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# **Pipeline Politics and Energy (In)security in Central and South-Eastern Europe**

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## **Introduction**

This essay concerns energy security, or more specifically energy insecurity, in Central and South-Eastern Europe. Insecurity can be defined as being in a situation where vulnerability from a particular danger or threat is perceived to exist. Threats generally come from external sources, but can also come from within and usually have an existential quality. Energy is existential because it underpins modern life – we use it to provide power, heat and light to our homes, work-places and cities; to fuel our cars and other forms of transport; to help produce and power technology; and even to help us grow and process the food we eat. Therefore, energy is a critical resource and as such it is a commodity of significant strategic importance. The main concern that has driven the rise of energy insecurity has been 'security of supply'. This refers to the ability of states and other users to guarantee sources of affordable energy, sufficient to meet their needs across all economic and business, societal and even politico-military activities. Energy insecurity exists when internal actions or those by third parties actors or even natural disasters threaten to, or actually do disrupt the supply or affordability of energy.

Energy insecurity is not unique to Central and South-Eastern Europe. The region shares many concerns with other parts of Europe and states across the globe, however, because of the historic legacies of the region's communist past some of the vulnerabilities and threats it faces are pronounced. For example, the region is highly import dependent for fossil fuels such as oil and natural gas<sup>1</sup>, with some states importing as much as 60-100% of their needs from a single supplier, Russia. Monopolisation of the market by Russia as the primary supplier means that long-term bi-lateral export/import contracts tend to be less price favourable resulting in higher energy costs. The mix of energy types used by states in the region is considered to be less diverse than in Western Europe, meaning that any disruption to their primary energy type could be problematic. This is especially so, when we acknowledge that the region's import infrastructure is dominated by static pipelines built during the Soviet era and that integration with Western European infrastructure is limited. Without suitable alternative energy access or adequate storage, any problem with the pipeline or with the source of gas (or oil) entering the pipeline can have serious knock on effects for importing states downstream. The importance of pipelines cannot be underestimated. They have provided the Central and South-Eastern European region access to oil and gas for decades and this has formed a mindset for how the region accesses much of its energy needs. Until recently, the situation was more problematic for natural gas because the expense and lack of technical capability to liquefy and regasify natural gas meant that its transportation was only realistically capable via pipelines. As a liquid, oil could be transported via tankers, meaning oil pipelines were not as critical,

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<sup>1</sup> For example, other than Romania, nearly all Central and South-Eastern European states are dependent on natural gas imports, with almost 100% imported by Belarus, Bosnia-Herzegovina, Bulgaria, Czech Republic, Estonia, Lithuania, Macedonia, Moldova, Serbia, Slovakia and Slovenia.

although they remain by far the cheapest and quickest means to transport oil and most suitable for some of the region's landlocked states. As a result of these issues, Central and South-Eastern Europe is considered to be the most vulnerable region of Europe with regard to energy security. Even those states with substantial domestic energy sources, such as Poland (coal and lignite) have become increasingly reliant on imports of low-carbon fuels like natural gas, as they seek to meet strict EU climate change and targets for CO<sup>2</sup> emissions reduction. Much of this natural gas has also been imported by pipelines. In order to better understand how pipeline politics plays a role in creating challenges and vulnerabilities for Central and South-Eastern Europe's energy security, as well as informing policy solutions, we need to consider the region's relations with its primary and potential energy suppliers, such as Russia, and with its partners in the wider European Union (EU).

