

# **ERGEG Guidelines for Good Practice on Information Management and Transparency in Electricity Markets**

A Response to Consultation from Barclays Capital

May 2006

## Table of Contents

1	Introduction and Summary	3
2	Greater transparency is urgently required	4
2.1	The market lacks data on key fundamentals	4
2.2	The benefits from greater transparency are huge	7
3	Information release should not be unduly restricted	8
3.1	Disaggregated production and capacity information is essential	8
3.2	Collusion should not be a grounds for restricting transparency	9
3.3	Confidentiality exemptions should be tightly restricted	10
4	Suggested amendments to the Guidelines	12
5	ERGEG should work towards mandatory information release	13
6	Contact Details	14
	Annex 1: The Impact of Data Release in Germany	15

## 1 Introduction and Summary

Barclays Capital is pleased to respond to the ERGEG's consultation on the draft "Guidelines for Good Practice on Information Management and Transparency in Electricity Markets". Barclays Capital - the investment banking division of Barclays Bank PLC - is a leading intermediary and liquidity provider in EU power markets, the EU emissions allowances market and the UK gas market.

Barclays Capital fully supports ERGEG's initiative to increase the levels of transparency in EU electricity markets via the publication of the draft guidelines. Information transparency is fundamental to the delivery of competitive EU gas and electricity markets and the lack of effective information release across EU electricity markets is currently stifling the development of wholesale market competition. Without good data on likely events and the ability to explain the underlying causes for past events, market participants cannot gain a detailed understanding of the underlying supply and demand fundamentals and hence likely developments in the market. This lack of information requires market participants to risk their capital on events that they do not fully understand, which increases risk premia, reduces market liquidity and acts as a barrier to new entrants into the market. The result is a higher costs to consumers and reduced consumer confidence in the derivation of market prices.

At present, the level of information release in European electricity markets is poor. Some markets – notably the UK, Spain, Ireland and Nordic markets – are already very transparent. However, as we outline in section 2 of this paper below, the majority of markets remain frustratingly opaque in terms of crucial generation and demand data and this lack of transparency is currently imposing huge costs on EU power consumers.

To realise the full benefits of transparency release, information must be at the highest possible resolution. Specifically, as we outline in section 3 below, ex post generation and standing data on installed capacities on a unit-by-unit basis is crucial in allowing market participants and consumers to understand, and have confidence in, the derivation of market prices. Concerns about confidentiality and potential collusion should not prevent the release of this data. To this end, in section 4 below, we set out proposed amendments to the Guidelines to define more explicitly the limited circumstances under which data might be restricted and to require the publication of disaggregated production and capacity information.

Given the urgent need for greater transparency, we would urge ERGEG to be more ambitious and to move beyond the "minimum acceptable standard" set out in the draft Guidelines to defining a vision for complete transparency and an aggressive timetable to achieve that goal. As we conclude in section 5, we believe that the required levels of transparency are largely already clear via the benchmarks provided by the UK, Spain, Ireland and Nordpool. We are sceptical of the ability of voluntary and cooperative processes to deliver the required levels of transparency across the EU and, hence, the need for an ongoing process of appraisal of the adoption of Guidelines during the course of 2007. We therefore urge ERGEG to begin now to develop proposals for a mandatory framework for information release, in conjunction with DG Tren and DG Competition, to coincide with the publication of their final reports towards the end of the year.

## 2 Greater transparency is urgently required

### 2.1 The market lacks data on key fundamentals

As DG Competition has identified in its Preliminary Report,<sup>1</sup> the lack of information transparency is one of the key barriers to greater competition in EU electricity markets. The Report concludes that “improved transparency would minimise risks for market players and so reduce entry barriers to generation and supply markets, provide a level playing field and improve trust in the wholesale markets and confidence in its price signals. More than 80 per cent of market participants are not content with the current levels of transparency”.

Despite the importance of transparency to the development of competition and enhancement of security of supply, there has been little progress in Member States in releasing the required information. We noted with interest the results in DG Competition’s Preliminary Report of the survey of data release on 49 precise issues with the average result being less than 20. We recently conducted a brief (and informal) survey of our own on the release of ex post generation information and real-time demand information as the two key elements in understanding prices.

