regulatory reluctance in this area is that, unlike other EU states, energy has always been a private or (where publicly-owned) local affair with rules set by industry insiders, not politicians. These rules are not easy to set because the German energy industry also has far more energy networks (800 in electricity) than any other EU state. As one (non-German) executive working in Germany for a big German utility put it, 'the German system takes time to adapt, because Germans like to discuss and negotiate everything.'[5]

So, where other EU governments need to let go of their energy companies and their regulators, there is a sense in which Germany's government has needed to take charge of rationalizing its energy system. This system is important because Germany is Europe's biggest economy and main conduit for gas from the east. But Germany has constantly tried to delay any new EU reform, on the grounds that it was still digesting the last EU reform. No wonder therefore that the groans from Berlin were among the loudest when in 2007 the Commission unveiled a Third package of market reforms even before the Second package was fully in force.

5 Author interview, 2007.

CHAPTER 6

UNBUNDLING – UNAVOIDABLE OR UNNECESSARY?

This would be the greatest expropriation since the Bolshevik revolution.

Bruno Wallnöfer, chief executive of Tiwag, an Austrian utility.

What would people say if Heathrow were managed by British Airways?

Claude Mandil, former head of the International Energy Agency.

Of the European Commission's 2007 reform proposals, the most controversial was on ownership unbundling (OU) of energy networks. It gave vertically integrated companies a stark choice: either sell off your networks or put them under the management of separately owned 'independent system operators' (ISOs).

The potential for collective measures in Europe's internal energy market is, as discussed in earlier chapters, high, and higher than in some other federal systems, such as the US. But ownership unbundling proposals clearly pushed this potential to its political limit. Any suggestion of forced divestment was bound to raise issues of public and private property rights, and the spectre of privatization in France and of expropriation in Germany. It was, therefore, on the face of it, somewhat puzzling that the Commission should have pushed so hard. So this chapter analyses the motives and justification for the Commission's proposals, while the following chapter tracks how far the proposals got.

The Commission's Third legislative package was not, as sometimes suggested, an Anglo-Saxon plot born out of UK government pressure to spread its gospel of market liberalization. In recent years, the UK has become more interested in its continental partners' energy market structure, and in that structure conforming more to its own liberalized model. But this view was shared by all the other member states that had taken

their own national decisions to unbundle the ownership of their energy networks. A dozen EU states have separated ownership of electricity networks, and seven have done so for gas networks. They included not only the northern strata of Nordic countries, the Netherlands and Belgium, but also Spain, Portugal and Italy (the latter unbundled in electricity but not gas). This entire group of countries has been concerned that by unbundling their networks, they may have put them at a competitive disadvantage with their bundled neighbours. Therefore they have strongly backed the Commission out of a concern to create a more level playing field.

Yet, even though governments tend to set more of the EU agenda than when Jacques Delors ran the Commission in the late 1980s and early 1990s, it was very much the Commission of Jose Manuel Barroso that inspired the Third package. But the Commission's energy division – DG Tren (for transport and energy) as it is known – might not have produced such radical unbundling proposals, had it not been for the involvement of DG Competition. Continental conspiracy theorists pointed to the fact that several senior officials responsible for the Third package – whether in DG Tren or the general secretariat as well as in DG Competition – were native Anglophones. Such conspiratologists, however, missed the more important point that these officials had a competition background.

Previous EU legislative proposals had been very much crafted by the energy division, which had taken a gradual approach. Over the years, as we saw in Chapter 3, the legislation sought to drive an increasing wedge between the natural monopoly of main transmission networks and the competitive sector of upstream supply and generation and of downstream distribution and sales. Integrated energy groups have successively been required to create for their networks first separate accounts, then separate managements, and eventually separate corporate subsidiaries.

But now Brussels proposed total divorce. The reason was that as a result of its competition directorate's long trawl through the energy sector, the Commission came to two conclusions. First, there was such an inherent conflict of interest in joint ownership of monopoly networks and of competitive parts of

the energy business that only total separation would end it. DG Competition knew it could continue to prosecute individual companies for illegal discrimination and market abuse, and hope that such action would also frighten other companies into behaving properly. But it also realized the task was so great that only fresh legislation on ownership unbundling would suffice to create the necessary across-the-board structural change.

