for defining Finland’s energy security has been partly turned over to the corporate world. Finland’s significant energy dependency on Russia has been justified by the economic profitability of this trade for both parties, without paying attention to what is expected from Finland in return for low prices and favourable provisions. However, the state of Finland is, through

many different links, tied to these long-term, economic dependencies. Examples of these include Neste Ltd, a state majority-owned company and an important international hub for Russian oil and gas flows, and Fortum Ltd, via complex Finnish and Russian nuclear power and gas industry cross-ownerships and partial ownership in the Nord Stream II project. This puts pressure on ownership steering in companies where the state is the majority owner. Controlling these overall impacts would require a systematic approach and sensitivity towards geoeconomic issues, yet thus far Finland has not developed such a strategic approach to energy.

The above discussion of Finland's energy security serves as an introduction to the analysis below, which examines the processes of energy trade between Finland and Russia via political-economic influence and dependencies. Table 4.3 presents the factors that appear to be key for each energy sector from the perspective of our analysis (see Sipilä et al. 2017), which is based on detailed and concrete cases related to energy companies and actors. The table concludes with an important summary of the significance and logic of Finland's overall dependence, which is the foundation on which Finnish–Russian energy cooperation and the mainstream Finnish understanding of energy security has developed.

The Finnish energy security discussion often refers to the fact that all energy flows imported from Russia could be replaced. In truth, they could be replaced in a crisis situation but only *hypothetically* in normal conditions. In a business-as-usual situation, factors that maintain dependency limit the choices. Russia is well aware of this. Thus, Finland's manoeuvrability is in many ways more limited than in a decentralized energy procurement scenario, where the market is not dominated by a single energy supplier. Russia could compensate for this trade – and the subsequent loss of revenues from Finland – but for Finland it would be very expensive. Under normal conditions, it is impossible to imagine a situation in which Finland or the entire EU region could simultaneously purchase its oil, gas, coal, uranium and electricity from somewhere else. The price would inevitably rise and company profits would decrease. It is extremely difficult to prove what this would really mean in terms of freedom of choice regarding decisions on economic, energy, environmental and foreign policy made by Finland or the EU; what decisions have been made or not made because of these dependencies.

Table 4.3 Russia's methods of influencing Finland via energy trade

	Phase 1 'Russia's state ownerships'	Phase 2 'Russia's control of flows'	Phase 3 'Russia's measures'	Phase 4 'Finland's reactions'
Gas	Controlled by the Russian state via Gazprom ownership	Export controlled by Gazprom	Low pricing used to maintain customer relationships and 'goodwill'	Share of gas reduced in the energy palette and new gas infrastructure aims at decentralization, but Neste's flows remain unchanged, difficult to replace
Oil	Russian state owns 2/3 of oil production	State-owned Transneft exports 85% of oil	Oil exports to Finland have remained high mainly for geoeconomic reasons	Oil imports from Russia are high (80–90%) due to price, refining and infrastructure inertia, which have prevented decentralization
Nuclear power	State-owned Rosatom owns the entire chain	Rosatom controls the chain	Share of Russian uranium is high due to pricing and power plant customer relationships; the plant and electricity are provided for Fennovoima at a low price	Despite obvious foreign and security policy links, nuclear cooperation and trade is defined using economic concepts; a major crisis in EU–Russia relations did not change Finland's stand on Russian nuclear power
Bioenergy	Russia's bioenergy sector is in private hands; a large number of actors	Bioenergy and wood exports under state control, but also many private actors	Bioenergy trade indirectly politicized (export policy), but decoupled from direct Russian state interests	Reactions directly related to bioenergy cannot be identified; potentially a lack of desire to increase imports due to Finland's own forest sector interests
Joint impact of overall dependence	The majority of Russian actors in Russia–Finland energy trade are state-owned	The majority of flows in Russia–Finland energy trade are controlled by the Russian state	Pricing, good terms and minimizing politicization ensure continuity in the energy trade, which is important for relations between Finland and Russia	Finland has the need to define its energy cooperation with Russia using economic concepts and underline its importance to good relations, in which case a 70% import dependency level is not seen as a problem but as a sign of trust

