Where Politics and Markets Meet

EUROPEAN ENERGY REVIEW

TOP STORY
The EU's electricity and gas industries: why are we in this mess and what can be done?

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CONTROL AND AUTONOMY: A DIFFICULT MARRIAGE

By Ben Warner - editor-in-chief

However much energy situations differ on the national level, the market problems show a lot of similarities. See Edward White's overview of the electricity market in New Zealand, which is marred with uncertainty.

One of these resemblances is the relationship between companies and governments. Companies reject a high degree of meddlesomeness, governments want to stay in control all the way. Sometimes it looks like a dog and cat fight with the customer-citizen mice in the middle, whom both parties say they love and are servicing. Maybe the two sides should transcend their working level and start talking on a higher stratum to find harmony in long term challenges that concern all and then descend to the problems of today instead of creating and maintaining a quarrelsome situation fuelled by actual irritations.

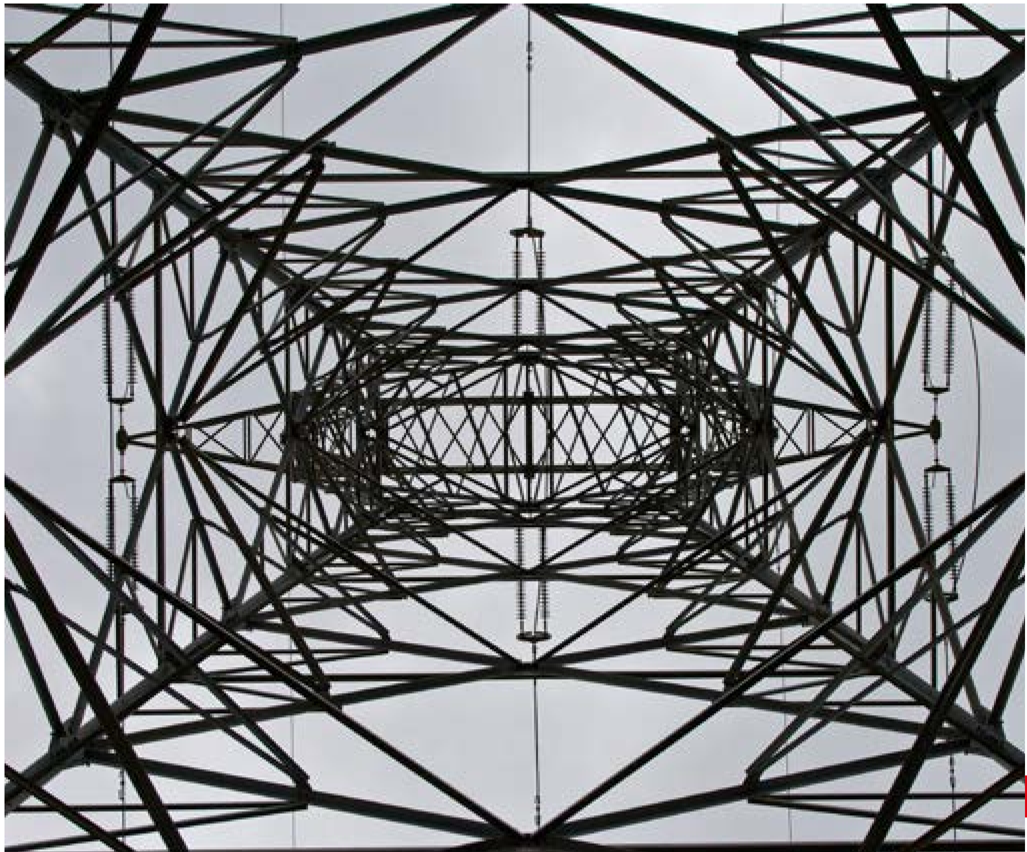
Paul Hunt addresses the mess - as he calls it - in his long article of the month about the EU's electricity and gas industries. He is coming up with his own solution to clear the skies. The qualities of the use of biomass are put forward by our Polish writers Leszek Jesien and Michal Kurtyka, presenting an optimistic opinion on the advantages of modern waste management. Jozef Badida leads us in the complicated world of unbundling: a detailed story about woods and trees. And finally Luca Oreskovic points to the tension between Russia and Serbia, related to a growing confidence in the latter.