Second, ownership unbundling would also redress a perceived dearth of investment in cross-border networks. This is because vertically integrated networks lack the incentive, the competition inquiry found, 'to invest adequately in their networks, since the more they increase network capacity, the greater the competition that exists on their 'home market' and the lower the market price'.[1] And it was on this point that most of the economic argument about OU turned.

No one contested that OU provides, by definition, a clean and automatic end to the conflict of interest inherent in owning transmission and supply, though opponents of OU such as the French government argued that regulatory scrutiny can equally prevent bias by network owners. But the Commission was accused, from several quarters, of over-stating the causal link between unbundling and investment.

There is certainly logic to the link. Why expand your network if that just imports competition from a rival supplier? Expansion of a network can also ease the problem of bias on that network. As Joseph Kelliher, chairman of the US Federal Energy Regulatory Commission, has remarked, 'greater grid investment will make it more difficult to engage in undue discrimination and preference in transmission service, since it is more difficult to detect undue discrimination and preference when the grid itself is constrained.'[2] In other words, if a grid is congested, it is harder to tell whether the grid operator, in refusing to carry a competitor's energy across his network, is acting out of necessity or bias.

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1 An Energy Policy for Europe, Communication from the Commission to the European Council and the European Parliament, 10.1.2007, COM (2007) 1 Final, p. 7.

2 Statement, 20 July 2006.

But is there a precise, positive correlation of the degree of network investment and of unbundling, as the Commission maintains? Is investment higher in EU states adopting OU, and lower in states where networks are still bundled?

Under-investment is certainly a concern. Given its trans-frontier remit, the Commission's main worry has been the lack of a proper energy highway system across Europe and the energy traffic jams at EU borders. The reason for this, argued Brussels, was that not enough money was being spent to expand the interconnectors which were originally designed as emergency back-up links between national energy markets, but which could not cope with the energy volumes that people were trying to trade across borders in a liberalized market. According to the Commission, 'the amounts invested in cross-border infrastructure in Europe appear dramatically low.'[3] In 2004 only 5 percent of total annual investment in electricity grids, or Euros 200m out of Euros 3.5bn, was devoted to increasing cross-border transmission capacity.

This created crowding at the borders, where demand for transmission outstripped capacity. Some of this congestion is at the borders of peripheral markets that are effectively 'energy islands' such as the UK, Ireland, Spain and Italy. These countries have an import capacity of 6 percent, or less, of their total installed generating capacity.[4] States in the Baltic region and some in southeast Europe are also similar 'energy islands'. In 2002 EU states agreed to increase their minimum interconnection levels to 10 percent (of national generating capacity). But this was only a rough rule of thumb. The Netherlands, for instance, had an interconnection ratio of 17 percent but its connectors to other markets were still almost constantly clogged.[5] The table below shows a high degree of congestion on the Netherlands' electricity links with its neighbours, as well as showing how lopsided UK power trade has been with France.

3 Priority Interconnection Plan, the European Commission, COM (2006) 846, p. 5.

4 Competition sector inquiry 2007, p. 175. See also Chapter 4, fig. 5.

5 Competition sector inquiry, 2007, p. 173.

Table 6: Clogged Arteries – hours with congestion as a perce all hours (selection of borders)

Border	*2004 Jan–May*	*2005 Jan–May*
SK→HU	100.0	100.0
FR→CH	100.0	100.0
DE→DK	99.3	100.0
NL→BE	96.4	100.0
FR→UK	94.6	95.6
DE→NL (1)	87.9	90.1
FR→ES	34.6	81.1
CZ→DE	69.2	68.0
NL→DE (1)	62.9	63.9
BE→NL	63.3	63.1
DE→FR (1)	0.0	41.3
CZ→AT	0.0	37.0
DE→CZ (1)	30.0	35.7
UK→FR	31.5	35.0
FR→DE	48.4	33.3
ES→FR (1)	30.0	32.8
PL→SK	0.0	19.1
ES→PR	7.8	17.5
PL→CZ	15.8	16.1
PR→ES	26.7	11.7
FR→BE	30.4	11.0
CZ→PL	0.2	10.1
SK→CZ	1.4	6.6
CZ→SK	2.1	1.1
DE→CH (1)	0.0	1.0
FR→IT	0.7	0.8
AT→CZ	0.0	0.3
CH→FR	0.0	0.0
IT→FR	0.0	0.0
BE→FR	0.0	0.0
DE→AT	0.0	0.0

Source: European Commission sector inquiry SEC (2006) 1724, p.173

Note: Hours when requested capacity exceeded available cross border capacity as a percentage of all hours. The arrows indicate the direction per border, in some cases reported by different TSOs. (1) Refers to an average of more than one interconnector between two adjacent borders.

