

A b s t r a c t s

Klaus Gestwa

Energy bridges and climate factories:

The Soviet Union's conception of world energy issues

The development of the Soviet Union was from the very beginning heavily influenced by a conception of world energy issues which sees in mankind's struggle for energy an important mode of historical progress. In the 1950s, ideas of cross-border "energy bridges" and gigantic "climate factories" captured the imagination of people in both East and West. This article draws attention to some fundamental cultural features of the Cold War and of the modern history of energy by examining forgotten Soviet technological utopias which today seem unbelievable.

Kirsten Westphal

Action is needed: the European Union's energy policy

Profitability, ecological friendliness, and security of supply are the goals of energy policy. The EU continues to restrict itself largely to the first two points, and so to a demand-oriented policy. It thus concentrates on the internal dimension of energy policy and neglects the external dimension. Measures to secure the external supply of energy consist mainly of consolidating links with suppliers, above all with Russia as a natural gas supplier. This reveals the weakness of the EU's policy: its sources of supply are insufficiently diversified, and the Union is too dependent on Russia. The reason for this weakness lies in over-reliance on the powers of the market. However, energy sources are not just commodities: they are strategically important goods, and the production of, trade in, and consumption of these goods are subject to geopolitical calculations. The EU needs to coordinate its energy policy in such a way as to make it capable of developing strategic conceptions able to guarantee security of supply. This strategy should then be pursued as part of the Union's Common Foreign and Security Policy rather than as an element in foreign trade policy.

James Chalker

The Energy Charter Treaty:

norms, rules, and implementation

The Energy Charter Treaty was signed in 1994. It regulates trade, investment, competition, transit, and environmental questions in the area of energy throughout Europe, and increasingly in Asia and Africa as well. Forty-six states have ratified the treaty, but Russia has not yet done so. The treaty contains both "soft" and "hard" legal provisions, the effects of which vary. The mediation procedures laid down for dealing with disputes have already been applied. The "soft" norms are considered to be more effective, especially for the East European states.

Friedemann Müller

The protocol of a crisis: Russia, Kyoto, and climate policy

Since the beginning of 2003, all that has been needed for the Kyoto Protocol to enter into force has been Russian ratification of the treaty. The Duma is hesitating, and Russia is using its effective power of veto to pursue other goals – and is thereby bringing about a severe crisis in international climate policy. The discussion in Russia revolves exclusively around the relative importance of economic interests and conceptions of sovereignty, on the one hand, and of integration in international cooperation fora on the other. There is no sign of any preparedness to share global responsibility. If Russia does not take a decision to ratify the protocol soon, it will lose its significance. In that case, Russia would have damaged its reputation as a serious partner in multilateral agreements.

Lutz Mez, Diana Üрге-Vorsatz, Gergana Miladinova

Energy policy in Eastern Europe: a research report

A significant amount of research has examined the various development paths and transformation models of the post-socialist states. The literature in the fields of economics and political science frequently singles out the energy sector in order to identify the main trends of the transformation process. This article discusses the findings of analyses of energy policy and the energy economy in East-Central Europe and Russia, and of studies of the effects of EU accession on the energy sector. The main issues examined are the heavy burden placed on the environment by the energy sector and the low level of energy efficiency.

Hilmar Rempel, Thomas Thielemann, Volker Thoste

Geology and energy supplies: sources of energy and their availability

Europe's energy supply is highly dependent on imports. In 2000 approximately 45 per cent of the raw materials needed to supply energy were imported; according to the EU's Green Book this proportion will rise to about 63 per cent by 2030. As this happens the import dependence for oil will rise to almost 80 per cent, and for natural gas to approximately 70 per cent. The extraction of oil and natural gas from the North Sea will decline in the years to come, and the demand for natural gas is expected to rise steeply; among the reasons for this are the decision to phase out nuclear energy and the comparatively high level of emissions from coal-fired power stations. The combination of these factors will pose new challenges as Europe attempts to meet its growing energy needs.

Roland Götz

Pipeline policy: the routes taken by Russia's oil and gas

Between 1985 and 2000, the expansion of Russia's pipeline network came to a halt. A good deal of money needs to be spent on overhauling the existing installations. By 2020, a number of large-scale projects such as pipelines, port terminals, and facilities for the transport of liquid gas will need to be completed. New areas for the extraction of oil and gas in climatically difficult regions must be opened up. All this will require very large amounts of capital. It is unclear where this investment is to come from as long as foreign capital can only be brought in on the condition that it is not permitted to exert a decisive influence. If the expansion of Russia's transport infrastructure proves unable to keep up with the export opportunities available to the country, the EU will be affected. In the case of oil, the EU will become more strongly oriented towards the Middle East, and in the case of natural gas there will be consequences for the security of supply.

