

EURACOAL

European Association
for Coal and Lignite
AISBL



International Coal Dialogue: *Quo vadis Ukraine?*

Stability from energy sector
reforms and imported coal

report of a conference organised by the:
Consultative Commission on Industrial Change
&
European Association for Coal and Lignite

Tuesday, 18 November 2014
European Economic and Social Committee, Brussels



1 Summary

At a meeting held in Brussels on 18 November 2014, a dire picture emerged of coal supply in Ukraine where over 40% of electricity generation depends on coal. With production disrupted at coal mines in the East, rail transport unavailable or uncertain, and inadequate coal stocks at power stations, the risks to electricity supply over the coming winter are real and imminent.

The aim of this international coal dialogue was to explore with EURACOAL member DTEK what steps Ukraine is taking to secure its coal supply. The meeting was organised in co-operation with the European Economic and Social Committee (EESC), specifically with the Consultative Commission on Industrial Change (CCMI) which combines over 60 years of experience with such consultative dialogue, gained initially with the consultative committee of the European Coal and Steel Community – the forerunner to the European Union.

Until now, Ukraine has been self-sufficient in coal. In 2013, the country produced over 60 million tonnes and production was maintained during the first half of 2014. However, since June 2014, coal output has been decimated by separatist fighting in the Donetsk and Luhansk regions. Production from 66 coal mines has been lost, with just 60 left in production today. MEP Andrej Plenković, Chair of the EU-Ukraine Delegation, lived through war in Croatia and warned of the destructive consequence if the Minsk ceasefire was not respected. He called on the European Commission to consolidate the peace process.

Imported coal should allow Ukraine to replace lost indigenous production. However, paying for imports has been hit by the dramatic fall of the Ukrainian hryvnia which has lost half of its value in 2014. Nevertheless, DTEK reported that coal from South Africa and Australia was being shipped to Ukraine's Black Sea ports which can handle up to 400 thousand tonnes per month.

A particularly serious problem highlighted at the meeting was the sourcing of anthracite on the international market. High-quality local anthracite is used at around half of Ukraine's thermal power plants. Germany is a producer, but there are few others – Russia being the biggest outside of China. However, the maximum monthly supply from Russia is perhaps 700-750 thousand tonnes – not enough to replace the two million tonnes lost.

Solutions to the short-term coal supply issue will depend on domestic actions and good international co-operation. When faced with a loss of electricity supply following the devastating tsunami in 2011, energy efficiency became a priority in Japan as a way to reduce energy demand. A public information campaign could similarly help reduce energy demand in Ukraine because without more imported anthracite, peak electricity demand will not be met in December 2014. A cold winter would add to the already serious situation in Ukraine. The European Commission has established a Support Group for Ukraine, reporting to President Juncker, and will advise member states as they formulate the EU's response to this emerging crisis.

2 Introduction

In co-operation with the EESC Consultative Commission on Industrial Change (CCMI) and EURACOAL member DTEK, this dialogue explored what steps Ukraine is taking to secure its coal supply. Coal will remain crucial for electricity generation, yet local coal supply is uncertain and imports are costly by comparison.

3 Agenda

Welcome remarks: Mr. Jacques L. Glorieux, Member of Bureau – Former Co-President, CCMI

Speech by Mr. Andrej Plenković MEP,
Chair of Delegation to the EU-Ukraine Parliamentary Cooperation Committee

“Energy in Ukraine – a briefing on current issues”,
Mr. Vitaly Butenko, Commercial Director, DTEK Energy

“Implementing the Community *acquis* in the Ukrainian power sector”,
Mr. Janez Kopač, Director, Energy Community

Discussion chaired by Mr. Brian Ricketts, Secretary-General, EURACOAL with panellists:

Dr. Renata Eisenvortová, EURACOAL representative to CCMI and
European Affairs Manager, Severní energetická a.s. – on the historical perspective

Ms. Ellina Levina, Senior Energy Analyst, Sustainable Energy Policy and Technology Directorate,
International Energy Agency – on the IEA’s short- and long-term view of energy supply in Ukraine

Mr. Andrzej Adamczyk, Member of the European Economic and Social Committee and
President of REX/183 – Eastern European Neighbours Follow-up Committee

Dr. Erich Schmitz, Chief Executive, VDKi – German Coal Importers Association and
Chair of EURACOAL Market Committee – on global coal (*i.e.* anthracite) supply

Mr. Vitaly Butenko, Commercial Director, DTEK Energy

Mr. Torsten Wöllert, Member (Energy), Support Group for Ukraine,
European Commission – concluding remarks

4 Background to the Crisis in Ukraine – key dates in 2013 & 2014¹

21 November 2013	President Yanukovich’s cabinet abandons an agreement on closer trade ties with the EU, instead seeking closer co-operation with Russia. Small protests start.
Late November	Protests gather pace as 100 000 people attend a demonstration in Kyiv.
22 February 2014	President Yanukovich disappears.
23-26 February	Parliament votes to ban Russian as the second official language, causing a wave of anger in Russian-speaking regions. The vote is later overturned.

¹ Based on BBC news reports.