Assessing the political consequences of this form of dependency is not popular in the EU; energy-security thinking is dominated by the security of supply, thus a fear of the ‘hard energy weapon’ (cf. Szulecki et al. 2016). However difficult it is to ponder the possible political ramifications of economic dependence, it needs to be done for the sake of future *symmetric* interdependency between the EU and Russia. For example, one essential question involves determining how the Fennovoima–Rosatom nuclear power plant (NPP) project influenced Finland’s position concerning the focus of EU sanctions set after Russia waged a proxy war in Ukraine; nuclear ‘carrot projects’ provided by Rosatom – two of which are under construction in the EU space, in Finland and Hungary (Aalto et al. 2017) – could have affected the focus of sanctions set for Russia. Specifically, it is odd that the Russian nuclear sector, which produces uranium, power plants and electricity as well as nuclear weapons and is thus linked organically to Russia’s violence in Ukraine, fully escaped Western sanctions even though oil and gas production was targeted. In light of this, the fact that Finland’s dependency on Russian energy has grown – imports from Russia increased from 65 per cent in 2015 to 71 per cent in 2016 – since the Ukrainian war is a very interesting development. Regardless of whether this was dictated by the energy economy or not, it can be interpreted as a sign of trust in foreign policy: while other Western countries ‘politicize’ energy trade, Finland is a ‘rational’ actor that does not mix the economy with security policy.

Ensuring the continuity of energy trade is, as such, already an important part of maintaining good relations with Russia, but the economic advantages formed via trade further strengthen this link. In a static world not threatened by climate change, this would not be an energy policy problem. For Finland (and the rest of the EU countries) which is pursuing an energy transition towards a decarbonized society, it may be difficult to break these dependencies because the current flows of non-renewable energy produce major economic benefits for the country and its state-owned companies. Thus, it is the international effects and path dependencies of hydrocarbon culture in Putin’s Russia that hinder not only the energy transition within Russia, but also in the societies dependent on Russian energy, hydrocarbons and nuclear power. Energy produced via atomic fission is therefore simply one ‘branch’ of the Russian hydrocarbon culture, as nuclear power makes it possible to preserve the present political and economic strategy that is *not* aiming at decarbonization or decentralization. Vice versa, a significant share of wealth created by selling oil and gas on the international market is directed to the Russian nuclear sector (cf. Josephson 2019), to *both* of them. The possibility for Rosatom to offer NPPs, the ‘peaceful atom’, to

Finland and other countries at a low price is by and large made possible by hydrocarbon profits; calculations reflecting the sources of Russia's state revenues show that half of all funding for Rosatom's branch responsible for production of nuclear weapons – the 'bellicose atom' – is in fact covered by oil and gas sales.

CHERISHED NUCLEAR TRADE BREEDS PATH DEPENDENCIES: AN ANTITHESIS FOR DECARBONIZATION

Nuclear power has a special meaning for Russia, and from the Russian viewpoint nuclear cooperation is a top priority in terms of Finnish and Russian relations (see President of Russia 2017). Natural gas plays a key role in building an energy superpower, but the fact that Russian oil, coal and uranium are so essential to the European energy supply also contributes to this identity. In Russia, the progress of Rosatom's project in Finland in this particular political situation is presented as a victory that makes it possible to combine traditional power policy with the idea of an energy superpower. Moreover, it promotes the Putin government's target of normalizing the Ukrainian situation and creating a new frozen conflict on its borders. Finland is being given the opportunity to assume a multidimensional role in this process. As a country with strict control over its nuclear power, Finland is an important reference for Rosatom in terms of promoting Russia's soft power image on a global scale. The project also gives Finland a special position in Russian policy in exchange for overlooking Russia's actions in Ukraine. This may be one reason why some Finns want to see the Rosatom project become reality: Finland accepts a project that supports Russia's Great Power ambitions and move to a 'new normal' that simultaneously maintains Finland's traditional special status in the eyes of Russia.