We will see in the next two months how countries are struggling on the long road to a sustainable future.

The EU's electricity and gas industries:

Why are we in this mess and what can be done?

People are complaining more and more about 'information overload'. Sometimes, indeed, it appears to be 'misinformation (or disinformation) overload'. And the processes governing daily life are becoming more complex and being developed and applied increasingly remotely from the vast majority of citizens. Nowhere is this increasing complexity and remoteness of decision-making more obvious than in the long drawn-out efforts to complete the EU's internal markets in electricity and gas.



By Paul Hunt

Reasserting the "four freedoms"

The increasing complexity and remoteness of decision-making is imposing unnecessary, excessive and unjustified costs on final consumers and on the EU economy. It makes sense on occasion to return, as it were, to 'first principles'. The page on the web-site of the European Commission (EC) that deals with the single market sets out some basic governing principles:

"The cornerstones of the single market are often said to be the "**four freedoms**" - the free movement of **people, goods, services and capital**. These freedoms are enshrined in the EC Treaty and form the basis of the single market framework. But what do they mean in practice for everyone in the EU?

Individuals: the right to live, work, study or retire in another EU country

Consumers: increased competition leading to lower prices, a wider choice of things to buy and higher levels of protection

Businesses: much easier and cheaper to do business across borders"

Those of us who are more advanced in years remember the earlier manifestation of the EU as the European Economic Community. The focus then was on defining, developing, applying and enforcing these "four freedoms". And this focus was grounded on solid foundations in both the theory and practice of economics and political economy. A broad consensus existed that a mixed economy with genuinely competitive markets generated outcomes that were economically and socially superior to any alternatives that might be available or could be considered. This did not mean that the nature of the political economy that was built on these foundations went uncontested. There has always been, and continues to be, fundamental conflict in the political sphere - that, fortunately, more often than not is mediated by the democratic process - about the role of the state relative to the private sector and the location of the boundaries between the state and the market. And this conflict is often accentuated when 27 nation states are required, increasingly, to pool elements of their national sovereignty to achieve policy objectives agreed by all in their common interests.

With the passage of time it appears that the focus on these "four freedoms" has become blurred. But the continuing baleful impact of the Great Recession is encouraging a sharper focus on these 'first principles'.

Following an earlier initiative, in October 2012 the Commission issued a second (Act II) initiative on the Single Market. It includes a table of 12 key actions *[note 1]*. For the energy sector **lever**, the **objective** is to "further integrate the EU energy market to reduce prices, promote renewable energy and improve security of supply"; the **means** is to "improve the application of the third energy package"; and the **key action** is to "implement [an] action plan to enhance the implementation and enforcement of the third energy package and make cross-border markets that benefit consumers a reality" *[note 2]*.

> *With the passage of time it appears that the focus on these "four freedoms" has become blurred*

The absence of genuine democratic legitimacy

Describing the objective in terms of reducing prices, promoting renewable energy and improving security of supply is a demotic use of language presumably intended to render the argot of the Commission more 'citizen-friendly' and persuasive. It is possible, and, perhaps, it is the hope, that presenting the 'three pillars' of competitiveness, sustainability and security of supply (on which EU energy policy rests) in this manner may encourage increased and sustained popular acceptance and support.

The problem is that it won't; and it can't. The EU's energy and climate change project has never secured the extent of genuine democratic legitimacy that it requires. Nevertheless, the Commission has played the very weak hand of cards it was dealt initially to pursue, slowly, steadily and determinedly, over a period of more than 20 years, its objective of completing the internal market in electricity and gas. DG ENER (morphing from its previous manifestations as DG XVII and DG TREN) has taken the lead, but it has been supported at crucial points by DG COMP and, more recently, by DG SANCO (the DG for Health and Consumers) on consumer issues.

Completing the internal market in electricity and gas was 'unfinished business' in the wake of the Single European Act (SEA) in 1987, but it took the Commission nine years from then to secure the enactment of the 1st Electricity Directive in 1996 (followed by the 1st Gas Directive in 1998). And these directives were very tentative steps towards market liberalisation. Not surprisingly, most national incumbent, integrated transmission and supply businesses were strongly opposed. Many national governments were unenthusiastic. The UK Government was not entirely alone, but its pioneering efforts in terms of the privatisation of its electricity and gas supply industries and the subsequent combination of regulation and market liberalisation attracted limited political or policy support in many other Member States. Britain's then self-sufficiency in natural gas contrasted forcefully with the increasing reliance of continental Europe on gas supplies from the Norwegian GFU, Gazprom and SONATRACH based on long-term, 'take-or-pay' contracts with oil-linked prices.