27-28 February 2014	Pro-Russian gunmen seize key buildings in the Crimean capital, Simferopol.
1 March	Russia's parliament approves President Putin's request to use force in Ukraine to protect Russian interests.
28 March	US President Obama urges Moscow to "move back its troops" and lower tensions.
18 March	President Putin signs a bill to absorb Crimea into the Russian Federation.
17 March	The EU and US impose travel bans and asset freezes on several officials from Russia and Ukraine over the Crimea referendum.
16 March	Crimea's secession referendum on joining Russia is backed by 97% of voters.
7 April	Protesters occupy government buildings in the east Ukrainian cities of Donetsk, Luhansk and Kharkiv, calling for a referendum on independence. Ukrainian authorities regain control of Kharkiv government buildings the next day.
15 April	Ukraine's acting President Turchynov announces the start of an "anti-terrorist operation" against pro-Russian separatists. It quickly stalls.
17 April	Russia, Ukraine, the US and the EU agree at talks in Geneva on steps to "de-escalate" the crisis in eastern Ukraine. Three people are killed when Ukrainian security forces fend off a raid on a base in Mariupol – the first violent deaths in the East.
22 April	Ukraine's acting president orders the relaunch of military operations against pro-Russian militants in the East.
11 May	Pro-Russian separatists in Donetsk and Luhansk declare independence after referendums.
25 May	Ukraine elects President Poroshenko in an election that was not observed in much of the East.
25 June	Russia's parliament cancels a parliamentary resolution authorising the use of Russian forces in Ukraine.
30 July	The EU and the US announce new sanctions against Russia.
5 September	Ukraine and pro-Russian rebels sign a truce in Minsk.
31 October	Russia agrees to resume gas supplies to Ukraine over the winter in a deal brokered by the EU.
26 October	Pro-Western parties win Ukraine's parliamentary elections.
2-3 November	Separatists in eastern Ukraine elect new leaders. President Poroshenko accuses the rebels of jeopardising "the entire peace process" and says Ukrainian forces should prepare defences against separatist attack.

5 Welcome Remarks

CCMI Member, **Mr. Jacques Glorieux**, welcomed participants on behalf of CCMI President, Mr. Carlos Trias Pintó. He presented a short history and explained the activities of the Consultative Commission on Industrial Change (CCMI). He recalled that the EU began as the European Coal and Steel Community (ECSC) with six countries (Belgium, France, Italy, Luxembourg, the Netherlands and West Germany). As the direct successor of the ECSC consultative committee, the CCMI is the oldest EU body devoted solely to the future of industry and now deals with industrial change across a wide range of sectors, including coal mining. The CCMI comprises 48 EESC members plus 48 delegates divided into three groups: employers, employees/trade unions and “various interests” who represent civil society and consumers.

MEP Andrej Plenković, Chair of the Delegation to the EU-Ukraine Parliamentary Cooperation Committee, addressed the wider context of EU-Ukraine relations. He noted that as of 1 November 2014, the EU had a provisional Association Agreement.² This will result in a change of status of the Cooperation Committee which will become the EU-Ukraine Parliamentary Association Committee.

Elections held on 26 October were observed by the EP Delegation and despite the extremely difficult situation in the country, the illegal annexation of Crimea by Russia and ongoing aggression, the elections were evaluated as having been conducted in line with international standards, which means that no significant irregularities were observed.

Mr. Plenković (pictured right) believed that Ukrainians had voted for change based on two objectives:

- A pro-European orientation with policies for reform. In light of this, the European Commission set up the Support Group for Ukraine.³
- A strategic choice for peace, rather than the current situation which is generating high financial and social costs.

In his view, Ukrainians are in a similar situation to the one that Croatia experienced 23 years ago. He underscored the need for stronger international engagement.



On energy security, Mr. Plenković acknowledged the importance of gas supply and the price of that gas. Here, the situation is under control as appropriate agreements had been signed following negotiations with Gazprom, Naftogaz and others.

Now, the problem was with coal as most of Ukraine’s mines are situated in the East of the country where the government is no longer in control. This has become a pressing issue for the new government as a plan for coal supply must be implemented. As renewable energy sources are not significant in Ukraine, the only choice at the moment is to sign concrete agreements for coal imports.

From the political perspective an international donors’ and investors’ conference for Ukraine is under discussion. According to Mr. Plenković, more than eleven billion euros were already mobilised, but that will not be enough as the consequences of the crisis in Ukraine will remain for a long time. The situation in Ukraine will not be solved in one day, he concluded, but it will be through a process of transition.

² Provisional application of important parts of the EU-Ukraine Association Agreement – negotiated between 2007 and 2012 and signed by Ukraine and the EU on 27 June 2014 – began on 1 November 2014. The Association Agreement will be a key instrument for carrying out the much-needed reforms in Ukraine in the years to come, with EU support.

³ This Support Group will provide a focal point, structure, overview and guidance for the Commission’s work to support Ukraine. It will also help mobilise member states’ expertise and further enhance co-ordination with other donors and the International Financing Institutions.

6 Presentations⁴

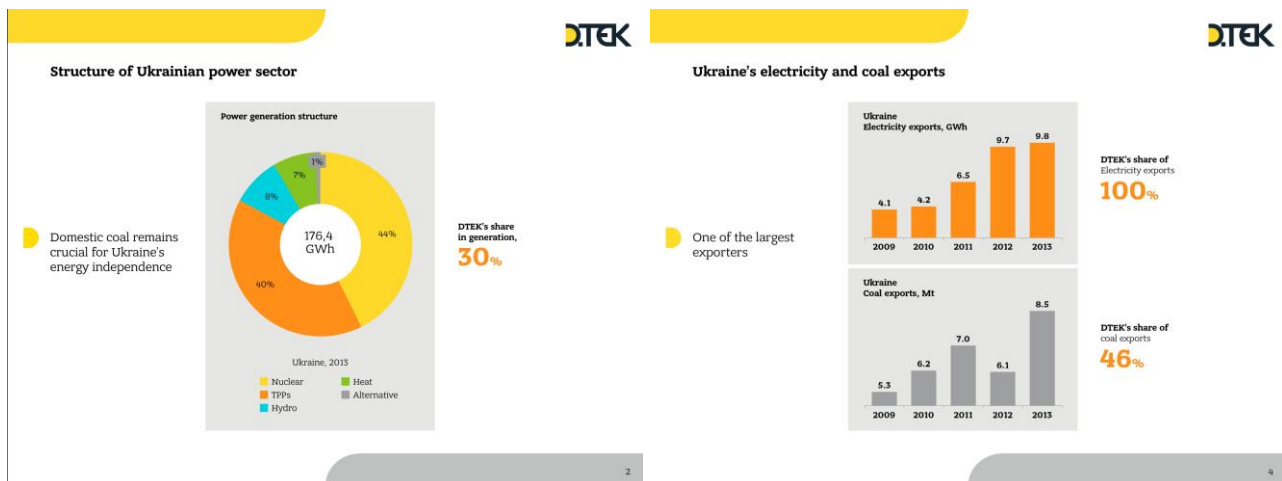
6.1 “Energy in Ukraine – a briefing on current issues” Mr. Vitaly Butenko, Commercial Director, DTEK Energy

Vitaly Butenko (pictured on the left with John Woodham, Deputy Commercial Director at DTEK) noted that little attention had been given to coal supply in Ukraine which was surprising as coal is a matter of national security and wellbeing. The structure of Ukraine’s power sector is typical for a post-Soviet country: installed thermal power plant (TPP) capacity holds fifth place in Europe with plants that operate on locally produced coal, whilst nuclear power plants rely on fuel from Russia.