The requirement for much more network investment in the future is also clear; the Commission has forecast a need for a minimum of Euros 30bn by 2013 (Euros 6bn for electricity, Euros 5bn for LNG terminals and Euros 19bn for gas pipelines).[6] Better infrastructure to link up Europe's national markets will be needed, among other things, to improve security by allowing gas to be moved around in a supply emergency; to encourage cross-border trading, competition and eventual price convergence; and to get pan-European economies of scale in developing and trading renewable energy at least cost.

Investment

Yet what was the evidence that ownership unbundling (OU), where EU states have adopted it at the national level, has increased investment? The Commission saw 'a significant and constant increase', with an actual doubling of investment spending in the case of Spain, the Czech Republic, Portugal and the Netherlands for both gas and electricity.[7] Investment figures on bundled networks in France, Germany and Italy (gas alone) are – perhaps for obvious reasons – harder to find. They showed an increase, though less marked than in OU states. Ergeg, the European Regulators Group for Electricity and Gas which broadly supports OU, cited the interesting example of Portugal, showing a fall and then a rise in power transmission investment from 1994 to 2006.[8] This period spanned one year of vertical integration, five years of legal unbundling (network put into separate subsidiary) and seven years of full ownership unbundling.

The Commission did not make much of UK figures to bolster its case, but one of its critics, Professor Philip Wright of Sheffield University, did in order to argue the opposite. He contended that too many extraneous factors (such as planning, economic cycles, supply gaps, fuel costs) go into decisions on

6 Priority Interconnection Plan, the European Commission, COM (2006) 846, p. 5.

7 Commission impact assessment, SEC (2007) 1179, Annex 111, p. 90, 10.1.2007.

8 Ergeg, Report on Unbundling, June 2007, p. 37, fig. 3.

Table 7: Unbundling and Investment in transmission system operators (TSOs)

TSO	*Member State*		*Currency*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Red Electrica de Espania	ES	Investment in transmission grid	(mill. Euros)								203	215	243	420	510
Terna SpA	IT	Investment in tangible fixed assests	(mill. Euros)							191	164	240	278	259	319
CEPS	CZ	Investment (excl. financial invest.)	(in mill. CSK)						628,3	781,2	506,6	1388,3	1232,2	1462,8	2348,1
Lietuvos Energija AB (electricity)	LT	Investment	(mill.LTL)								120	149	145	129	156
National Grid Electricity Transmission plc	UK	Replacement, reinforcement, growth and extension	(mill. £)							371	391	426	395	526	
Tramission plc Gasunie incl. GTS	NL	Investment in grid & storage (not LNG	(mill. Euros)			104	84	70	57	67	83	97	114	257	529
Enagas	ES	Investment in grid, LNG and storage	(mill. Euros)								192	426	463	359	433

Table 7: *continued*

TSO	*Member State*		*Currency*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Transco/National Grid Gas	UK	Investment	(mill. £)			147	191	140	228	239	182	159	128	359	444
REN	PT	Investment	(mill. Euros)	93,7	90,6	76,4	57,1	63,9	54,9	81,7	110,3	127,1	144,4	222,2	243,7
GDF/GRT	FR	Network investment in France	(mill. Euros)									970	983	1200	1400
Snam Rete Gas	IT	Investment	(mill. Euros)							429	385	505	574	685	675
RTE	FR	Investment	(mill. Euros)							651	616	535	538	582	638
All German Electricity TSOs	DE	Investment in network only	(mill. Euros)	3600	3100	3000	2700	2500	2000	2200	1800	1700	2000	2000	2500

Explanation: shaded cells indicate years in which the respective companies were ownership unbundled.