### **Energy and the European Union**

In Europe, until recently, there has been a growing demand for energy. It is considered that energy consumption levels within the European Union, peaked around 2005 (see table 1) and improved efficiency of energy use is predicted to result in further reductions in energy consumption over the coming years. Interestingly, in comparison with the EU as a whole, the Central European states energy consumption levels peaked much earlier than their western counterparts. By 2035 domestic production of primary fossil fuels is also predicted to fall, with oil by 57%, coal by 49% and natural gas by 46%. This would cancel out the predicted fall in consumption levels. As a result it is assumed that energy imports will remain constant at around 55%; of which natural gas imports will increase by around 49%. This means that the European Union is likely to remain the world's largest net importer of natural gas. It is important to note however that the levels of imports are not balanced across all EU member states, with some countries importing much more than others which have domestic resources available. Overall the EU imports around 60% of the gas it uses and 80% of the crude oil. The majority of these imports come from a small group of states, Russia, Norway and Algeria, and because of the nature of the EU's infrastructure and geographic proximity, these supplier states tend to direct their products to clusters of EU members. As already mentioned, the Central and South East European States are predominately supplied by Russia. When energy imports are concentrated among a few supplier states, there is increased risk of vulnerability should external matters result in disruption to supply and sufficient alternative mechanisms to counter that disruption are not in place. For a number of Central and South-Eastern European states this is exactly what happened in 2006 and again in 2009 when Russia suspended gas sales to the Ukraine. This was problematic because Ukraine provides one of the primary transit routes for Russian gas imports. These two Russia-Ukraine gas-crises and the fact that the majority of Central and South-Eastern European states were now members of the EU, is often used to explain why the EU has become more involved in energy matters and why energy has increasingly become an area of integration activity at the European level.

The story is a little more complex though. Energy has always been important for the European integration project, from its foundation as the European Coal and Steel Community, through Euratom to the European Energy Charter Treaty, the European Energy Community to the most recent development of the European Energy Union. There have always been ebbs and flows in the intensity of policy development but since the 1990s and early 2000s interest in energy has grown significantly at the European level. Import dependency has not been the only driver of this rapid expansion of energy interests. The promotion of market liberalisation and growing concern for environmental matters and climate change have also been hugely important. This tri-partite justification for the increased interest in energy, can also be used to explain the EU's securitization

of energy. It is necessary to recognise that there has also been a fluctuating hierarchy of importance across these three drivers.

In the early 2000s it was very much the latter two drivers (market liberalisation and the climate agenda) that were most significant. Questions about supply did exist, but it is important to note that they tended to be framed more in the context of market forces and were about ensuring affordable supplies and improving the connectedness of market infrastructure to ensure regular supplies at reasonable prices in light of growing demand. Diversification of suppliers was primarily about opening the market to competitive forces and preventing monopolistic pricing structures. This is not to say that questions over transit routes or reliability of suppliers were not a concern, rather they were not the priority. Fears about rogue suppliers 'turning off the tap' were not on the agenda and Russia was more or less regarded as a safe and secure supply partner.

Central and South-Eastern European states fell in line with this general EU position and this was evident in the language they used at the time. Acutely aware of their energy challenges primarily stemming from their time behind the Iron Curtain, and in advance of their accession to the European Union the Central European states initiated cooperative efforts to support their integration into the wider European energy market. For example, in 2002 the Visegrad Group (V4) under the presidency of Hungary initiated the V4 Energy Working Group as a means to support the ministries of economy in the V4 states to improve cooperation across the energy sector. The main purpose was to improve information exchange to support market liberalisation across the region, speed up privatisation strategies and ensure the maintenance and expansion of storage facilities – all demands of the EU on the Central European candidate states. Improved interconnections with Western Europe were also recognised as necessary to support market integration.

Diversification away from Russian supplies was not considered a rationale for this type of cooperation. When diversification was mentioned it was viewed as 'in addition to', rather than 'instead of' Russian supplies. It was about choice and price. As the then Hungarian Prime Minister Ferenc Gyurcsány stated, 'Mad would be the country which was happy about depending on a single supplier for the purchase of a strategically important service and product', highlighting the fact that replacing Russia as a single supplier with an alternative single supplier would not resolve the fundamental challenges informing energy insecurity. This could be recognised when proposals were put forward in 2002 for a major new pipeline that was intended to open up the European market to natural gas from the Caspian and Central Asia regions. The consortium behind this pipeline, which became known as the Nabucco Pipeline, initially involved Austria and Turkey but quickly included Hungary, Bulgaria and Romania, highlighting the importance of these countries as transit states for the new pipeline and the opportunity for them to benefit from access to the piped gas. All three states are highly dependent on Russia for their gas imports and pay a premium price via take-or-pay contracts with Russia. Having additional sources of gas imports would potentially give these states increased leverage in any future gas contract negotiations.