As far as coal and electricity exports are concerned, DTEK is one of the largest Ukrainian energy traders. DTEK’s coal is consumed by power plants and industrial companies in Europe, Asia, North and South Americas, and Africa. DTEK supplies electricity to Hungary, Slovakia, Romania, Poland, Moldova and Belarus. While most of the country is synchronised with Russia, Burshtyn Island is synchronised with the European system. The trend before the crisis was one of steadily growing energy exports.

The crisis hit the coal industry hard. Mines which produced anthracite are either disabled or lie inside blockaded areas. The crisis has cut almost all anthracite for energy production. The trend from June/July to September was of a growing security gap: the reduction of anthracite stocks by 92% shows that any safety margin has evaporated. The gap of up to 9 GW in power capacity covers 8-12 industrial regions and creates the possibility of blackouts for residential consumers. The government has informed Ukrainian companies, including DTEK, that under no circumstances should they interrupt electricity supply to consumers. Unfortunately, this may be inevitable.

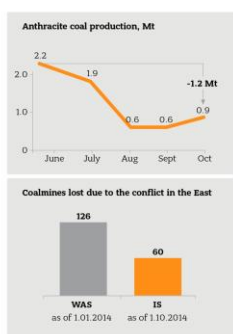


Ukraine has few options for coal imports, as a very specific anthracite quality is required. Russia produces 3 million tonnes per month, but can deliver to Ukraine only 700-750 thousand tonnes per month; Ukraine needs 1.2 million tonnes. Other options are South Africa and Australia. Seaport capacity allows Ukraine to import up to 400 thousand tonnes per month. To date, 1.0 million tonnes of coal has been bought in from South Africa. This volume will be brought in shipments, with the first already on its way in November 2014. DTEK has also bought a shipment of coal from Australia to check if it could be suitable for import.

⁴ Full presentations are available on the EURACOAL website (www.euracoal.org): only a selection of slides is included in this report.

What happened

Coal industry was negatively affected by events in Donbass

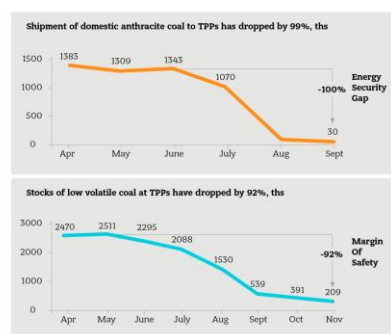


DTEK's share of coal production, Aug-Oct 2014
76%

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What happened

Coal industry was negatively affected by events in Donbass



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The situation is becoming more difficult as Ukrainian exports fall which creates economic issues and a trade imbalance. Pre-payment is now demanded for coal imports, because letters of credit are no longer available.

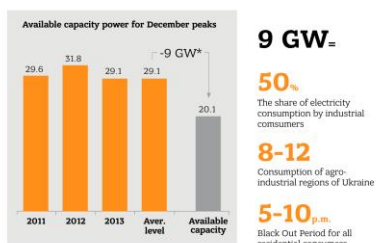
Looking to the future, Ukraine's energy sector seeks a way out of the crisis by:

- Securing peace – should bring stability to coal supply, including diversification of imports.
- Securing coal – necessary for power optimisation, including a shift to steam coal.
- Securing money – will require a financial balance (TPPs tariff increases and debt repayments).

DTEK itself is currently experiencing limitations for its financial resources and is searching for ways to get through the coming winter, Mr. Butenko concluded.

What happened

Power capacity gap

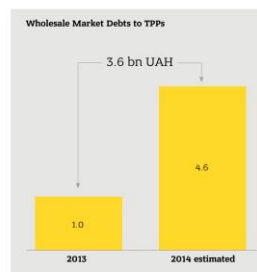


* Without impact of anthracite

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What happened

Financial Gap



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6.2 “Implementing the Community *acquis* in the Ukrainian power sector” Mr. Janez Kopač, Director, Energy Community

Janez Kopač, Director of the Energy Community in Vienna, began with Ukraine's membership of the Energy Community.⁵ This was a landmark in the country's commitment to European values and the rule of law. In return, Ukraine can expect to benefit from the aims of the Energy Community:

⁵ Energy Community is about investments, economic development, security of energy supply and social stability; but also about solidarity, mutual trust and peace. The very existence of the Energy Community, only ten years after the end of the Balkan conflict, is a success in itself, as it stands as the first common institutional project undertaken by the non-EU countries of South East Europe.

- Attract investment in power generation and networks in order to ensure stable and continuous energy supply that is essential for economic development and social stability.
- Create an integrated energy market allowing for cross-border energy trade and integration with the EU market.
- Enhance security of energy supply.
- Improve the environmental situation in relation to energy supply in the region.
- Enhance competition at regional level and exploit economies of scale.

Mr. Kopač welcomed the steps already taken, but pointed to many areas where the Ukrainian government needed to speed up progress and to maintain a consistent approach that would encourage investment for the long term. Although Ukraine has implemented some of the Community *acquis* in its power sector, there is still work to be done. For example, the Third Package on electricity/gas will not be implemented in Ukraine by 1 January 2015 and other legislative work is similarly behind schedule.