Source: Commission impact assessment, 2007, SEC (2007) 1179, page 90

new investment for new investment to be a reliable measure of investment effort. Focusing on gas, he suggested stripping out extra import infrastructure spending on the grounds that it would have been built whatever the policy regime (simply because the UK has an increasing trade deficit in gas). Instead, he used replacement expenditure as the steadiest, and therefore best, measure of investment effort. This showed that in real terms, UK replacement spending on its gas network declined from nearly £600m a year in the mid-1980s, when the network was still part of a bundled state utility, to half that level in the 2000s when it had become an unbundled private company.[9]

Yet while Philip Wright may be correct that the quicker than expected decline in the UK's North Sea gas fields would have created a distorting acceleration in investment, it is hard to see how replacement investment is necessarily a much steadier measure. Surely, there must also be a cycle in replacement expenditure, in line with the ageing of equipment. However, Mr Wright provided a useful reminder of the many other factors going into new investment decisions, some may be at least as important as unbundling. One obviously important factor is the degree of social and environmental acceptability of new power lines or gas pipes; it now takes seven to ten years to erect any line of high voltage pylons longer than 10km, or considerably longer than building, for instance, a new gas-fired power plant. Another is the attitude of regulators. This could even be decisive because it is national regulators who have to approve investment plans and set the rate of financial return.

Congestion revenues

The Commission argued that a clear indicator of the link between OU and investment was to be found in relative use of congestion auction revenue. In other words, what the various transmission operators did with the proceeds of the scarce capacity they auction off. A survey conducted by the Commission

9 Professor Philip Wright, Presentation to Eurogas conference, Brussels, September 21 2007.

covering the EU-15 (excluding the ten new member states) between 2001 and mid-2005 found that OU states reinvested 33 percent of congestion revenue to try to remove the bottlenecks giving rise to that revenue, compared to only 16 percent for bundled states.

Table 8: Relationship between Ownership of TSOs and Reinvested Congestion Revenue

	Ownership unbundled TSOs in EU-15	*Vertically integrated TSOs in EU-15*
Congestion revenue (2001–6/2005)	387	623
Interconnector investment	129	104
Share of reinvested congestion revenue	33.3%	16.8%

Source: Commission impact assessment, 2007, SEC (2007) 1179, p. 34.

Focusing on Germany, the Commission found that over the same period three of the country's four vertically integrated TSOs generated Euros 400–500m in congestion revenue, but only reinvested Euros 20–30m of this into reinforcing and expanding the grid and interconnectors.[10] The TSOs apparently spent the rest of the money lowering transmission tariffs. There was nothing wrong with that, except that it did nothing to remove the bottleneck. However, it is important to recall the same caveat about regulatory, social and environmental obstacles to building new transmission. So reinvestment of much of the congestion auction money might have been pointless, because virtually impossible.

LNG terminals

The Commission used the disproportionate number of terminals built or planned in two ownership unbundled states, Spain and

10 Commission impact assessment, SEC (2007) 1179, p. 34.

the UK, in support of its general argument. But this evidence was too slender, and might just reflect that both countries face a 'gas gap' and have the ports to easily accommodate LNG ships. Italy had an even bigger 'gas gap', and Eni, the vertically integrated, dominant incumbent of its still-bundled gas industry, has only built one LNG terminal. This would seem to bear the Commission argument out. Yet there have been many other efforts to build LNG terminals in Italy that have foundered on purely environmental objections.

Market concentration and prices

The Commission made a connection between OU and lower prices. It did so by arguing that OU had the effect of weakening the market power of vertically integrated incumbents because removal of their vertical integration encouraged new entry, competition and thereby lower prices. And it cited some striking figures for its case.

One set of figures[11] charted the evolving market share of the largest electricity company in a variety of OU and non-OU states over the 1999–2005 period. The average share of the biggest generator in non-OU states was 73 percent in 2005, compared to only 47.7 percent in OU states. However, as the Commission itself admitted, this difference largely existed before any countries adopted OU. In addition, some states such as Italy, which has implemented OU in electricity but not yet in gas, accompanied the reform with an explicit order to its dominant incumbent, Enel, to reduce market share.