The difficulties posed by the exercise of market power and political meddling

The challenge confronting the Commission (and which continues to confront it) may best be expressed in the context of the acquisition, retention and exercise of political and economic (or market) power and the roles played by powerful and influential sectional economic interests. On energy policy and regulation, the Commission had very limited powers to pursue its objective. It relied almost totally on national governments, collectively, in the Council to provide it with the appropriate policy direction and then to persuade the Council - and increasingly the European Parliament - to consent to the legislation and regulations it drafted - and to transpose these into national law. Most national governments were very happy to 'talk the talk' of electricity and gas market liberalisation, but, when required to agree on precise primary legislative provisions and then to transpose these in to national legislation, they found it very difficult to 'walk the walk'.

> *The EU's energy and climate change project has never secured the extent of genuine democratic legitimacy that it requiresthese "four freedoms" has become blurred*

Prior to market liberalisation, the existing incumbent electricity and gas suppliers enjoyed cosy, vertically integrated monopoly arrangements. Their staff and suppliers shared in this enjoyment. And the external gas suppliers enjoyed lucrative, if occasionally prickly, but broadly secure contractual arrangements with the national incumbents. The only party losing out was final consumers who ultimately paid for every aspect of

these commercial and contractual arrangements. There was no doubt that significant economic rents - in terms of prices being much high than the economic costs of supply - were being captured along the electricity and gas supply chains. But there were many influential and powerful players with their snouts in the trough. Over time, most Member States had developed broadly stable arrangements to ensure the allocation of this largesse in a way that minimised conflict among the various players. Even if final consumers were paying much more than they should have being paying, secure and reliable supplies of electricity and gas were being provided.

Starting with good intentions and some success

However, the Commission was well aware that the extraction of this largesse was damaging the EU's international competitiveness in terms of higher business and living costs and, particularly, in terms of a high cost of energy to industry competing in an increasingly globalised market. The Commission's initial steps, in the 1st Electricity and Gas Directives, were limited. This was perfectly understandable. Its powers were limited; it had to rely on persuasion. And the opposition to any change was formidable. This was just one example of the continuous battle that the Commission is fated to fight - the promotion of 'more Europe' against the desires of national governments to maintain maximum discretion - and to retain the ability to pander to the narrow, sectional economic interests that exercise varying degrees of power and influence over them. The opponents of change sought to apply the principle of 'subsidiarity' (in theory allowing decisions to be taken at the appropriate level of governance, but in practice permitting national obstructionist tactics), to maintain a requirement to preserve Public Service Obligations and to highlight the obvious differences in institutional and structural arrangements among Member States so as to impede the implementation of the relatively limited changes sought by the Commission.

> *The only party losing out was final consumers who ultimately paid for every aspect of these commercial and contractual arrangements*