The common legal framework



- ▶ Gas (Third package) (2 Directives, 2 Regulations)
- ▶ Electricity (Third package) (2 Directives, 3 Regulations)
- ▶ Environment (5 Directives)
- ▶ Competition (some provisions of the Treaty)
- ▶ Renewable energy sources (RES Directive)
- ▶ Energy efficiency (3 Framework Directives, 9 Technical Regulations)
- ▶ Antitrust and state aid (some provisions of the Treaty)
- ▶ Statistics (1 Directive, 1 Regulation)
- ▶ Oil (1 Directive)

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Main upcoming legislative work



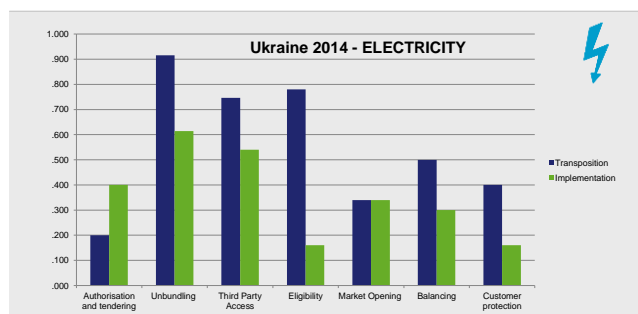
- Energy Statistics – by 31st December 2013**
- Directive 2009/28 on Renewables – by 1st January 2014**
- Third Package on electricity / gas – by 1st January 2015**
- + missing rules from "Second Package" was due for 1st January 2012
- Large Combustion Plants Directive – by 31st December 2017**
- Sulphur in Fuels Directive was due for 31st December 2011 !!**
- Energy Efficiency was due for 31st December 2012!!**
- Oil stocks – by 1st January 2023**

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The Energy Community's "Implementation Report" gives an overview of how different aspects of the *acquis* are being introduced and shows that full implementation of the Second Energy Package can only be envisaged by 2017. For the moment, authorisation of new generation capacity; third party access to infrastructure, eligibility to switch supplier, market opening and price regulation as well as market balancing are still to a large extent not compliant. Eligibility of customers for switching supply is missing rules and, in practice, there is very little switching and only under NERC approval. Third party access to transmission and distribution networks has improved with the new Electricity Law, but already needs updating. There are missing provisions on exemptions, refusals and appeals. Cross-border allocation rules have progressed – except for some serious shortcomings which are the subject of an infringement procedure (contract with Energorynok, rules on cross-border capacity allocation, none participation of eligible customers, etc.). For the moment, one company is always winning open tenders, Mr. Kopač observed. Priorities now include the unbundling of Ukrenergo and Oblenergos, tariff reforms and transposition of the Third Energy Package for which the Energy Community secretariat has submitted a compliant electricity law to the Ukrainian Energy Ministry in September 2014.

Implementation of Electricity acquis



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Implementation Report Conclusions – Electricity (2)



Priorities:

- Unbundling of Ukrenergo and Oblenergos
- Tariff reform (a broad **deregulation** is needed across the sector)
- Abandoning market model (Energorynok)
- The **Third Package** needs to be transposed in due time - **The Secretariat has submitted a Third Package-compliant electricity law to the Energy Ministry in September 2014**
- Required **secondary legislation** to be developed and adopted
- NERC and Ukrenergo to adopt rules on cross-border capacity allocation compliant with the *acquis* (open infringement procedure)
- Transposition of the Third Energy Package – **The Secretariat has submitted a Third Package-compliant electricity law to the Energy Ministry in September 2014**

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Although transposition of electricity *acquis* in Ukraine did not reach targets of the Second Package, the Energy Community secretariat realises that when Ukraine joined the Energy Community in 2011, the rules mean that it would have to introduce the package basically simultaneously with joining, so there is some understanding for Ukraine's situation.

The current Gas Law is not fully compliant with the Third Package – rules on unbundling, third party access, tariff principles, NERC competences and price regulation need to be implemented. Although a gas market previously existed, the government introduced Decree 596,⁶ which is set in place until February 2015. For authorisation procedures, legislation relevant to the whole energy sector is fragmented: NERC licenses gas undertakings, but the issuing of licences on an objective and non-discriminatory basis is not in place. The Energy Community secretariat submitted a Third-Package compliant gas law in April 2014, but no progress has been seen to date. Although it should be implemented by the end of December 2014, the Ukrainian Ministry for Energy has not yet replied or commented. The deadline for implementation of the Directive on maintaining minimum stocks of crude oil and/or petroleum products is set for January 2023. Like elsewhere, it will be very costly for Ukraine (€2.5 billion).

On the subject of renewables, Ukraine is not compliant with the EU *acquis*. In fact, Ukraine has some of the highest prices for solar power in the world. A binding target of 11% of RES in gross final energy consumption by 2020 (up from 5.5% in 2009) is yet to be transposed into national law. The requirement for “local content” is of concern to the Secretariat and an infringement procedure is being prepared.

According to Mr. Kopač, the Large Combustion Plants Directive is not respected by DTEK and others. A request for postponement was submitted, which is understandable given the current situation, but there is a need to plan for further actions with a detailed modernisation programme. For new plants, the Industrial Emissions Directive must be implemented by 1 January 2018.

Implementation Report Conclusions – Environment



- Environmental Impact Assessment Directive – **not fully implemented** (new law currently pending)
- The Sulphur in Fuels Directive - **not transposed**; Both the thresholds and the rules on sampling and analysis are not in line with the Directive. Roadmap adopted in 2012 with deadlines up to 2017 not in line with Accession Protocol (open infringement procedure)
- Preparations to implement the Large Combustion Plants Directive (draft National Emission Reduction Plan) are ongoing; **deadline: end 2017**
- Ministerial Council decision in 2013 on the implementation of the Industrial Emissions Directive (more stringent successor of the Large Combustion Plants Directive); **deadline - 1 January 2018 for new plants exclusively**

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Ukrainian peculiarities



- **Governmental Decrees interfering into laws**
 - **Abolition of institutions when changing the management**
 - **Weak Ministry of Coal and Energy**
 - **Interruption of legislative processes following personal changes**
 - **Lack of coordination among institutions**
 - **Favouring of strategies, not laws**
 - **Overlapping of laws without repealing provisions**
- but**
- Respect of institutions and rules + true will to follow European values**

Energy Community Secretariat

Euracool: Quo vadis Ukraine?