### **The emergence of pipeline politics – Nabucco v South Stream**

Nabucco was developed in response to the discovery of the Shah Deniz gas field the Caspian Sea in 1999. At 330 sq miles Shah Deniz is one of the largest new oil and gas fields to be discovered in recent years and it began production in 2006. Nabucco was intended to provide transit of natural gas from this field to Europe and was at first considered a commercial venture, but it was not long

before the project took on a political undertone, although for Russia, it always held political connotations.

The Nabucco project was problematic for Russia because it threatened its effective monopoly on gas imports to Europe, specifically Central and South-Eastern Europe. As Russia's biggest customer, it doesn't help Russia if that customer has alternative suppliers, thus giving opportunity to bargain on price. For Europe this is exactly what Nabucco was intended to achieve – increase competition and lower prices. For the EU and its member states two things happened to alter their position towards Nabucco and shift it from being a predominately commercial venture to a political one.

The first was the first Russia-Ukraine gas crisis in 2005-2006 which saw disagreement over the price of gas to be paid by Ukraine result in the suspension of gas flows from Russia to Ukraine for 4 days. As Ukraine is the major route through which gas destined for the European markets transits, the disruption to levels of gas, exacerbated by Ukraine siphoning gas intended for European markets, resulted in a significant drop in supplies. For some Central European states this was a serious problem. It highlighted their failure to ensure adequate stored gas supplies and emphasized their over reliance on Russia as single supplier. Furthermore, the trustworthiness of Russia as a supplier and Ukraine as a transit state, which had previously been accepted, was now brought into question in a way it never had before.

The second matter was the emergence of alternative competitor pipeline projects promoted by Russia. Initially Russia had suggested an extension of its Blue Stream pipeline via Turkey as a way to provide an additional access point for Russian gas into Europe. It eventually decided against this and in 2007, it announced the South Stream project which would run a pipeline under the Black Sea and up through Bulgaria, Serbia and into Hungary supplying Europe with 63 billion cubic metres of gas. For Russia, South Stream did two things; firstly, it sought to reinforce Russia's dominate position as the primary gas supplier to Central and South-Eastern Europe, and open possible new opportunities by providing Russia with a southern access point to its European markets without having to go via Ukraine. This dovetailed with the Nord Stream pipeline under the Baltic Sea running direct to Germany and providing 55 billion cubic metres of natural gas per year. By establishing both these projects, Russia was essentially claiming that it could remain a viable and reliable partner by providing new transit routes. In doing so it effectively sought to accuse Ukraine as the transit state as the problem. Secondly, it allowed Russia to pit its project directly against Nabucco and seek to prevent its monopoly on gas supplies from being eroded too quickly. It claimed that South Stream would be more competitive and not cost as much to build. It also created uncertainty for possible investors because it raised questions about the sustainability of two competing pipelines.

Russia failed to convince many in Europe that it could be trusted and rhetoric which made reference to energy as a foreign policy tool as well as some of the actions undertaken by Russia towards energy importing and transit states have fuelled the rise of a discourse in western political, academic and media circles that emphasises 'the new cold war', 'energy wars' and 'energy weapon'. Energy was now highly political. In the southern corridor space, the Nabucco and South Stream pipeline projects suddenly found themselves framed as Europe versus Russia, thus emphasising political tensions. Of course it was not quite so straight forward because key EU member and candidate states from Central and South-Eastern Europe were partners in both projects, thus adding to the complexity of the situation.