Antony Froggatt

The rise and fall of nuclear energy in the European Union

During the early years of European integration there was rapid growth in the generation of nuclear energy. In the last two decades this development has stagnated. The initial reason for this was the Chernobyl disaster. Further development has been hindered by continuing opposition to nuclear energy, growing economic transparency which has made it clear that electricity produced from nuclear energy is more expensive than that produced from gas or coal, and the liberalization of the energy market. Not a single new reactor is now under construction within the EU, even though plans exist in France and Finland. Some Soviet-type reactors have been closed down, and others are still operating. However, proposals to develop common security standards at the EU level have, up until now, been rejected.

Danyel Reiche

Renewable energy in the EU after enlargement: limits and potential

Many of the new EU states have a long tradition of using renewable energy, especially biomass and water power. However, the communist regimes were convinced that a system based on large units was superior, and they centralized the energy sector. EU guidelines on the promotion of renewable energy lay down targets for the development of ecologically-produced energy that the new member states are supposed to achieve by 2010. As a result, many of these states have begun to pay more attention to renewable energy and to develop systematic policies in this area.

Elena Duraeva

Renewable energy in Russia: use through international cooperation

Russia has enormous potential reserves of renewable energy: geothermal energy, water power, wind and solar power, and biomass. Because the price of natural gas has been kept low, these sources of energy have frequently, up until now, not been competitive. In the numerous regions of Russia which, in spite of the country's massive energy exports, suffer from a shortage of energy, alternative sources could be used today in a way that is economically competitive. In order for these resources to be more widely employed, however, the state's own energy policy must create better initial conditions for the alternatives, and the international expertise acquired in the use of them must be made available to Russia.

Margarita M. Balmaceda

The road to dependence: East-Central Europe on the USSR's energy drip

The Eastern European CMEA states saw their energy situation change dramatically from 1946 to 1989: from net energy exporters they became largely dependent on Soviet energy and part of a multinational web of energy dependency centered in Moscow. This increased dependency on the USSR was related to both the type of energy-intensive economic development largely imposed on these countries after WWII, and to the use of energy supplies by the USSR for alliance-maintenance goals. The economic structures, infrastructure, and interstate ties inherited from the Soviet/CMEA energy system still exist today. These legacies also limit both the CEE states' range of energy options in the post-1991 period, as well as Russia's ability to use energy as a foreign policy tool.

Volker Weichsel

The atom, a monopoly, and diversification:
the Czech Republic's strategy for ending energy dependence

The Czech Republic is attempting to increase its room for manoeuvre in the sphere of energy policy, and to escape from a situation in which it is unilaterally dependent on others. The Czech pipeline network has been connected up with the West European system, and the country has diversified its oil and natural gas imports. The most important part of this strategy, though, is the expansion of nuclear energy. The plan is to turn the state-owned company ČEZ into the leading player in the Central European market, and the Czech Republic into a key location for the production of energy in Europe. This strategy is controversial, both as a domestic policy and as part of Czech foreign policy. Its strongest supporters are political forces with a sceptical attitude to EU integration.

Kai-Olaf Lang

Between security policy and economics:
Poland's energy economy

Poland's relations with Russia are influenced by the contradictory forces of mistrust and cooperation. Poland is aware of the advantages to be derived from cooperation with Russia, but seeks to avoid any form of dependence. Of all policy fields, it is perhaps in energy policy that these dual objectives can be most clearly observed. Poland is attempting to reduce its energy dependence by diversifying its imports, and at the same time to consolidate its position as a transit country for oil and natural gas being exported from Russia to Western Europe. In addition, Poland is seeking to strengthen Ukraine's energy independence and to deny Russian capital access to the Polish energy sector. These goals are in part contradictory, and it will be very difficult to attain them all simultaneously.

Michael Krug

Latvia's energy sector:
strategies for improved security of supply

Thirteen years after independence, Russia remains the most important supplier of fossil fuels to the Baltic states. Their import dependence has declined as a result of lower energy consumption and successful diversification, but the planned closure in 2005 of the Lithuanian nuclear power station at Ignalina, and the adoption of EU legal requirements, will lead in the medium term to dramatic changes in the market for electricity in the Baltic states. Latvia, which imports between 30 and 40 per cent of its energy requirements, will have to address the question of how best to guarantee security of supply in the future.

Vaclovas Miškinis

Abandoning nuclear energy and dependence:
Lithuania's energy supply

As part of the USSR, Lithuania provided a large proportion of the energy supply for the Baltic and for the Kaliningrad region. After independence, Lithuania had to restructure its primary energy system. The country succeeded in reducing its primary energy dependence on Russia by almost fifty per cent and in creating the conditions for integration into the EU's energy market. This development will be endangered if the Ignalina nuclear power station is closed down in 2009. Lithuania therefore needs to diversify both its imports and its energy mix in order to guarantee its future energy supply.