Moreover, the main German power producers counter-attacked against the Commission's complaint that they are an oligopoly with significant market power. In particular, the RWE utility commissioned one of Germany's better known economists, Axel Ochenfels, to review the study of the German wholesale power markets which the London Economics consultancy had carried out on behalf of DG Competition in Brussels. Professor Ochenfels complained, among other things,

11 Ibid, Annexe 11, p. 89, fn. 7.

that London Economics had failed to take account of the competitive effect of cross-border trading, which was 'particularly applicable to the German electricity market as a consequence of its central position', and ignored the fact 'prices and price movements in Germany, France and Austria are at times virtually identical despite major differences in cost structure.' This', said Mr Ochenfels, 'indicates that the market is to a large extent integrated'.[12]

Table 9: Development of Market Shares after Unbundling – Market share of the largest generator in the electricity market

	1999	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Countries with legal unbundling							
Belgium	92.3	91.1	92.6	93.4	92	87.7	85
Estonia	93	91	90	91	93	93	92
Ireland	97	97	96.6	88	85	83	71
Greece	98	97	98	100	100	97	97
France	93.8	90.2	90	90	89.5	90.2	89.1
Latvia	96.5	95.8	95	92.4	91	91.1	92.7
Hungary	38.9	41.3	39.5	39.7	32.3	35.4	38.7
Poland	20.8	19.5	19.8	19.5	19.2	18.5	18.5
Average	78.8	77.9	77.7	76.8	75.3	74.5	73.0
Germany (largest)	28.1	34	29	28	32	28.4	n/a
Germany top 3			63	66	66	66	66
Germany top 5			72	75	80	80	79
Countries with ownership unbundling							
Czech Republic	71	69.2	69.9	70.9	73.2	73.1	72
Denmark	40	36	36	32	41	36	33
Finland	26	23.3	23	24	27	26	23
Italy	71.1	46.7	45	45	46.3	43.4	38.6
Lithuania	73.7	72.8	77.1	80.2	79.7	78.6	70.3
Portugal	57.8	58.5	61.5	61.5	61.5	55.8	53.9
Slovakia	83.6	85.1	84.5	84.5	83.6	83.7	83.6
Spain	51.8	42.4	43.8	41.2	39.1	36	35
Sweden	52.8	49.5	48.5	49	46	47	47
United Kingdom	21	20.6	22.9	21	21.6	20.1	20.5
Average	54.9	50.4	51.2	50.9	51.9	50	47.7

Source: Commission Impact Assessment, 2007, SEC (2007) 1179, p. 89

As regards prices, the Commission measured electricity price trends across the Union's entire 27-country membership. It found that over the 1998–2006 period, power prices to industry fell by 3 percent in OU markets, but rose 6 percent in non-OU countries. The difference was greater in electricity prices for households, which rose by 5.9 percent in OU countries and by 29.5 percent in non-OU markets.[13] This last measure is, however, unreliable. The practice of governments regulating electricity prices for households is widespread (see Chapter 5), and cuts across the OU divide within the EU. Spain was, for instance, an early introducer of OU, but heavily regulates domestic power prices. Nor in absolute price terms is there a clear difference between OU and non-OU states. Italy charges the highest prices in Europe for its unbundled electricity, because it has phased out nuclear power, makes no use of what coal it has, and is chronically short of gas for power generation. Meanwhile, France, the leading opponent of OU, has had below average power prices, thanks to its nuclear programme.

In sum, there is probably a connection between OU and lower prices, but a fairly weak one. There are so many other structural factors affecting prices such as a country's energy mix, and cyclical factors such as variations in the oil price to which most continental gas prices are pegged. And the link could be cultural as much as anything else, in the sense that the sort of country that cares enough about competition to introduce OU is likely to be the sort of country that tends to wants to see consumers' interests put ahead of producers' interests in the form of lower prices.

OU and damage limitation

In addition to vaunting the merits of OU, the Commission were keen to minimize any negative effect that sale of networks

12 Axel Ochenfels, 'Measuring market power on the German electricity market in theory and practice – critical notes on the LE study', *Energiewirtschaftliche Tagesfragen* 2007, 52(9), pp. 12–29.