Nonetheless, what we see in Europe during this time is a clear shift in the framing of energy as a security concern with pipeline politics seen as a crucial element in this development. A second Russia-Ukraine gas crisis in 2008-2009 reinforced this concern about security of supply for Europe

and specifically for the Central and South-Eastern European states. We can however question the ultimate success of this securitization of pipelines within the wider energy security discourse.

Nabucco was prioritised as a high level European project with clear political and security rationales and was supported by the EU and the USA. Why it became so politicized was in part due to the need to secure political backing and justification for funding support. This was coupled with its identification as a possible signature project by the European Commission, which was seeking to develop its energy policy competencies, both internally and externally. The Russian-Ukrainian gas crises, the urgency to diversify supplies and growing concern about Russia's use of energy and pipelines as foreign policy tools, allowed the project to be securitized as a means to introduce alternative suppliers, break Russian monopoly and ultimately curtail Russia's ability to use energy for political moves. The securitization of the Nabucco pipeline project effectively prolonged its existence in a way that standard commercial projects would not have been able to do. Yet despite this apparent wealth of political support, the commercial viability remained key and no matter how much political backing if the numbers did not stack up it was not going to move forth. This is exactly what happened and Nabucco effectively stagnated as a project. The strange thing is that everyone knew this, yet there seemed to be some sort of collective denial and whenever anyone did say something or suggest that the project was not likely to come to fruition as some of the more frustrated Central European states did they were castigated and shamed as being anti-European or not supportive of energy solidarity in Europe.

### **Pipeline politics – economic versus political rationales**

The need for projects to have commercial viability resulted in other competitor pipeline projects emerging to challenge both Nabucco and South Stream. The most significant of these was the Azerbaijani-Turkish owned Trans-Anatolian Natural Gas Pipeline (TANAP) which was announced in 2011 and would effectively replace the need for much of the Turkish section of the original Nabucco project. This forced the Nabucco consortium to re-evaluate their proposal. The rebranding of Nabucco as 'Nabucco West' reflected the truncation of the project as a spur pipeline from TANAP up through Central and South-Eastern Europe. This revised project looked more achievable and even economically viable, but the ongoing economic crisis and the investment of SOCOR (the Azerbaijan state owned oil and gas company) in Greece where it purchased 66% of the Greek Transmission Network Operator in 2013, may have had an influence on the 2013 decision by the SOCOR-led Shah-Deniz consortium to award a contract for the transit of TANAP gas to the Trans Adriatic Pipeline (TAP) rather than Nabucco West. TAP had initially been proposed as early as 2003 as a pipeline built via Greece and Albania to Italy and following the award of the contract the TANAP consortium purchased shares in TAP reinforcing it as the official extension of TANAP in Europe. TAP had been placed in direct competition with Nabucco West which was to run further north, as the primary route for the European section of the southern energy corridor. The politics held by the Central and South-Eastern European states and the EU that drove the need for Nabucco were not shared by Azerbaijan and its Shah-Deniz/TANAP partners; so it was not surprising that a more modest project with a seemingly higher investment return was selected. This leads us to question the relationship between commercial activity and political requirement. If something is so important it warrants the type of prioritizing that Nabucco received then that has to be supported by relevant financial investment for political means. This did not happen for Nabucco which was predicated by the need to adhere to market-led forces. Political neutrality is required if the market is to operate as it should. Herein lies the paradox – energy policy cannot be politically neutral. European states know this, as does the European Union and when the market is allowed to take precedence it will adversely affect

the ability of states to ensure big infrastructure projects of strategic (if not commercial) importance are fulfilled. This is one of the big challenges for Europe and for those Central and South-Eastern European states that need improved infrastructure but can't always rely on the market providing it. How do you balance the economics with the politics?

### **The problem of South Stream**

The failure off Nabucco West to win the Shah-Deniz contract effectively meant that the project became untenable. This meant that if southern corridor gas was to reach Central and South-Eastern Europe then the possible options would have to be via either a secondary spur from TAP, perhaps into Bulgaria, and Russia's South Stream project.