Vladimir Saprykin

Subject or object: Ukraine and gas transit in the EU

Ukraine's transport network for natural gas plays an important role in the supply of gas to the European Union (EU). As a potential object of investment, this network attracts international companies. Russia is the main actor involved today in the creation of a consortium in Ukraine, but the EU states Germany, Italy, and France are also significant actors which could, in theory, invest in the Ukrainian transport network. By doing this they could raise the levels of security and reliability of the EU's gas imports, and so improve the effectiveness of the network. However, these EU states have not yet become involved in the Russian-Ukrainian negotiation process. The Ukrainian actors have adopted a wait-and-see approach. Rather than taking charge of the process of consortium-building on the basis of its property rights legislation, Ukraine is only defending itself half-heartedly against disadvantageous proposals being put forward by Russia. Ukraine should present the parties involved with rules of the game that are advantageous for all sides; the main purpose of these rules should be to improve the working efficiency of the gas transport network.

Jörg A. Walendy

Stability through a network?

Southeast Europe's energy community

Southeast Europe's energy community is attempting something that appears impossible. It wants to secure its power supply and, without any foundations on which to build, to set up a system of regional competition. The most important preconditions required to attain these goals are absent. There are no models to follow, no money is available, and there is not enough energy. Even so, the attempt can succeed if strong regional institutions are able to create a framework that is favourable to integration and competition. This presents the EU with a challenge, since the political stability of and a secure energy supply for Europe as a whole are at stake.

Steven Arons

Purchasing energy from the East:

the role of private economic actors in East Central Europe

Since the end of communism, the main priority of the reform programme in the countries of East-Central Europe has been the privatization of state monopoly enterprises. This presents West European companies with attractive investment opportunities, so it is unsurprising that these companies should be increasingly present in the East-Central European market. This article tries to give as full a picture as possible of the scale of this involvement and to explain why it takes the form it does. In order to do this the article also presents two case studies, of E.ON's East-Central European business and of the Department of Works of the city of Leipzig.

Anna J. Wieczorek, Onno Kuik, Frans Berkhout

Flows of carbon between East and West: between economic efficiency, energy security, and carbon dependence

Russia occupies a key position in European climate policy. Cooperation with Russia offers two policy options to the West European industrialised states which are required, under the terms of the Kyoto Protocol, to reduce their carbon dioxide emissions. Natural gas imported from Russia could be used to replace coal, which produces higher CO₂ emissions. In addition, the EU could buy up the considerable tradeable emission rights allotted to Russia and Ukraine in the negotiations on an international climate convention. If the EU states choose to take up these options, however, they will find themselves in a situation of dual carbon dependence which has considerable potential for conflict.

Ole Gunnar Austvik, Marina Cygankova
On the way to convergence?
Norway and Russia as producers of oil and gas

Over the past decade, Russia and Norway have liberalized their oil and natural gas industries. The two countries' policies in these sectors seem to be converging. Russia has set up a stabilization fund similar to the Norwegian oil fund. There are also growing similarities between the respective market interests and between broad principles of economic policy in Russia and Norway, even though Russia is still the market leader in natural gas. However, because of the major differences in the two countries' geographical situation, size, culture, history, and politics, divergences in the organization of the natural gas and oil industries will remain.

John Hardt
The Russian dilemma:
energy policy and Putin's economic programme

Energy policy is one of the cornerstones of the new economic programme drawn up by President Putin's advisers. However, the president is confronted by a dilemma. The energy sector must carry the lion's share of the costs of economic reform, since income from the energy economy must be redistributed to other sectors. At the same time, putting the programme into practice requires an authoritarian system. If the political leadership has unlimited power, this may lead to tensions between the different interest groups.

Josephine Bollinger-Kanne
Liberalization *à la russe*:
the energy economy as a state function

The elite of the Russian gas, oil and electricity industry is subject to a high level of state control. This reflects the fact that their companies provide one third of Russian industrial production and of the revenues of the consolidated state budget. State control is exercised via the state's shares in these companies and decrees conforming to state interests. It is questionable whether this can be a successful model in the future.

Heiko Pleines, Julia Kuszniir
Who is getting rich?
On the political economy of Russian oilfields

The Russian state continues to own all mineral resources on its territory. The state alone decides who will be allowed to extract oil, where, and for how long. As licences are granted, conflicts regularly arise between the state actors involved at the national and regional levels. At the same time, oil companies frequently try to improve their negotiating positions by means of strategic alliances with the regional administrations. Strong reservations are expressed in the public debate about the "selling off" of national wealth, but in this context such views are more likely to block individual decisions than to place fundamental obstacles in the way of the granting of licences.

Andreas Heinrich

Globalization and corporate governance:

Russia's oil and gas sector in the global economy

When an enterprise becomes integrated into the world economy, it is forced to adopt international standards of corporate governance and so to improve its corporate governance. This article uses three case studies from the Russian oil and gas sector to demonstrate this. In addition, two indices are developed as ways of measuring the degree of internationalization and the quality of corporate governance. The article comes to the conclusion that since the 1998 financial crisis, global factors have had a positive influence on corporate governance in Russia.