Hanhikivi 1, the Fennovoima NPP that is being constructed by Rosatom and its subsidiaries but still waiting for a building permit by Finnish authorities, is primarily being financed by the National Wellbeing Fund of Russia. The cost estimate for the project is highly competitive in comparison to other nuclear power plant suppliers. The state-owned Rosatom, the legal aim of which is to promote the interests of Russia, is not obliged to produce profit and can also offer Finland a significantly less expensive nuclear power plant. The nuclear sector is fully controlled by the state corporation Rosatom, which handles practically everything related to nuclear issues: nuclear policy, running of NPPs, transport and

reuse of nuclear fuel, radiation safety as well as the nuclear weapon complex (Dobrev 2016). Rosatom was recently granted sole responsibility for the services and logistics on the Arctic Northeastern Sea Route, a central part of this being the ice breaker fleet that runs on nuclear fuel. For this reason, the nuclear sector represents Russia's strategic interests in the field of geoeconomic and geopolitical leverage in its most refined manner. This leverage may well explain why it was not possible for sanctions set by the West to focus on the Russian nuclear sector (cf. Pajunen 2014).

In terms of nuclear technology Russia is very much self-sufficient, and Rosatom has managed to increase its nuclear power portfolio by 60 per cent between 2011 and 2017. With a 17 per cent market share, it is now one of the biggest companies supplying uranium (Dobrev 2016; Rosatom 2017). This upscaling has its economic rationale to be sure, but constructing, owning and providing fuel for NPPs makes it possible to promote geopolitical and geoeconomic objectives by sealing the Russian presence for 60 or more years. Hence, nuclear power institutionalizes political power with a long-standing infrastructure (Oxenstierna 2014). However, the political leverage is far greater in those cases where Rosatom delivers uranium to NPPs constructed, owned and run by the corporation. In the case of Finnish *Hanhikivi 1*, Rosatom has a contract to deliver uranium to the plant for the first ten years, but it is very likely that the Russian nuclear giant will continue to provide the uranium after this time frame. This is explained by the fact that Rosatom has a mastery of the technical and chemical requirements of the uranium pellets, as they are designed and fine-tuned for Rosatom's own nuclear plants. Another important factor is that Rosatom, as a state corporation with no obligation to produce profits, can provide the uranium at prices below the market rate. This makes it possible to maintain long-term control over resource flows as well as produce political leverage that radiates beyond the nuclear sector, despite the fact that on paper the uranium trade is based on (free) market considerations. Hence, although Fennovoima can buy its uranium from elsewhere after the ten-year uranium delivery contract expires, fuel economics will discourage such moves.

The progress of the Fennovoima–Rosatom–Fortum negotiations from 2014 onwards provides a good example of the special nature of nuclear power and underlines the strong foreign policy links in Russian–Finnish nuclear power cooperation: the decision-making processes included flexibility concerning the promised time limits, the government was closely involved in the processes alongside a private company (Fennovoima) and the state majority-owned company Fortum was encouraged, if not compelled, to become a shareholder. Nuclear power cooperation and the

Fennovoima–Rosatom project are officially (see Ministry for Foreign Affairs Finland 2016) an important part of promoting good relations between Finland and Russia as long as the project progresses without problems. The government and several political parties have presented the dimensions of the Rosatom project as being no more than an economic, environmental and energy policy matter. Thus, a foreign or security policy assessment was considered unnecessary. However, the problems faced by the project reflect on relations between the countries and, for example, the opportunities for Finnish companies, such as Fortum, to operate in Russia.

Nuclear energy cooperation does not only have important ramifications for and, to a certain extent, to frame Finland's foreign policy considerations vis-à-vis Russia; it also potentially hinders a rapid energy transformation in Finland. *Hanhikivi 2*, yet another new NPP project that is already on Russia's trade policy agenda, would limit growth in the share of renewable energy in Finland because a large and inflexible amount of nuclear energy in the electricity system makes it difficult to increase the share of variable renewable – primarily wind and solar – energy (see Kopsakangas-Savolainen and Svento 2012).

When Finland obtains its energy and energy production infrastructure from Russia at a very low price, it is worth considering what else has been factored into it – in addition to market price calculations. Taking into consideration other objectives that are not directly related to energy, one of Russia's most central objectives is that it would like Finland and Sweden to remain militarily non-aligned countries. Against this background, it is worth asking the question of what would happen to the pricing of oil (such as, transports) and especially energy flows and technology in the gas and nuclear power sectors if Finland chose differently by, for example, joining NATO?