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Among the biggest of Ukraine's “peculiarities”, Mr. Kopač mentioned a problem concerning the independence of regulatory institutions, citing the recent example of Mr. Poroshenko's arbitrary dismissal of many staff.

Mr. Butenko replied that there are ongoing discussions with the new regulator who takes a very aggressive stance against DTEK, believing that the company is too big and too strong. Yet, he believed that Ukraine needs a strong government, strong regulators and strong companies. The state-owned companies did not produce as promised, so it was left to others to deliver, including DTEK. On the issue of exports, there is an understandable desire for more exports, but Mr. Butenko warned against allowing disreputable companies exporting to the EU. Concerning auctions and tenders, President Yushenko introduced these and DTEK was certainly aggressive on price, he said, but always welcomed competition.

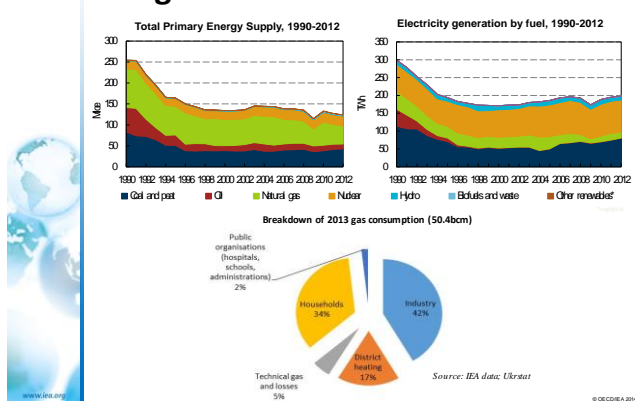
⁶ In the recently adopted Decree no. 596, the Cabinet of Ministers re-introduced the legal monopoly of the state-owned Naftogaz of Ukraine over gas imports and supply in the country without providing a proper explanation of the reasons for such market intervention. The Decree is valid until 28 February 2015. In a letter sent to Prime Minister Yatseniuk, Director Kopač made it clear that this Decree raises serious concerns in terms of compliance with the Energy Community Treaty. The Cabinet of Ministers was requested to provide the Secretariat with an explanation for the measures taken, not later than 20 November 2014.

He explained that DTEK was not against reforming the power sector and not against introducing market rules – the company welcomes transparency. Thus, it was time to sit at the table and have a discussion. Perhaps nobody would leave the table completely happy, but at least some things would be agreed and progress made, he said.

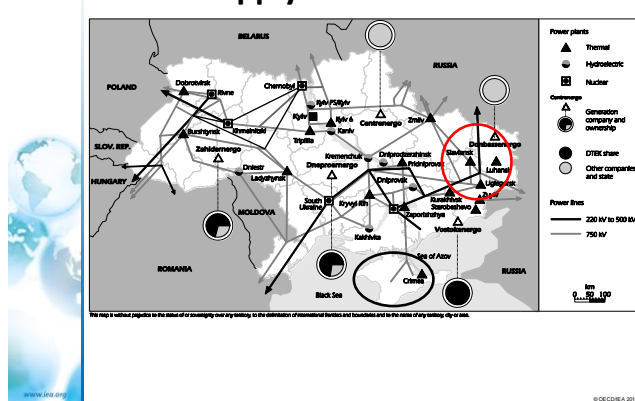
6.3 “The IEA’s short- and long-term view of energy supply in Ukraine” Ms. Ellina Levina, Senior Energy Analyst, Sustainable Energy Policy and Technology Directorate, International Energy Agency

After independence in 1990, Ukraine’s energy demand fell with the closure of some of the most energy-intensive industries, although Ukraine remains one of the most energy-intensive economies in the region. Today, coal and natural gas are the most important primary energy sources. Demand for coal had been rising as indigenous supply offers security benefits compared with imported gas. Households depend on gas for heating, so any interruption is quickly felt. Ukraine’s major gas pipelines lie outside the conflict zone in the East and transit supply to the EU is considered secure. Although gas imports from Russia have decreased, an agreement was reached with Gazprom for supply until 31 March 2015, plus some reverse gas imports from the EU and possible incentives for domestic gas production will improve supply security.

Ukraine energy balance: key role for gas and coal



Power plants by type and the issue of coal supply

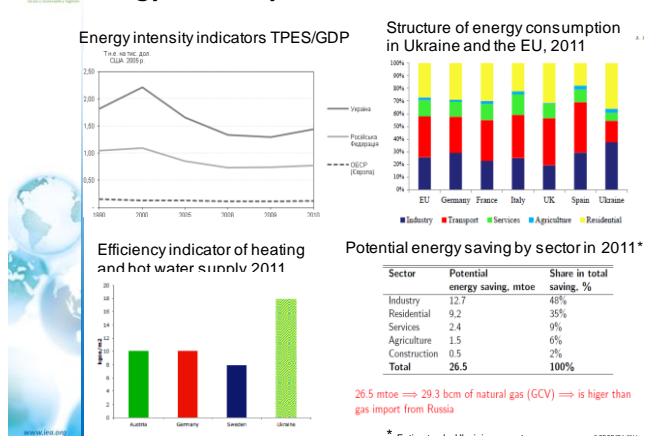


The country faces many challenges: a 6.5% fall in GDP is forecast for 2014; devaluation of the Hryvna; growing deficits at Naftogaz and others who import energy; rising public debt; destruction of infrastructure in the East; multiple energy supply crises (gas, coal and electricity); and the need to spend more on defence from falling tax revenues. Against this bleak picture, some positive trends can be seen: financial assistance (IMF, EU, US, World Bank); progress with structural reforms; competitive currency; and a positive trade balance.