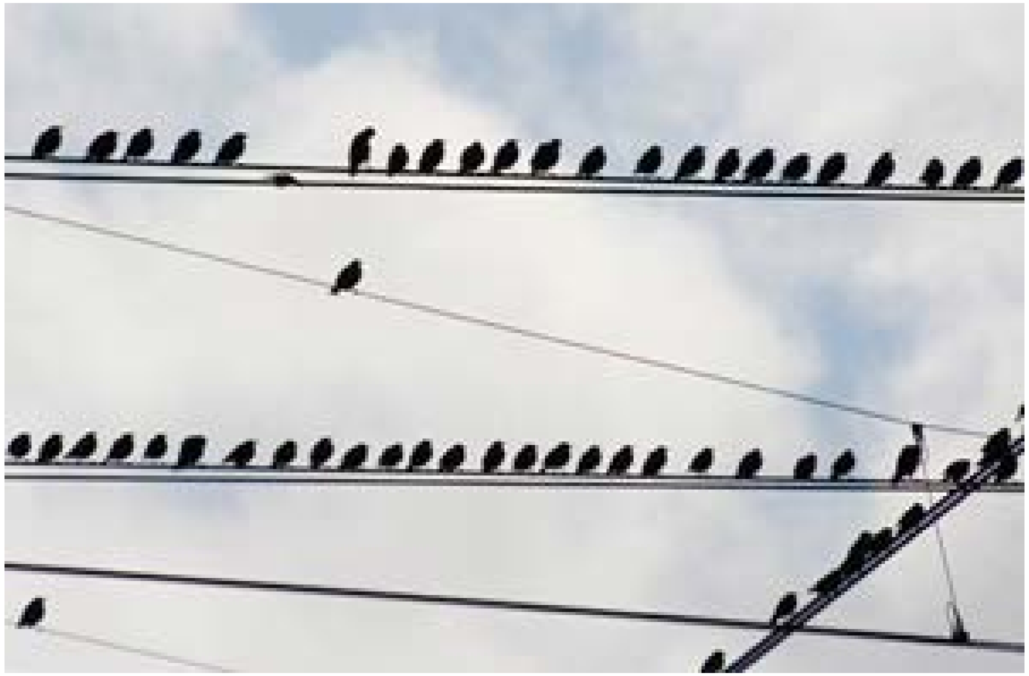
In addition to a growing body of economic theory demonstrating not only that the introduction of competition and choice was desirable in the electricity and gas industries, but that it was also possible, the Commission had two 'models' of how competition and choice could be introduced. The first was the process of gas industry de-regulation pursued in the US from 1978 and which was largely complete by the late 1990s. The second was the process of privatisation, competition and regulation initiated in Britain for the gas industry in 1986 and for the electricity industry in 1990. For a variety of reasons, many perfectly understandable, some downright abstruse, the Commission favoured key elements of the British approach which was based on full unbundling of network and supply activities, wholesale markets in electricity and gas and full retail competition for all final consumers from 1998. *[note 3]*

The Commission could not be that ambitious - at least initially. But the first directives of 1996 and 1998 established two key principles. First, a minimum share of the electricity and gas markets - mainly serving large volume consumers defined by a volume threshold - was opened to competitive supply in almost all Member States. Secondly, electricity and gas networks were required to provide access (third party access) on non-discriminatory terms to network users other than the incumbent supplier. In addition, while the option of negotiated or regulated access to networks was permitted, a number of Member States accepted the need for regulated access and established economic regulatory bodies - or extended the remit of existing regulatory bodies.

The 'Forces of Darkness' regroup

Having established its beachhead, the Commission over the next 6 years, culminating in a second set of directives in 2003, sought to consolidate and expand what had been established under the first directives and to mandate full retail competition for all final consumers from 1 July 2007. This did not mean that the opposition to the changes it was advancing had been overcome. During the '90s the incumbent integrated suppliers (some completely vertically integrated (e.g. GdF or EdF), others locked in to tight contractual and monopoly franchise arrangements with multitudes of local electricity and gas distribution companies) began to see the 'writing on the wall' and to recognise that the changes being advanced by the Commission were running with the 'grain of the times'. They needed time to adapt - and to buy the time to adapt - their often unwieldy and ossified structures. Delaying the enactment of the first electricity and gas directives for as long as possible bought some time - as did ensuring the enforced changes were as limited as possible.

But, even though they were limited, these changes seriously threatened the incumbents' existing comfortable and lucrative business models. Rather than reduce prices to final consumes



and to expand, in any meaningful or useful sense, the choice of service - though some evidence exists that both occurred, the changes initiated by the first electricity and gas directives resulted in a reallocation of the economic rents being captured along the electricity and gas supply chains. The inevitable fragmentation of demand side market power allowed more rent to flow upstream to producers and external suppliers. The implicit 'property rights' of incumbent suppliers to use transmission capacity as they wished were curtailed. Network regulation squeezed allowed revenues and facilitated the transfer of rent to new market entrants. The squeezing of allowed revenues also resulted in a reduction of the rents being captured by network staff - and by suppliers to these businesses.

Despite the pressures in the EU-electricity and gas sectors, the changes created new opportunities for the incumbent national suppliers – in particular for those in the larger national markets. The initial limited opening of the market created opportunities across the EU for consolidation, mergers and acquisitions which were pursued aggressively by the major incumbents to compensate for frequently mandated reductions of their shares in their national markets.