THE FENNOVOIMA–ROSATOM DEAL IS SATURATED WITH ENERGY POWER

In autumn 2015, Finland's government accepted the NPP proposal prepared by the Finnish–Russian power company Fennovoima (which translates as 'Finnish Power'). The government decided to go ahead with the Rosatom 1200 MW project right after Russia had occupied the Crimean Peninsula and launched a proxy war in Eastern Ukraine. The Fennovoima NPP was originally supposed to be financed and built by a German–Finnish consortium, but the German energy company E.ON withdrew from the project in October 2012. This consortium sought to

build a larger 1600–1700 MW NPP in Pyhäjoki, located in Northern Finland, using either Areva’s French or Toshiba’s Japanese technology. The Finnish energy company Voimaosakeyhtiö SF – with investments from Finnish heavy industries, retail companies and municipal power and heat enterprises – held a 66 per cent share and the German E.ON covered 34 per cent.

In 2013, Rosatom proposed not only to build the new Finnish nuclear plant, but also to cover the required investment costs, amounting to one-third of approximately 8 billion euros for the entire project. The French company Areva was (and still is in 2019) building the notorious *Olkiluoto 3* NPP in southern Finland and, after experiencing severe problems in quality assurance leading to delays and cost overruns, was not included in the new Fennovoima bid. Toshiba submitted a full application, but the Finnish side accepted Rosatom’s application. The Fennovoima management was certainly less interested in Toshiba’s technology after the Fukushima accident, and attracted by Rosatom’s generous offer to partially finance and build the NPP in addition to providing support and uranium fuel.

After Russia became involved in the war in Ukraine, the likelihood of the Fennovoima project becoming politicized increased significantly. In February 2014, at the same time as Russia occupied the Crimea, the Finnish government signed a nuclear cooperation agreement with its eastern neighbour. The fact that the head of Rosatom, Sergei Kirienko, acted as Russia’s signatory revealed the true nature of the corporation: Rosatom is practically the ‘Ministry of Nuclear Energy and Weapons of the Russian Federation’. This deal reinforced Rosatom’s position vis-à-vis other international nuclear companies, such as Rosatom’s competitor in the Fennovoima project, Toshiba, which were trying to compete in the Finnish energy market.

The *Hanhikivi 1* NPP process became even more interesting from the foreign policy and political energy-power perspectives when the Finnish government set a 60 per cent threshold for domestic financing – in order to be accepted, at least 60 per cent of Fennovoima ownership should be in the hands of Finnish or other EU actors. This decision came following increased public discussion concerning whether Finland should let Rosatom build and own the *Hanhikivi 1* NPP in a situation where Russia is flouting international agreements and law. This issue became even more acute after several domestic investors withdrew from the project, possibly fearing image losses when investing in a Russia-backed project, meaning that the foreign ownership share might exceed 50 per cent. Rosatom had expressed willingness to finance more than the 34 per cent initially agreed upon.

In late 2014, the Finnish state majority-owned energy company Fortum, which produces heat and power in the Nordic and Russian markets, announced that it could invest 15 per cent in the Fennovoima NPP. This would guarantee the necessary level of domestic ownership. Fortum's bid was conditional, and included transferring the hydropower assets of Gazprom in the regional energy company TKG-1 in Northwest Russia to Fortum. The negotiations on Russian hydropower assets continued between Fortum, Gazprom and Rosatom from late 2014 until summer 2015, but were not successful for Fortum.

The hydro assets were clearly, both economically and strategically (geopolitically and geoeconomically), too important for Gazprom and Putin's regime to be used as a trade-off in the Fennovoima–Rosatom deal. In June 2015, contrary to the desires and expectations of Fortum and the Finnish government, Gazprom did not hand over the hydro assets, but instead introduced a Croatian company as a new domestic investor. It was soon revealed that the Croatian Migrit Energija was owned by two sons of Russian oligarchs with newly acquired Croatian citizenship. Thus, this 'Croatian' miniature enterprise of two persons, with a liquidity of a few million euros, was supposed to invest 150 million euros in the Fennovoima project. It was clear that this was a Russian shell company, especially since Sberbank Rossii was to be the creditor for this Croatian company. This gambit by Rosatom and Putin's regime politicized the project even further. The Finnish government had promised the Finnish Parliament that the necessary domestic ownership shares would be acquired by June 2015. But as no domestic (European) investors were found before the deadline, the Russian party tried to further the project with the help of this Croatian puppet (Nikkanen 2015).