Coal production in Donbass disrupted, coal-fired power generation partly shut down



Energy Efficiency – PRIORITY fuel for Ukraine



The potential to improve energy efficiency is huge – equivalent to all current gas imports. In residential buildings, energy use is double that of similar countries. Energy efficiency measures would be the quickest and cheapest way to strengthen energy security. Energy-saving measures could also be an effective emergency response in the short term – as witnessed in Japan in the aftermath of the 2011 earthquake where public information campaigns on how to reduce energy consumption were crucial. Indeed, the Ukrainian government has already taken some dramatic short-term measures which have seen monthly gas demand reduce by around 4 bcm:

- reducing average heating temperature: -2°C;
- electricity cuts: 09.00-11:00 and 20.00-22:00;
- hot water cuts in major cities including Kyiv;
- mandatory gas saving by industry;
- tariff incentives to switch away from individual gas boilers and support for electric heat storage boilers; and
- improving payment collection by district heating companies and taking legal action on arrears.

In the longer term, full implementation of energy market reforms will be necessary. However, the most pressing issue is that regulated tariffs for the residential sector need to increase (while targeted support could be offered to those in need) – they are not sufficient to reduce financial losses at energy companies. For example, the difference between the EU gas import price and household gas price is c.3 200 UAH/kcm – even more in the case of Russian gas imports which are over 5x more than residential tariffs.

The infographic is divided into two main sections. The left section, titled 'Long-term - Energy market reforms', lists several key areas: 'Mandatory heat, hot and cold water metering by 2017', 'Information campaigns', 'Reformed tariffs' (including reduced subsidies, targeted payments to low-income population, and demand side management), 'Incentives for Renewable Energy - Reforming green tariffs' (developing bioenergy potential), 'Promote domestic gas production through privatizations and gas sector restructuring', and 'Coal industry reforms' (mining sector re-evaluation, coal-fired power plants efficiency and environmental issues, and coal gasification). The right section, titled 'Key messages and conclusions', is split into 'Demand side' and 'Supply side'. The 'Demand side' includes: 1. Inform the public on possible shortages, what people can do to cut demand, and government actions for short-term crisis and long-run planning; 2. Prioritize Energy Efficiency with information and incentives; 3. Start moving towards market tariffs while preserving subsidies for targeted protection and support for those in need (retired, low-income population). The 'Supply side' includes: 1. Incentivize domestic gas production; 2. Diversify energy sources – incentivize Renewables!; 3. Prioritize industrial and power plant Energy Efficiency; 4. Start moving towards fair market rules.

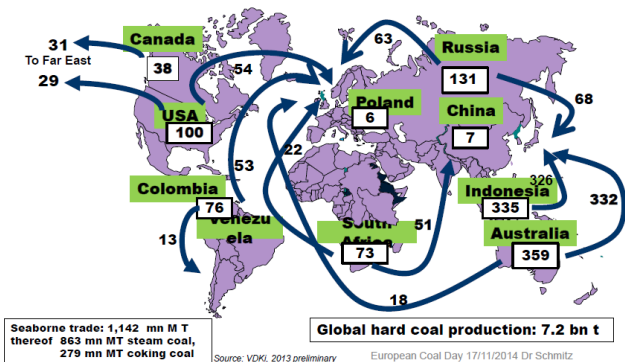
In conclusion, taking into account the current supply-demand situation and providing that the coming winter is not too cold in Ukraine, the country should manage. The coal industry must wait for the situation to stabilise. Of the mines destroyed, some can be re-opened while other will need to be abandoned. Above all, the international community should not only talk about which policy measures to introduce in Ukraine, but also discuss political culture. Most politicians and high-level government officials were educated to function in an entirely different system of governance and decision-making from the one envisaged through the energy-sector reforms now proposed.

6.4 “Global anthracite supply”

Dr. Erich Schmitz, Chief Executive, VDKI – German Coal Importers Association and Chair of EURACOAL Market Committee

Dr. Schmitz began by noting that Ukraine’s coal supply problems were related to the type of coal used by its electricity sector. Many power plants in Ukraine use “anthracite”, a low-volatile (<10%), high fixed-carbon (>80%) coal with low ash content and a high calorific value (27 MJ/kg). This is the best class of coal available anywhere in the world.

Main trade flows in seaborne hard coal trade 2013 in mn M t

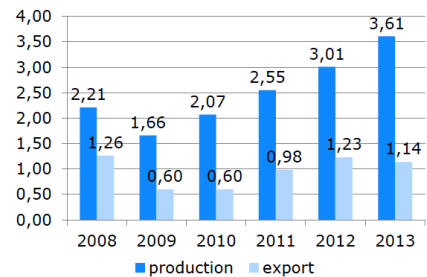


Source: VDKI, 2013 preliminary

European Coal Day 17/11/2014 Dr Schmitz

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South Africa: Anthracite coal production and exports in m T



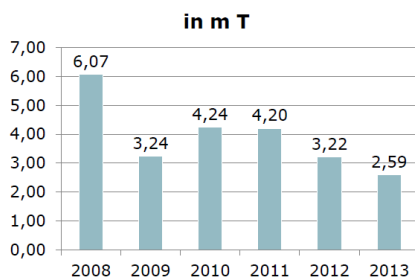
5th European Coal Day 17/11/2014
Dr Schmitz

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Collecting data on anthracite is difficult. Global demand is just below 200 million tonnes of which more than 162 million tonnes is in Asia and 90% of that demand is in China. European demand reaches only 13 million tonnes.

The possibilities to import into Ukraine are limited. South Africa extracts anthracite from mines such as the Zululand Anthracite Colliery (formerly BHP), but annual production capacity allows for only up to one million tonnes for export. Then, there is Vietnam with 12.8 million tonnes of exports, but its anthracite has a low calorific value, is used mainly in China due to the short distance to the Chinese border and would only be suitable for blending. Moreover, Vietnamese government policy is to reduce exports as local demand for coal is growing. After Vietnam, the main anthracite producers are Russia and Mongolia, the latter being out of the question for supply to Ukraine as transport costs and inconvenient logistics make this option unattractive.