The Empire strikes back

Although they sought to hold fast to their network businesses in the face of increased efforts by the Commission to enforce full network unbundling, the rapidly metamorphosing incumbent suppliers needed additional concessions to reclaim, maintain or enhance their market power. The Commission also wanted more in terms of full retail competition. Local distribution companies (LDCs) – providing bundled distribution and retail supply services (often both electricity and gas) in geographically defined franchise areas – were selected as the sacrificial lambs that allowed a deal to be struck. These LDCs existed in some, but not all, Member States. Many were extremely small and, as a result, often inefficient due to an inability to capture economies of scope or scale. Many of the larger ones suffered from lax municipal ownership, conflicting objectives, overstaffing and inefficient work practices.

Enforcing distribution level unbundling (expect for the very smallest) – ostensibly to facilitate the roll-out of full retail competition – allowed the national incumbents to acquire the retail supply businesses and, following continued consolidation, mergers and acquisitions of electricity generation and bulk supply activities, to vertically integrate along both the electricity and gas supply chains across the EU. And so we have the ‘Big 7’ – EdF, GdF/Suez, RWE, Eon, ENEL, Iberdrola and Vattenfall. Some of the dominant incumbents in the smaller national markets have also restructured and reconstituted themselves to avoid becoming the prey of these predators. In many cases they have succeeded by capturing large tracts of national energy and regulatory policy. *[note 4]*

The Commission decides to stay calm and carry on

This process has been advanced and expanded by the enactment of the Third Energy Package in 2009 which, additionally, in the form of the Agency for the Co-operation of Energy Regulators (ACER), established embryo cross-border energy regulation and, by empowering associations of electricity and gas TSOs, provides the basis for EU-wide electricity and gas network codes. The entire effort is being consolidated and developed in Electricity and Gas Targets Models which are slated to be implemented by 2014. The entire process has become enormously complex and cumbersome since it may be advanced only via a 'consensus among the major stakeholders' – most of whom have conflicting interests. Katja Yafimava of the Oxford Institute for Energy Studies provides an excellent outline of the complexity and areas of contention in the EU gas industry. *[note 5]*

The complexity has been increased – as has the potential for contention – by the imperatives of the EU's climate change

> *Many of the larger LCDs suffered from lax municipal ownership*

policy, national initiatives that go beyond, or deviate from, key features of this policy and concerns about security of supply – particularly since the interruption of Russian gas supplied via Ukraine in 2009.

These problems have been exacerbated by a shortfall in investment in electricity generation capacity and in electricity and gas network interconnection. The continuing Great Recession and the credit crunch that precipitated it continue to be advanced as reasons for this shortfall, but other culprits,

such as the inability to capture the full benefits of interconnection investment, the conflict between the long time horizons of investors in energy infrastructure and the short time horizons of users of this infrastructure or interminable delays in securing all necessary consents and permits for key energy infrastructure investments, have been identified. Again, the Commission, as is its wont, has developed instruments to address these issues, but it is a Sisyphean task continuously treating symptoms as they present themselves, rather than tackling the underlying malaise.

Where did it all go wrong?

The objective of market liberalisation – the introduction of competition and choice – was to promote efficiency in investment, production and consumption which, in turn, would generate benefits for final consumers and the EU economy. Genuinely competitive markets are the most effective means of banishing market power and political meddling. Even if the identity of those exercising it has changed, market power remains unconstrained and, in some instances, its exercise (and abuse) has increased. Political meddling has increased by leaps and bounds. While most energy regulators ostensibly enjoy sufficient independence to make decisions about the businesses subject to regulation free from overt and documentable political meddling, many operate effectively as departments of government implementing energy policy and regulation in a manner that allows ministers to evade any direct policy or political responsibility. Some have been totally captured by the businesses they have been statutorily empowered to regulations; while others were captured prior to establishment to serve the interests of state-owned regulated enterprises and for the convenience of ministry officials and governing politicians. *[note 6]*

Therefore it should not be surprising that most final consumers are no better off, and many are considerably worse off, than they were prior to the initiation of this long drawn-out process of electricity and gas market liberalisation. And all are facing increasing bills. It isn't difficult to understand why this is the case.

A genuine lack of understanding or well-rewarded stupidity?