Although a Russian backed project, South Stream had the support of a number of Central and South-Eastern European states, including Bulgaria, Croatia, Greece, Hungary, FYR Macedonia, and Serbia as well as Italy and Austria. This highlights the fact that Russia remains an important strategic partner for these states within the energy sector. Each of these states had signed contracts with Russia to complete the various primary and secondary parts of the pipeline along its European section. Despite the enthusiasm of the Central and South-Eastern European states for South Stream, the project faced a number of challenges including accusations from the European Commission in December 2013 that the contracts signed between the Russia and the EU states, including Serbia which is a member of the European Energy Community, were in violation of the EU's Third Energy Package regulations concerning ownership of pipelines by natural gas extractors and right for third party access to the pipeline. Then in June 2014, the project was effectively stopped due to a European Commission infringement procedure against Bulgaria concerning non-compliance with EU procurement requirements. Bulgaria had also been threatened with possible sanctions by the USA due to the participation the Russian company, Sroytransgaz, in the consortium awarded the contract to build the Bulgarian section. At the same time, like Nabucco before it, there were questions over the financial viability of the project. Competition from other energy projects and sectors (such as the increased adoption and affordability of Liquefied Natural Gas - LNG) was creating a more challenging environment where long term contract and fixed pipelines become expensive and inflexible. Ongoing political tension due to the Russia-Ukraine conflict following the annexation of Crimea by Russia and the imposition of Western sanctions on Russia also impacted the project and in December 2014 Russia announced that it was dropping the project in favour of working with Turkey on a new pipeline project.

### **Implications for Central and South-Eastern Europe**

The cancellation of both Nabucco and South Stream has had significant implications for Central and South-Eastern Europe. Firstly, it highlights that their perceived energy needs, even when framed in strong security terms, are not strong enough to override financial realities. Economics trumps politics. It also reconfirms that this part of Europe is likely to remain reliant on Russia and that routes via Ukraine are likely to continue to be important for the foreseeable future unless possible new land-based routes such as that proposed to run through Turkey or spurs from TAP are developed.

When considered in terms of diversification of supply and access to new sources of gas, this is potentially problematic for the region, however, it has also forced the Central and South-Eastern

European states to carefully consider new responses to their energy insecurity in a post-Nabucco and Post-South Stream context.

To be fair, the Central and South-Eastern European states have been astute enough to understand that their energy security could never be entirely reliant on the southern corridor pipeline projects. Those projects if they had come about might have given some long-term stability of supply, but they would not have resolved the other key problems they face in terms of energy insecurity – specifically their integration into the wider EU energy infrastructure. A north-south corridor had been identified as a major missing link in this infrastructure allowing connection of various energy systems (gas, oil and electricity grids) from the Adriatic in the south to the Baltic in the north. With the demise of the big project southern corridor (not taking TAP into account) this north-south corridor has become even more essential. Indeed, the concept of north-south has been extended to what the EU calls north-south-east, where the promotion of a series of smaller energy infrastructure projects would allow for the development of a ring-road connecting the Baltic, Adriatic and Black Seas. This would be done by investing in existing infrastructure and building reverse flow interconnectors between states cross the region. The Central European states have been promoting this idea for some time but until recently it has always played second priority to the big pipeline projects. As it turns out it may play a more significant and relevant role in supporting the development of energy security for the region. The fact that these interconnectors allow for reverse flow should allow for a sharing of gas resources in times of stress.