13 Commission impact assessment, SEC (2007) Annexe VII, p. 105.

Table 10: Unbundling and Electricity Prices – Electricity price evolution in all 27 EU Member states

	Industry (Annual consumption: 30 MWh)		*Households (Annual consumption: 600 kWh)*	
	MS with ownership unbundling	*MS with integrated TSOs*	*MS with ownership unbundling*	*MS with integrated TSOs*
1998 1st half	100.00	100.00	100.00	100.00
1998 2nd half	97.38	98.88	99.75	99.68
1999 1st half	92.88	99.25	93.72	101.51
1999 2nd half	92.18	97.60	92.17	101.57
2000 1st half	88.77	97.59	94.98	102.02
2000 2nd half	88.71	94.56	93.77	101.73
2001 1st half	85.69	93.92	92.59	103.00
2001 2nd half	85.59	95.79	95.05	101.78
2002 1st half	74.76	96.28	97.54	110.12
2002 2nd half	73.01	93.60	93.52	109.66
2003 1st half	79.86	99.36	93.91	114.80
2003 2nd half	73.82	101.59	93.97	112.70
2004 1st half	81.00	101.85	94.32	113.84
2004 2nd half	79.25	106.23	92.64	115.55
2005 1st half	83.78	104.86	96.10	122.31
2005 2nd half	85.47	106.41	96.28	124.49
2006 1st half	93.63	111.92	103.23	128.29
2006 2nd half	96.99	106.01	105.91	129.46

Source: Commission impact assessment, 2007, SEC (2007)1179, p.105.

might have on the value of the previously vertically integrated group. Here the Commission's evidence carried reasonable conviction.

Some opponents of OU, especially in Germany, likened it to expropriation. Yet the Commission analysis was that 'shareholders have in fact in almost all cases benefited from increasing share prices during and after the ownership restructuring.'[14] Another fear was that without the secure and steady income stream from their network businesses, the credit ratings of

14 Ibid., p. 35

(previously) vertically integrated groups would take a hammering. In practice, there was little to choose between the credit ratings of OU and non-OU companies.

The fear of losing network ownership was particularly acute in the gas sector. The European gas business is increasingly an import business. So pipelines account for an ever larger part of the assets of gas companies. Many of the latter therefore feel very nervous about the OU plan, but not all perhaps.

In this context, it is worth bearing in mind certain advantages that some OU companies or indeed countries have had over others. It was, for instance, undoubtedly easier to unbundle the gas grids of countries that were themselves gas producers such as the Netherlands and the UK, because such gas grids would not have had to worry about their commercial weight in relation to foreign suppliers. It must also be easier for a gas company to contemplate losing its network if it is itself part of a much larger whole involved in the more valuable petroleum sector. As examples of the latter, consider Spain's Gas Natural which is part owned by Repsol, or the controlling stake that Eni has in the Snam Rete Gas network that is only a very small part of the Italian oil major's market capitalization.

In fact, concerns about the relationship between unbundling and corporate size surfaced towards the end of the controversy among EU governments. Some member states feared that ownership unbundling would leave their smaller stand-alone networks or supply businesses as easy takeover prey for the superior financial firepower of larger, vertically integrated giants based in states that still allowed bundling. Memory of Electricité de France's foreign acquisition spree a few years earlier lent substance to this fear. So Dutch and Spanish ministers successfully insisted in the negotiations of 2008 that ownership unbundled states should be allowed to take safeguard measures – which would have to conform to EU single market rules and be justified on energy supply grounds – to ensure a level playing field. The UK indicated that it would not be resorting to such safeguards because it remained relaxed about foreign companies buying almost whatever of the UK energy supply sector they wanted, provided they paid a good price for it.

ISO: the unpalatable alternative

The Commission had clearly designed the option of an 'independent system operator' to be as unattractive as possible, so that as few countries as possible would choose it instead of OU. In this the Commission succeeded so well that no one else could stomach the ISO option, not even the regulators.

The Commission wanted ISOs to be as 'deep' as possible. These operators were to have a decisive say in the development and expansion of networks that would leave the actual owners of the grids or pipelines as financial holding companies with no day to day operational control over their assets. The Ergeg regulators' group saw a very awkward division between network operators and owners in sharing legal liability for any failure to deliver or damage caused, in sharing profits, and in agreeing investment. 'Effectively this would imply the regulators' deep involvement in the investment planning and approval process', Ergeg said warily.[15]

The regulators group cited a couple of country case studies to rub in the inferiority of ISOs to OU:[16]

- Italy created an ISO in electricity in 1999. But after several years of inefficient and difficult coordination between the owners and operator of the grid, Italy 're-bundled' grid ownership and operation together again in 2005 and spun it off as an independently-owned network company. This new network company was able to reduce spending on operations and raise it on investment.
- The UK is unique in the EU in harbouring both systems of OU and ISO. In England and Wales, National Grid/Transco owns and operates the wires and pipes, and also acts as the ISO of Scotland's electricity grid which the two Scottish electricity companies still own but no longer run. Ergeg, or its UK member, Ofgem, complained the complicated interface between operator and owners in the Scottish system took 12 months and 200 pages to codify, and that there were still inefficiencies in the Scottish system.