China: Anthracite coal exports

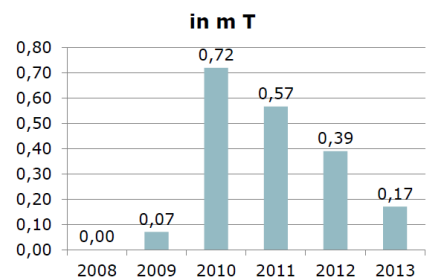


5th European Coal Day 17/11/2014
Dr Schmitz

Source: CCR

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Australia: Anthracite coal exports



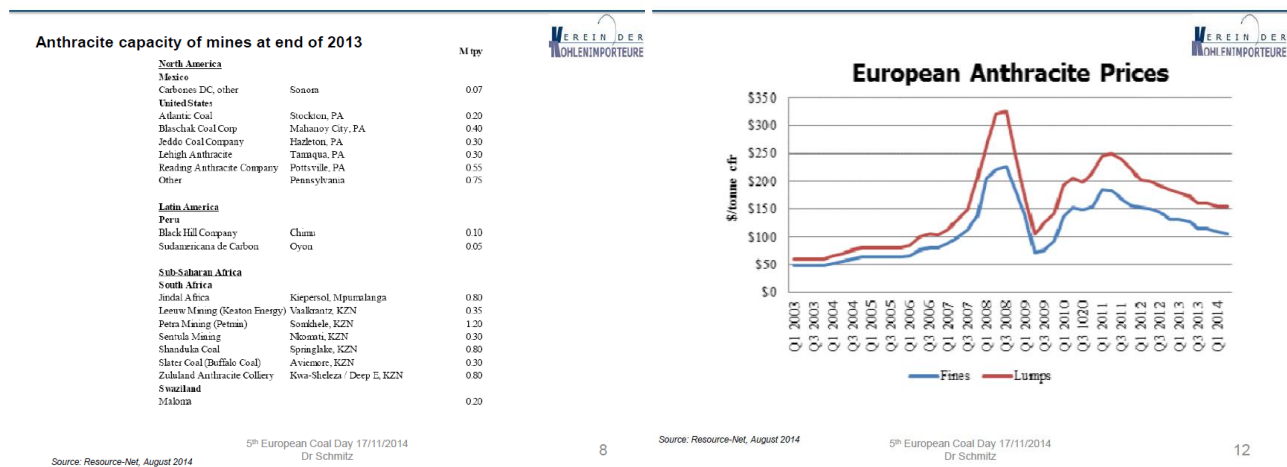
5th European Coal Day 17/11/2014
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Ukraine is the world's third largest anthracite producer – 15.5 million tonnes in 2013 mainly from the disputed Donbass region where there are seven major anthracite mines. Rovenki and Sverdlov are by far the largest and their combined output accounts for 70% of total anthracite production in Ukraine. They are operated by DTEK under a concession agreement with the government. The question now is whether the company will be able to maintain the mines during the crisis, since rising water levels at inactive mines can lead to permanent and irreparable damage.

Germany imports 1.4-1.5 million tonnes of anthracite for the steel industry, mainly from Russia. Dr. Schmitz warned that salt content is important for many users: the high levels found in German anthracite from the Ibbenbüren mine can destroy some types of boiler in power plants.

Anthracite prices are higher than for bituminous coal: e.g. currently \$70-80/t (6 000 kcal/kg) FOB South Africa. In an emergency situation, such as in Ukraine, companies will always demand premium prices and pre-payments.



There are few alternatives for anthracite supply to Ukraine. Colombian high-volatile coal does not fulfil Ukraine's quality requirements. Although the US only produces around 2 million tonnes of anthracite each year, certain high CV, low-volatile coals from the US might be suitable. Dr. Schmitz recommended that test runs be carried out after careful blending, an approach that had worked in Germany after power plant boilers were converted to fire international coal instead of German hard coal. Beyond that, there is really no other option except anthracite from Russia. Looking at import logistics, the Black Sea ports at Odessa will clearly be important, he concluded.

7 Panel Discussion

EESC Member and President of the Eastern European Neighbours Follow-up Committee, **Mr. Andrzej Adamczyk**, enjoyed well-established contacts with trade unions and other partner organisations in Ukraine. These contacts had confirmed to him that mines in the East were flooded as essential care and maintenance was no longer possible. Miners and others from the energy sector in eastern Ukraine, including board members, were being threatened, kidnapped and even killed. Those travelling by car through Donetsk risked being stopped and searched, with trouble for those carrying even a few sheets of literature deemed to be inappropriate.



Janez Kopač, Director, Energy Community & Ellina Levina, IEA

Mr. Adamczyk noted that while this was not the first aggression by Russia on sovereign territory, it was the first time that land had been forcibly annexed, thus bringing into play the Budapest Memorandum, signed by Russia, the US and the UK in 1994. Civil society appears divided between Ukrainians and Russians, creating a huge gap in society that fuels the crisis. On the one hand, the Maidan protests in Kyiv that began in November 2013 were the longest-ever pro-European demonstration. On the other hand, a big media campaign in Russia speaks of a strong US and European military presence in Ukraine.



Erich Schmitz, VDKi; Torsten Wöllert, EC & Andrzej Adamczyk, EESC

At the political level, implementation of the Association Agreement is ongoing. Next year, there must be serious discussion on the *acquis communautaire*, otherwise Ukraine will lose this window of opportunity, he said. This is backed by NGOs and think tanks who are very active in Ukraine, unlike trade unions and employers who have lost much of their credibility over the years.

Finally, the EU keeps repeating that accession of Ukraine is not on the agenda, but the government should use the enthusiasm of the Ukrainian people and implementation of the Accession Agreement to introduce reforms, he concluded.