Financing of these small-scale projects has also been problematic and the Central and South-Eastern European States have looked towards the EU for financial support. The EU recognises that there are occasions when such projects need financial support and to its credit it has been more supportive of these type of projects because they can be delivered quickly and effectively than the 'grand pipeline projects', such as Nabucco. The need to ensure improved infrastructure is also important because it allows the region to benefit from LNG as an alternative supply piped gas. The Baltic States or Estonia, Latvia and Lithuania are a good example of a former 'energy island' region that has sought to use LNG as a means to provide access to gas from other suppliers. There have of course been problems in agreeing the location of LNG terminals in the Baltic region, highlighting the fact that states still see great benefit in being the host of energy facilities. For Central and South-Eastern Europe, a new LNG terminal has come online in Poland and another is planned in Croatia. The Croatian terminal is proving problematic in terms of the speed of its planning with feasibility studies only currently being carried out despite the idea for a terminal being around for quite some time. The plan is that the two terminals – Poland and Croatia – would be connected by 2020 allowing the so called North-South corridor to be completed.

Other ways that the Central European states have sought to improve their position has been through increased gas storage. Most of the states in the region learned a harsh lesson in previous Russia-Ukrainian gas crises, and the concern about a possible reduction in supplies following the 2014 Crimea crisis appeared to justify that moves to increase storage for critical points of the year was working. All states in the region successfully coped with a simulated stress test on their gas supplies run by the European Commission in 2014 and suggestions stemming directly from that exercise which stated that improvements to regional infrastructure should be completed faster has led to the establishment of the 'Central East South Europe Gas Connectivity High Level Group' which first met in February 2015.



## **Conclusion**

What we have seen in the face of the collapse of the large scale pipeline projects designed to improve the energy insecurity of Central and South-eastern Europe is that smaller practical solutions appear to allow the region to respond more effectively and quickly. They are more easily financed and can be completed in a more manageable timeframe. As such they perhaps suggest that the big pipeline projects are not always the best solution to energy insecurity and can actually increase that insecurity.

Does this mean that pipeline politics and energy security has been over-played in Europe? On one hand yes, perhaps it is. Caught up in a cycle of geopolitical power play it was easy to over emphasis the security threat to Europe's energy, but in reality when it comes down to it, Europe and the Central and South-Eastern European region have been able to respond and develop alternative solutions. But there is more to this story concerning the EU, its member states and its neighbours. Energy will remain one of the fields in which politics continues to be played out and this impacts the ability of the EU to speak with one voice. The South Stream project clearly highlighted that EU member states do not necessarily all agree with each other. South Stream prior to its cancellation proved to be a real dividing line between the EU institutions such as the Commission and some of the Central and South-Eastern European States – specifically Hungary and Bulgaria. This raises questions about concepts such as energy solidarity in Europe and the commitment of member states to abide by the EU's market regulations in the field of energy. Therefore it will be interesting to see how the EU's proposed European Energy Union which was announced in February 2015 operates. The Energy Union is intended to strengthen the EU's role in negotiating on behalf of its members and improving the solidarity concept and promoting free movement of energy through a completely integrated and liberalised market as a fifth freedom, alongside the right of establishment and freedom to provide services, and the rights to free movement of goods, workers and capital. While this should improve the ability of EU and its member states to better engage with Russia and other big suppliers, but it also faces continued resistance from some members.

Overall, although as stated at the start of this essay, Central and South-Eastern Europe is considered to be the most vulnerable region in Europe for energy insecurity, the reality is that the level of insecurity may be over-stated. Certainly, the region has faced clear problems and the geopolitical and geo-economic gameplay surrounding large-scale pipeline projects did not help to lessen that insecurity. However, the use of alternative technologies including LNG and renewables, as well as promoting smaller pipeline interconnector projects and overall greater regional cooperation has had a positive impact on the region's ability to address its greatest energy security challenges. Differences of opinion and policy preferences do remain and national self-interest may still challenge a common European position, but it is unlikely that the region will in the future face the same level of energy insecurity that it experienced during the 2006 and 2009 Russia-Ukraine energy crises.