There is a huge difference between free markets and genuinely competitive markets. Those who most loudly advance the case for the former generally loathe, hate and detest the latter because genuinely competitive markets prevent the acquisition, retention, exercise or abuse of market power.

Governing politicians (and their public officials) dislike them because they restrict their ability to meddle on behalf of sectional economic interests to which they are beholden. Capitalists (and their hirelings), at all times and in all places, will seek to rig, distort and subvert competitive markets – or even to prevent their emergence and effective functioning - to advance their narrow interests. And they will suborn governing politicians and their officials to achieve their goals.

The extent of vertical integration in the electricity and gas supply chains, the consolidation of market power and the limited depth and liquidity of spot and forward markets are perfectly understandable and, equally, were perfectly predictable. The only choice final consumers have is to select among vertically integrated firms who, ostensibly, 'compete' in the retail market *[note 7]*. The only effective criterion that the consumer has to differentiate among these 'competing' offers and to choose a supplier is price. The electricity and gas service they receive in their homes or businesses remains unchanged irrespective of the identity of the supplier. It should not be surprising that suppliers offer a plethora of tariff offers to confuse consumers, to prevent them selecting the lowest-priced offer and to seek to entrap consumers on high-priced offers. Governing politicians, policy-makers, regulators and consumer bodies focus on encouraging consumers to switch suppliers to secure a lower price, on facilitating switching, on improving the information provided to consumers and, on trying to find out, but failing to understand, why most consumers exhibit a reluctance to switch. *[note 8]*

But final consumers aren't stupid. Despite the unnecessary and excessive complexity with which they are confronted and to the extent to which they consider these issues,

> *But final consumers aren't stupid*

final consumers generally have a shrewd sense of the negligible market power they, individually, can exercise to secure sustainable beneficial outcomes relative to the enormous market power exercised by the big vertically integrated suppliers. This is not a behavioural problem that requires a behavioural remedy– as all of these governing politicians, policy-makers, regulators and consumer bodies seem to think; it is a structural problem and it requires a structural remedy.

This brings us back full circle to the fundamental lack of sufficient democratic legitimacy for the manner in which the electricity and gas market liberalisation project has been implemented. It didn't have to end up like this. It was perfectly possible to have functioning competitive wholesale markets in electricity and gas – and, eventually, competitive retail markets where suppliers presented clearly differentiable service offers - that would generate sustainable benefits for final consumers. But the possibility of achieving this outcome was lost when the Commission sold the pass on the LDCs and turned its back on the potential to develop competitive markets in gas transmission capacity.

Prospects of relief for hard-pressed consumers?

And there is no going back. The only possible sources of relief for hard-pressed final consumers are the prospect of lower-priced US LNG imports and the increasing impact these will have on the pricing of external gas supplies. Smart meters and smart grids may grant consumers more control over the costs of their consumption, but their installation will generate a gold-mine for the ICT industry. There is no guarantee that the existing vertically integrated behemoths will pass on the benefits of enhanced load management to final consumers and serious information management and control issues arise.

The only viable alternative is for consumers to assert and enforce their collective interests in the face of avaricious firms and self-serving politicians and public officials, but there is a negligible probability of this happening. However, smug, complacent and self-serving politicians have been blind-sided in the past. We can but live in hope.

NOTES

1 *http://ec.europa.eu/internal_market/smact/docs/single-market-act2-keyactions_en.pdf*

2 *The President of the Council has upbraided the Heads of State and Government for failing to make sufficient progress on Act I and for running the risk of delaying progress on Act II:http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/135864.pdf. The Council meeting in May may make some progress in the energy area.*

3 *The British approach also included the 'virtual' pricing of gas transmission services (Entry-Exit pricing) which, although it facilitates the trading of gas at notional hubs, entrenches the monopoly enjoyed by the Transmission Systems Owners/Operators (TSOs) and prevents the emergence of genuinely competitive markets in gas transmission pipeline capacity. The Third Energy Package of 2009 mandates the use of Entry-Exit pricing and proscribes pricing on the basis of Point-to-Point (P2P) capacity. The generally accepted, but rarely conceded, rationale for this provision is to break Gazprom's hold on P2P transit capacity in to and across Eastern Europe. Not surprisingly, the costs (higher prices for the EU's final consumers) and the benefits (the possibility of lower external supply prices in the future) have never been assessed in a transparent manner.*