15 Ergeg, Report on Unbundling, 5 June 2007, p. 14
16 Ibid, Annexe 3, pp. 32–40.

Lessons from the US

Europe is not alone in struggling with the twin problems of discrimination and under-investment on networks, particularly electricity. Indeed, in the US the problem may be worse. According to the US Federal Energy Regulatory Commission (Ferc), transmission investment declined in real terms for 23 straight years, from 1975 to 1998; it has increased since 1998 but it is still below the 1975 level.

The Ferc has never tried to order utilities to sell off electricity grid assets. It would never dare to try to do that, in the face of entrenched states rights and for lack of the federal authority that it has in the natural gas sector. Instead, the national US regulator tried something very similar to what the European electricity industry was to propose in 2007 as an alternative to ownership unbundling. In 1999 the Ferc decided to start encouraging the voluntary banding together of companies owning network assets in 'regional transmission organizations' (RTOs) that would be regulated by the Ferc itself. When this did not work, the Ferc responded with its 'standard market design' proposal of 2002, making it mandatory for companies to form RTOs. This drew a wave of opposition from an industry that is even more diverse in size and nature than Europe's, with ten times the number of transmission companies. The loudest outcry came from the southeast's vertically integrated giants of Southern and Entergy (America's equivalent of EdF) and the publicly owned companies of the Pacific northwest, but the fear among states that RTOs would allow neighbours to 'steal our power' was widespread.

So the Ferc abandoned the attempt to compel companies into RTOs, though much of the country where the congestion was worst (the northeast, Midwest, part of California and Texas) has adopted this model. But even for some former Ferc commissioners such as Nora Brownell, the creation of RTOs without separating ownership of the grid and generation has been a second best. Ms Brownell, like Brussels, believes that there are pitfalls in such wider regional organizations. "They can work efficiently, but they also need to be watched for collusion." [17]

17 Author interview, February 2007.

In fact, US-style RTOs do not quite fit the category of what the Commission defined as its 'second best' solution – independent system operators with the clout to order the expansion, not just the operation and maintenance, of a grid, even though it does not own the grid. "None of the US RTOs has the authority to order investment, though they can through a convoluted process divide projects into those justified on 'reliability' and on 'economic' grounds", says Ms Brownell. The idea is that 'reliability' projects (necessary to keep the grid running) get priority over 'economic' ones. "But often anything the dominant utility wants is classed as 'reliability', and everyone else's projects get downgraded as 'economic'", comments Ms Brownell.

Another reason for European caution in looking at America's RTOs is that most RTOs go beyond what their European counterparts would do to operate a market as well as a grid. Indeed some of them, like the much-vaunted PJM with its 50m customers in the mid-Atlantic states, started as power pools. There are advantages to running a market as well as a grid, says Branko Terzic, another former Ferc commissioner, "in the form of integrated transmission and generation rules and market knowledge that allow you to pinpoint where new transmission is most needed".[18] The US model may only be relevant if European transmission companies also turn themselves into wholesale marketers.

The industry's alternative

However, this regional US model found an echo in the response of the main organizations of European energy producers. As the power sector's main association and one dominated by historic incumbent producers, Eurelectric initially came out against the Commission's structural reforms. But it quickly responded with a regional recipe that, whatever its technical merits, seemed politically astute. The association told the Commission that its approach was too national, an accusation calculated to hit home with Europe's civil servants. Eurelectric said ownership

18 Author interview, February 2007.

unbundling 'would not of itself lead to the development of competition on a larger scale and would, moreover, reinforce the prevailing excessive national focus as identified by the Commission in its analysis', and 'is shifting attention away from the core requirements for fostering market integration'.[19]

Effectively, Eurelectric was telling the Commission that, if its top priority was market integration, it should tackle this directly by encouraging transmission systems, whatever their ownership, to cooperate across borders, and quit its quest to push unbundling to a counterproductive extreme. There appeared to be a beguiling logic to this, which was backed up by convincing lobbying and concrete example.