Table 1: European Energy Gross Inland Consumption (million tons of oil equivalent)

		1990	1995	2000	2005	2010	2011	2012	2013
CSEE EU member states	Bulgaria	48.7	53.9	59.3	59.0	<b>61.3</b>	57.8	54.8	56.7
	Czech Republic	<b>49.9</b>	41.7	41.1	45.1	44.7	43.0	42.8	42.2
	Estonia	9.9	5.5	5.0	5.6	6.2	6.2	6.1	<b>6.7</b>
	Croatia	<b>9.0</b>	7.1	7.8	8.9	8.6	8.5	8.1	7.8
	Latvia	<b>7.9</b>	4.6	3.9	4.6	4.6	4.4	4.5	4.5
	Lithuania	<b>15.9</b>	8.6	7.1	8.7	6.8	7.0	7.1	6.7
	Hungary	<b>28.8</b>	26.2	25.3	27.6	25.8	25.1	23.6	22.7
	Poland	<b>103.3</b>	98.8	88.6	92.2	100.7	101.0	97.8	98.2
	Romania	<b>58.1</b>	46.3	36.6	39.2	35.8	36.6	35.4	32.3
	Slovakia	<b>21.8</b>	17.7	18.3	19.0	17.9	17.4	16.7	17.3
	Slovenia	5.7	6.1	6.5	<b>7.3</b>	7.2	7.3	7.0	6.9
West European EU member states	Austria	25.0	27.1	29.0	34.4	<b>34.6</b>	33.6	33.7	33.8
	Belgium	48.7	53.9	59.3	59.0	<b>61.3</b>	57.8	54.8	56.7
	Cyprus	1.6	<b>2.0</b>	2.4	2.5	<b>2.7</b>	2.7	2.5	2.2
	Denmark	17.9	<b>20.2</b>	19.7	19.6	20.0	18.6	18.0	18.1
	Germany	<b>356.3</b>	341.6	342.3	341.9	333.0	316.7	318.6	324.3
	Ireland	10.3	11.1	14.4	<b>15.3</b>	15.2	13.9	13.8	13.7
	Greece	22.3	23.9	28.3	<b>31.4</b>	28.7	27.8	27.7	24.4
	Spain	90.1	102.1	123.6	<b>144.2</b>	130.0	128.3	127.8	118.8
	France	227.8	241.8	257.5	<b>276.7</b>	267.6	258.0	258.3	259.3
	Italy	153.5	161.8	174.2	<b>187.5</b>	174.8	172.0	166.3	160.0
	Luxembourg	3.5	3.3	3.7	<b>4.8</b>	4.6	4.5	4.5	4.3
	Malta	0.6	0.8	0.8	<b>1.0</b>	0.9	0.9	1.0	0.8
	Netherlands	66.7	72.7	75.5	81.5	<b>86.6</b>	80.2	81.8	81.2
	Portugal	18.2	20.6	25.3	<b>27.5</b>	24.3	23.6	22.5	22.6
	Sweden	47.4	<b>51.5</b>	48.9	51.0	50.8	49.7	49.8	49.1
	United Kingdom	210.6	222.3	230.5	<b>234.0</b>	212.2	198.1	203.0	201.1
	<b>EU-28</b>	<b>1667.3</b>	<b>1671.1</b>	<b>1726.8</b>	<b>1824.7</b>	<b>1760.6</b>	<b>1698.1</b>	<b>1686.1</b>	<b>1666.3</b>
SEE non-EU	Norway	21.4	22.8	26.4	27.2	<b>34.4</b>	28.4	30.1	33.7
	Albania	2.6	1.3	1.8	2.2	2.1	2.3	2.1	<b>2.6</b>
	FYR Macedonia	2.4	2.5	2.7	2.8	2.8	<b>3.1</b>	3.0	2.7
	Montenegro	0.0	0.0	0.0	1.1	<b>1.2</b>	1.1	1.1	1.0
	Serbia	19.6	13.6	1.7	15.7	15.6	<b>16.2</b>	14.5	15.0
	Turkey	52.3	62.1	76.7	85.6	106.9	113.9	<b>119.8</b>	118.8

Source: Eurostat (online data code: nrg\_100a)