This manoeuvre gave the Russian side an opportunity to keep the process alive while testing the Finnish side. The deadline set by the government to gather the necessary domestic investors was superficially met, but it was clear that the Finnish government would refuse to accept the Croatian company as domestic. Moreover, this bid further diminished Fortum's chances to succeed in their hydropower trade-off. Parties in Moscow were well aware – for example, via the former head of Rosatom and the Russian Ambassador to Finland Alexander Rumyantsev – that the Finnish conservative government was keen on pushing the Fennovoima NPP through. In early autumn 2015, Fortum finally announced that it would step in as an investor (covering 6.6 per cent), and therefore guarantee the required domestic euros for the plant. To everyone's surprise, the investment commitment was made without Fortum getting its hands on Northwest Russian hydropower. This outcome caused suspicion that the Finnish government had pressured Fortum – an

independent listed company – to make the asymmetric move following ministerial level negotiations in Moscow. The CEO of Fortum announced that “[t]aking part in this project was not the objective of Fortum Ltd, but our (financial) commitment makes it possible for the Fennovoima project to proceed following the schedule set by the Finnish Government” (Fortum 2015). This reflects perfectly the pressure exerted by the Finnish government on a state majority-owned, but still independent stock company during and after the negotiations in Moscow regarding the nuclear deal.

This chronology demonstrates that major energy deals, not least nuclear, have foreign policy ramifications and are saturated with energy power. However, Russia is a party to the war in Ukraine and Finland has, along with other EU member states, imposed economic sanctions on Russia that specifically target the energy sector. In light of this, the assurances that the Fennovoima NPP has nothing to do with foreign and security policy made by Finnish and Russian actors who want to see the project materialize are, to say the least, odd.

Politicians who support the Rosatom NPP have accused its critics of being biased and unpatriotic, which in itself demonstrates that foreign policy plays a strong role in the project. Former Prime Minister Alexander Stubb has talked about the demonization of Russia. Critics of the project have been accused of Russophobia (Eduskunta 2014). This is surely political rhetoric, but one cannot help but wonder at the power of energy when projects like this make the Prime Minister argue that criticizing a corporation owned by a country at war is considered equivalent to criticizing the entire country and its citizens. The same members of Parliament that voted for sanctions targeting the Russian energy sector seem to have no problem with Finland’s commitment to a project that is of great symbolic and actual importance to Putin’s regime. This illustrates how sensitive the topic is for Finland. What makes the discussion so interesting and also problematic are the assurances that energy policy, especially regarding nuclear power, can be separated from foreign policy. Finnish energy policy is presented as being immune to the power that is exercised globally through energy.

CAN NUCLEAR POWER PROMOTE INTERDEPENDENCE AND PEACE?

A key argument in favour of the Rosatom project is the implicit assumption that nuclear power promotes cooperation between Russia and Finland, Russia and the EU, and that this cooperation promotes peaceful

relations between the parties in the long run. Basically, this idea leans on the legacy of *Ost-Politik* initiated and carried out by Social Democrats in West Germany from the 1960s onwards (e.g. Högselius 2013). It assumes that all economic activity, regardless of the traded commodity or sector it concerns, is beneficial for both parties: it produces affluence, but it also builds mutual trust and goodwill in particular. Implicitly, the trade is supposed to *tame* the more authoritarian party, and commit all those involved to transparency, stronger institutions and, ultimately, to democracy. Although this idea has not been directly expressed as such in the Finnish debate on Russian nuclear power, it is included in, for example, a statement made by Jouni Backman, a former Social Democratic MP and Parliamentary Group chair at the time, who in 2014 said “we have cooperated with Russia on nuclear power for decades, and one crisis (the war in Ukraine) is not going to change that” (Helsingin Sanomat 2014). This call for pragmatism can be based on one of two assumptions. Either all economic cooperation with bellicose authoritarian governments promotes peace and democracy or, despite supporting ethically problematic development, trade and politics should not be mixed. The first of these is idealistic and the latter is cynical. Backman’s further argument supports the cynical interpretation: “We’ve never had any problems.” In other words, ethical issues do not matter as long as energy is available on a reliable basis.