Mr. Butenko agreed that flooding of mines was a problem: of the 126 mines operating at the start of 2014, only 60 remained operational. The majority of mines are state-owned while DTEK owns two (DTEK Komsomolets Donbassa and DTEK Sverdlovanthracite), the second still operational. DTEK put a considerable effort into keeping its mines operational, despite physical damage from shelling. Deploying a minimum level of workers, the company tried to bring its mines back into production by pumping water out and other repairs, but after more shelling, casualties and even deaths, this became impossible.

In reply to a question from the Commission on what would happen to the mines in Donetsk once peace was established, Mr. Butenko explained that some will have to be shut down since the damage and losses were now too great. He reflected that the state-owned mines were very inefficient and fertile ground for corruption. Sustainable economic solutions were needed, he believed, but survival through the winter had to be the priority. In future, the coal industry structure in Ukraine would be different. Infrastructure investments were needed to improve productivity and in that respect German mining technologies could help to revive the coal industry in Ukraine. DTEK is also aware that environmental investments are needed and Mr. Butenko noted that a methodical approach to this was missing in Ukraine.

Mr. Dmitry Semenov, First Secretary (Energy), Mission of Russia to the EU, referred to the political aspects of the issues touched upon by other participants. He underlined that Russia has always argued for a political solution to the crisis in Ukraine. He denied the presence of the Russian armed forces in eastern regions of Ukraine, admitting though that there are volunteers amongst the rebels – not only from Russia, but also from other countries, including EU member states. He disagreed that Crimea's joining Russia was an example of changing borders in Europe by force, as the decision of the region to proclaim independence and join the Russian Federation was taken by a democratic referendum. He pointed to Kosovo as a real example of changing borders in Europe with foreign military interference and grounded only by a decision of the local parliament; he reminded participants that Russia has always argued that Kosovo set a dangerous precedent by violating the core principles of international law, *e.g.* inviolability of frontiers and territorial integrity.

He added that Russia observes its commitments to respect the borders of Ukraine, but explained that Crimea is no longer a part of this state and that the commitment to respect borders does not mean that Russia was obliged to force territories proclaiming independence back to a country they do not want to be in, against the will of the people of such territories. He also mentioned other examples of "Soviet-design" countries changing borders, *i.e.* Czechoslovakia, Yugoslavia (down to the most recent "divorce" of Serbia and Montenegro), USSR, Georgia, *etc.*, stressing that internal political developments in the "newly" emerged countries could be very dynamic and needed to be handled very cautiously to avoid major political crises with far-reaching effect.

He stated Russia's position that the solution to the conflict in Ukraine lies in the restoration of the political dialogue between the sides of the conflict (Kiev and the rebels) with due respect from the central government to the rights and the identity of their Ukrainian fellow countrymen living in the eastern regions. He disagreed with the attempt of a previous speaker to contest the notion that "Eastern Ukraine is economically maintaining Western Ukraine", presenting figures for the significant foreign trade surplus of the Donetsk region and the large deficit of Kiev. He expressed his belief that ignoring these regional "peculiarities" in Ukraine and trying to promote a very narrow ethnic concept of the Ukrainian nation was the underlying reason for the conflict.

He admitted that helping Ukraine by supplying Russian coal to its central regions might get public criticism in Russia, but expressed his belief that given the gravity of the situation in the country and close relationship between Russia and Ukraine this option could well be considered.

Dr. Renata Eisenvortová, representing EURACOAL member ZSDNP, recalled that a common market in coal and steel were the very basis of the European Union after World War II. Control of these resources had been one of the reasons for conflict. In 2010, Jerzy Buzek and Jacques Delors called for the creation of an “Energy Union”, in a similar spirit of solidarity. The new European Council President, Donald Tusk had reignited their call and it seems that an approach developed 60 years ago to build Europe on a common energy market is once again needed. Given that 80% of EU energy reserves are in the form of coal and lignite, Dr. Eisenvortová cautioned against an EU climate policy that denies access to our own coal and lignite resources.

Mr. Torsten Wöllert, Member (Energy) in the Support Group for Ukraine at the European Commission, expressed his gratitude to Mr. Butenko for travelling to Brussels to present information on the Ukrainian coal industry. He agreed that a priority was to secure the supply of coal for the energy market in Ukraine.

Discussing the current situation in Ukraine, he noted that control of coal mines is divided between the government and separatists, with DTEK in control of its own mines. In the near future, the supply of Donbass coal could come via Russia, but there are significant logistical hurdles. The separatists are refusing to allow any shipments of coal to Ukraine, therefore an indirect route could be via the Russian rail network. However, this has so far not been allowed from the Russian side and indications that coal imports from Russia (Kuzbass) may also experience problems are not encouraging. In the mid-term, the Commission is not expecting any quick and easy solutions over the next few months.

He thanked previous speakers who had mentioned the Energy Union: the concept of solidarity was not limited to the EU. Indeed, the European Commissioner for Energy Union, Maroš Šefčovič, made Kyiv one of his first visits in his new position, giving a signal of support from the EU. Mr. Wöllert explained that the Commission’s efforts are geared towards collaboration with neighbours and not creating isolated islands. Therefore, the rules agreed with international partners must be respected. Moreover, a stable regulatory system would give confidence to investors, which would be to the long-term benefit of Ukraine. Without rules or with ever-changing rules, there will be no investors, he observed.

On a point of critique aimed at the Ukrainian government, he called for deeper stakeholder consultation in the spirit of an open society and according to EU standards. Therefore, not only well-known and respected experts should be invited, but a wider group of stakeholders who can engage with the issues facing the energy sector.

Finally, Mr. Wöllert concluded that despite the general impression within the European institutions only a couple of weeks previously that natural gas was the issue in Ukraine, the real problem now is with coal.

8 Participants

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TAYLOR, Derek, Director, DMT Energy Consulting

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VITELLI, Alessandro, Reporter, Bloomberg News

WÖLLERT, Torsten, Member – Energy, Support Group for Ukraine, European Commission

WOODHAM, John, Deputy Commercial Director, DTEK

ZVOLIKEVYCH, Anna, Brussels Representative, DTEK

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