4 *It has to be accepted that many of these 'behemoths' are currently suffering financially. This suffering seems to be arising from a combination of the impact of the continuing Great Recession (reducing energy demand across the board), the pace at which renewables (particularly wind power) are penetrating the market and reducing demand for convential generation capacity, Chancellor Merkel's blatant political sop to the Greens - the phasing out of nuclear by 2022 (damaging the balance sheets of RWE and Eon disproportionately), an increasing grassroots demand for 'remunicipalisation' (again largely a German phenomenon) and the painfully slow unwinding of their long-term oil-linked gas supply contracts. The risk now is that, from the perspective of EU and national policy-makers, they will present themselves – similar to many banks at the onset of the Great Recession – as 'too big to fail' (TBTF). The requirement for a structural remedy is becoming more pressing.*

5 *Yafimava, K., 'The EU Third Package for Gas and the Gas Target Model: major contentious issues inside and outside the EU', Oxford Institute for Energy Studies, NG 75, April 2013.*

6 *Ireland presents the most egregious example of pre-establishment capture of an energy regulator.*

7 *Smaller, new entrant suppliers, lacking their own production or generation facilities, find it difficult to secure wholesale supplies at competitive terms and prices.*

8 *In Britain, where full retail competition has been rolled out for much longer than in the rest of the EU, the UK Government is adopting the oxymoronic stance of 'regulating competition' so that final consumers will get the best price deal for them.*

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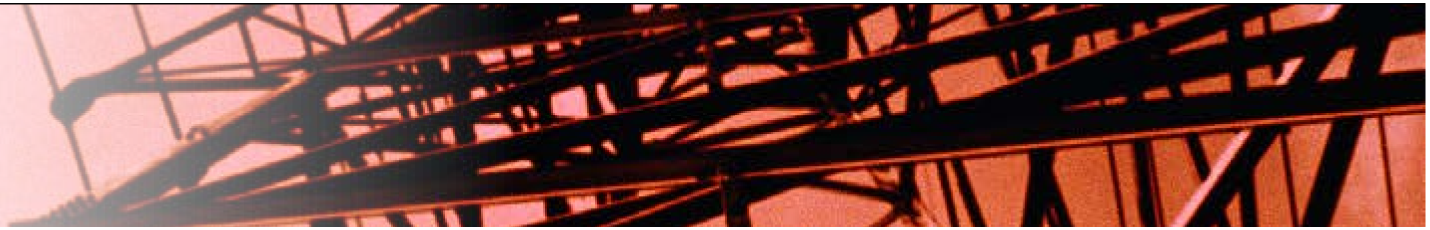

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EU Energy Policy

06/06 The EU's electricity and gas industries: why are we in this mess and what can be done?

See page 2.

27/06 Charming unbundling - a core element of market liberalisation

One of the crucial parts of the Energy Packages has been linked with measures aimed at the provision of equal access to the electricity and natural gas infrastructure. This meaningful request has represented the reaction to the fact that "national champions" were not willing to open the market and compete. Quite the opposite, the status quo, based on the control of all parts of the chain in the electricity and/or gas business, permitted them to generate profit without any pressure on efficiency or prices. Therefore, the unbundling of transmission system operators (TSOs) - leading to free and fair competition has been introduced. A review of history and a view on actuality that concerns the infringement of proceedings and certification procedure.

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13/06

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Alternatives & Innovation

20/06 Biomass-to-jet fuel projects to take off

In the coming years, one of East London's disused brown field sites will form the basis for an ultra modern fuel facility. About 500,000 tonnes of the city's waste per year is going to be processed into 50,000 tonnes of jet fuel, 50,000 tonnes of diesel, green naphtha and 40 MW of green electricity. Micro channel technology has the potential to offer a new solution for making use of natural gas that would otherwise be left in stranded fields or flared, and waste biomass by converting these into liquid fuels.

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24/06 Likelihood of friction between Serbia and Russia over Serbian NOC and gas supply deals

Economic recovery and FDI (Foreign direct investment) diversification improve the negotiating position of Serbia. Early indications of growth in the Serbian economy in the first quarter of 2013 are likely to bring new momentum to the relationship between the Serbian and Russian governments over the Serbian national oil company NIS.

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