Regardless of their real reasons, Backman and the Centre Party’s Mauri Pekkarinen, an MP at the time (Helsingin Sanomat 2014), encouraged Finland to overlook the occupation of the Crimea and Eastern Ukraine in the same way many Western European countries turned a blind eye to the occupation of Czechoslovakia in the 1960s. In the spirit of the *Ost-Politik*, in the aftermath of the Prague Spring of 1968 and the consequent Soviet occupation, a number of Western European countries – Finland, Italy and West Germany at the forefront – struck several oil and gas deals with the Soviets. Now Finland is basically repeating this behaviour in the Fennovoima deal, as is Germany by pushing forward the Nord Stream II gas pipeline project.

In the light of this appeasement strategy chosen by some EU countries, it is interesting to unfold the argumentation and justifications made concerning why nuclear power is an area of energy supply that should be left outside the scope of power politics. For example, in radio interviews (Pajunen 2014), both National Coalition Party MP Sinuhe Wallinheimo and the former Minister of Defence Carl Haglund, representing the liberal Swedish People’s Party, suggested that a nuclear power project with Russian backing is not a security policy issue. Former ice hockey goalkeeper Wallinheimo does not “believe that Russia will pressure

Finland” and states that for this reason, the nuclear power business should be separated from politics in a pragmatic sense. He does, however, see Russia’s KHL ice hockey league as part of “old geopolitical thinking” that links former bordering states to the Russian sphere of influence and “burnishes Russia’s political image”. Ice hockey is geopolitical, but nuclear power is not in this rhetoric.

On the other hand, the former Minister of Defence Haglund stated that construction and operation of an NPP is not related to security policy. However, declining to use a Russian supplier would be an open insult to Russia. Operation is regulated by the Nuclear Energy Act and is based solely on society’s need for energy. The fact that a minimum level (60 per cent) of domestic ownership was set as an additional condition for the Fennovoima project makes this selective disregard for security policy an odd choice. If there was no foreign policy risk associated with the ownership and operation of NPPs – and the production and selling of nuclear electricity was simply business – no such ownership limitations would have been set for the project in the first place. Thus, nuclear energy policy must also be part of foreign and security policy considerations, and failing to do so furthers the greatest desire of Putin’s regime: Europe should separate the economy from politics now that Russia has achieved its military targets, thus creating yet another frozen conflict on its borders. It also inevitably paints a picture of Finland as a country that, regardless of the political situation, enjoys a historical special status granted to it by Russia and – in this case – a reasonably priced NPP guaranteed by the Russian state.

What if Finland and the EU (the West) wanted to use energy policy to promote interdependency and peace? In that case, cooperation should focus on completely different areas than Russian hydrocarbons or nuclear power – the latter of which is linked to the manufacturing of weapons of mass destruction, both organizationally and via its fuel chain. Furthermore, uranium mining and nuclear power generation promote a centralized energy infrastructure, which allows power to be exerted in the energy sector and throughout society by a significantly smaller group than is possible in a decentralized energy system. Therefore, the nuclear cooperation with Putin’s Russia is equivalent to promoting the centralized energy power of a hydrocarbon culture, along with propping up the most violent component of Russia’s Great Power aspirations: nuclear weapons.

Furthering nuclear power is a perfect fit for Putin’s authoritarian government, because secretive activities – we are unlikely to see certified uranium commodity chains in Russia that present the social and environmental effects of activities in a transparent way – within the sector make it easier to keep control in the hands of the country’s leadership. The

impact of nuclear energy on production and consumption is opposite to that of solar electricity, wind power or bioenergy. Renewables are typically produced and consumed over a broad area: a larger part of the population, many organizations and small and medium-sized companies are all involved in energy production and transport. Therefore, a transition away from non-renewable oil, gas, coal and uranium towards renewable energy promotes economic diversification – all along the commodity chain, which means in both Russia and Finland. A diversified economy promotes transparency and an equal playing field for all entrepreneurs, small, medium-sized and large. This subsequently promotes stronger institutions and democracy and is the antithesis of Putin's hydrocarbon culture, a topic I will return to in the concluding chapter. Like the oil and gas sector, uranium is based on specific points of production and narrow corridors of transport – which are vertical and horizontal *choke-point geographies* in the same way as hydrocarbons. They employ only a small share of the workforce in Russia, even though energy exports account for more than half of Russia's budget. Finland could more effectively promote a sustainable and resilient Russia by means of trade built around renewable energy than by importing nuclear energy or hydrocarbons.