Particularly interesting was the attitude of Vattenfall. This company owned no transmission in its home of ownership-unbundled Sweden, but did own a network in Germany where it has been one of the dominant four power companies. 'We are ready to commit our TSO [in Germany, for instance] to a regional, i.e. supra- national, transmission structure', Vattenfall wrote in a formal company position paper in February 2007, 'but we will not support our TSO becoming part of a national ownership unbundling or ISO solution.' The Swedish company said its experience in the Nordic market was that 'ownership unbundled TSOs are driven purely by national regulation encouraging them to move congestion to the national border, instead of making the investments needed to integrate the Nordic market.'

Opposition to OU by some other Eurelectric members, such as leading French and German companies, was more predictable, because it was rooted in the culture of their home countries and governments. However, French and German governments, regulators and companies showed they were ready to take a more direct route to market integration. In June 2007, they joined their Belgian, Dutch and Luxembourg counterparts in committing themselves to an eventual coupling of their five national power markets (there is already a trilateral coupling of the French, Dutch and Belgian markets). Although more a matter

19 Eurelectric position paper on the European Commission's approach to market developments, March 2007.

of organization and coordination than of new investment, such market coupling is a very important market development on the ground. For it allows buyers and sellers to 'couple' instantaneously and automatically the cross-border purchase of power with the acquisition of physical actual capacity to actually get the power across the frontier. This avoids the not infrequent situation in which a cross-border transaction falls through purely for lack of immediately available transit capacity.

Yet the Commission has remained generally unswayed by such arguments or apparent bona fides. Brussels tended to claim that letting unbundled TSOs band together regionally would be at best a diversion from OU and at worst the opportunity for collusive market sharing and rigging.

Conclusion

The balance of economic cost/benefit balance pointed in favour of OU, but not as decisively as the Commission maintained.

It is logical to imagine that bundled networks might have an incentive to under-invest, though the evidence is slim. The one classic case has been the Italian anti-trust authority's decision in February 2006 to fine Eni Euros 290m for stopping upgrades on the Trans Tunisian Pipeline, even though the Italian company had already signed up a number of gas shippers to transport their gas through the expanded pipeline. The accusation was that Eni decided, on second thoughts, it did not want the pipeline to import more competition to Eni's own gas supply operations in Italy.

Again, it is logical to think that OU networks would, if anything, try to over-invest in transmission because that is their only business. Actually, over-investment could be almost as much against consumers' interest as under-investment, if the cost of unnecessary spending were passed on to consumers. A regulated utility can find it profitable to 'over-invest' provided the regulator allows it to recoup the cost of the over-investment from consumers. Moreover, it is also possible to imagine regulators being more lenient on unbundled networks over-investing than on bundled networks under-investing.

Ergeg made clear it preferred the simplicity of OU. It is easy to see why regulators might want to avoid being dragged into organizing the complexity of ISOs. The question therefore arises whether regulators are simply rewarding the system they are most comfortable with. Such a possibility is reinforced by the European Commission's comment, in its impact assessment of investment, that: 'the independence of ownership unbundled TSOs from supply and generation interests is likely to have contributed to the regulators' willingness to finance the investments through tariffs.'[20]

There is no hard proof of this. One UK regulatory official detects a cultural difference in the approach to bundled and unbundled networks. The attitude to the former tended to be 'cynical', with the regulator always wondering whether revenue allowed the network would not actually disappear into some black hole in the parent company; by contrast, the regulator can afford to be more 'trusting' towards an OU network. But while regulators have it in their power – through setting the levels and rates of return on investment – to reward whichever structure suits them best, there is no actual evidence they do.

In the end, the Commission's competition inquiry report into the energy sector and its impact assessment of the Third package provided intellectual ammunition for the OU cause, but not the knock-out argument Brussels officials had hoped for. So it was not surprising to see, as the unbundling debate reached its political as well as intellectual limit, the Commission's initially bold legislative assault slow and end in compromise, as we shall see in the next chapter.

20 Commission impact assessment, SEC (2007), p. 34.