WILL 'FINNISH POWER' DECREASE FINLAND'S (ENERGY) DEPENDENCY ON RUSSIA?

One of the reasons used to justify the Fennovoima project has been reducing Finland's dependence on electricity imported from Russia – electricity from Russia covers a little less than 10 per cent of Finland's needs. After Rosatom was selected as the supplier and part-owner, supporters of the project changed their tune. In his energy policy report to Parliament (Eduskunta 2014), former Prime Minister Stubb claimed that "contrary to intuition, the project will decrease our dependence on Russian energy". According to that statement, the project would no longer reduce Finland's dependence on imported electricity, but would now reduce its dependence on Russian energy.

However, nuclear electricity will not replace Russian gas because a significant amount of gas consumption occurs in industrial processes, first and foremost in oil refining by Neste Ltd, and co-production of electricity and heat that is mainly supplied to the Helsinki Capital Area. On the other hand, if we assume that Rosatom's plant would completely replace the electricity that now comes to Finland from Russia, the dependency would actually decrease in terms of electricity. The new

NPP's capacity of 1200 megawatts is three times what has been imported (400 MW) from Russia to Finland. However, Rosatom's one-third ownership share allows it to sell 400 megawatts of the electricity production to whomever it wants: in the electricity markets of the Nordic countries, the Nordpool, or to Russia and Estonia (via Estlink).

Electricity trade became bilateral in 2015, which means that in the future Rosatom can sell its own share to Russia if it so desires, leaving the situation unchanged with regard to electricity supply. Furthermore, cross-border electricity trade is completely controlled by another Russian state-owned company called Inter RAO. Although Finns do not have the power to decide how much electricity crosses the border, the national grid operator Fingrid has argued that operations that do not observe market logic – such as selling electricity to Russia when the price is higher in Finland – are easily detected. However, it is easy to recall the electricity import situation in 2011 and 2012; after citing economic reasons, Inter RAO reduced electricity imports during peak winter hours, thus managing to manipulate the price of electricity in Finland. In response to the threat of such market distortion situations, former Prime Minister Stubb tried to reassure people by stating that nuclear power produced by Rosatom also accounts for approximately half of Ukraine's electricity and has remained outside the scope of military actions. This is despite the fact that Ukraine's chronic dependence on Russian energy in 2013–16 was based on the joint impact of nuclear power and gas, and that Russia has used this as a means of exerting pressure for decades. There is no need to use nuclear power to influence Ukraine. But such a possibility does exist, which makes gas an even more effective method of applying pressure. Ukraine has recently decreased its dependence on both Russian gas and uranium.

It is a fact that Russia is using energy to promote its geopolitical interests; energy is a central component in Russia's foreign policy. Within the frame of the Great Power desires of the Putin regime, it is fully *rational* for Russia to use energy as a source of political power in the international context. In addition to a nuclear deterrent, Russia has very few means other than hydrocarbons and nuclear power to exert influence internationally. Russia's energy-related power strategies vary in different contexts: what is effective in Ukraine and Moldova, for example, cannot be copied in Finland or Germany. Therefore, Finland is part of Russia's energy diplomacy even though Finland has never had any problems with energy deliveries from Russia. However, Finland's dependence on hydrocarbons and uranium from Russia (70 per cent of imported energy comes from Russia) does emphasize the risks of electricity production. The fact that the possibility for manipulation of the electricity market even exists

is enough. The insistence by some Finnish political and economic actors that the Russian nuclear power deal has nothing to do with foreign and security policies is therefore worrying, as the measures taken by both the Finnish and Russian actors clearly demonstrate that the nuclear business in particular is highly political. Although nuclear power produces very little of the greenhouse gases that are warming the planet, the fact that the nuclear strategy of Putin's regime is firmly based on the hydrocarbon culture, its power networks and rents is the antithesis of the decarbonization and decentralization needed to bring about a resilient and peaceful, and thus respected and trusted Russia.