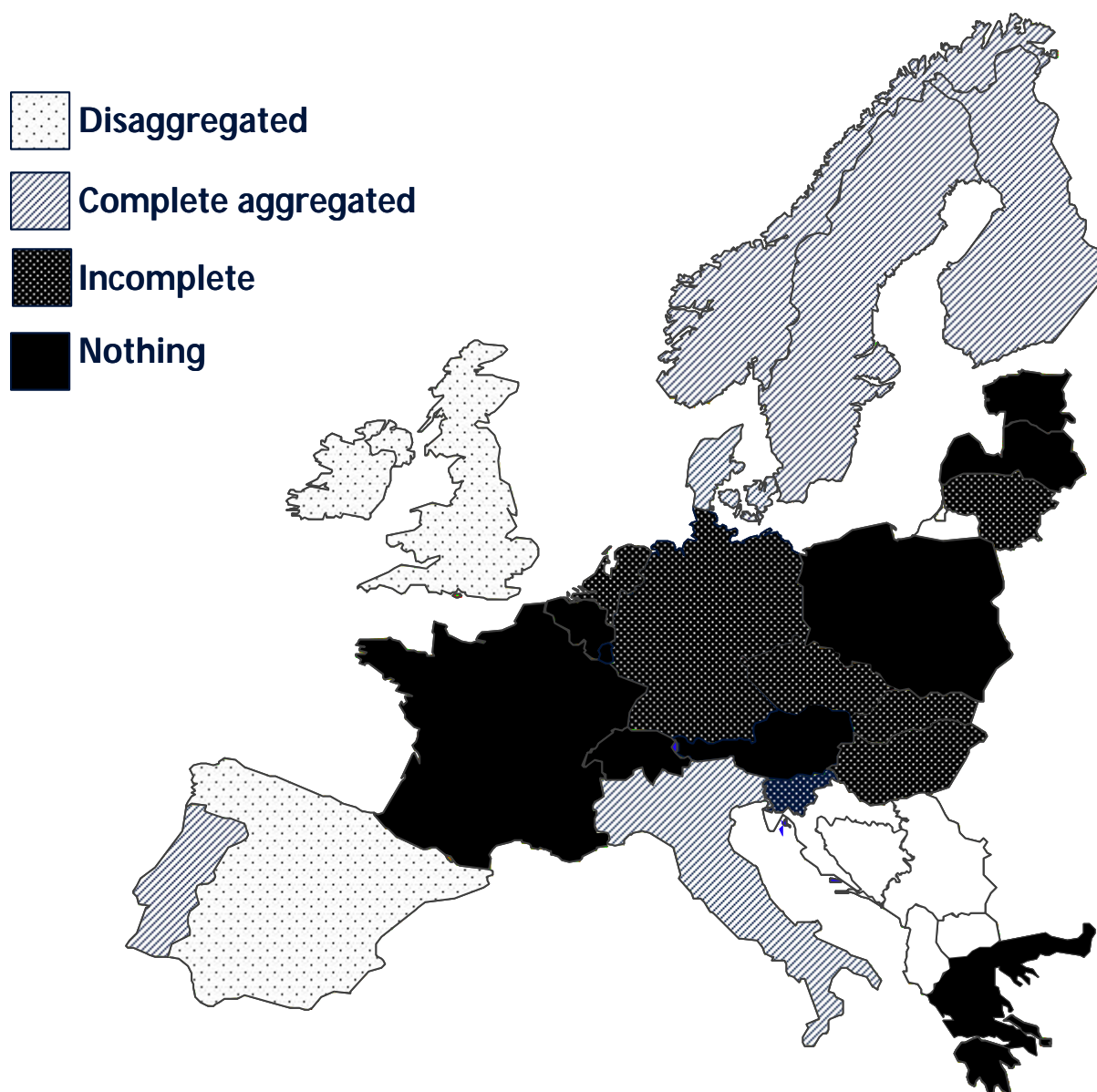
According to our analysis, information on generation by plant is currently only available for 21 per cent of total EU generation with those countries providing aggregated generation data – either in total or by fuel-type – covering a further 22% of generation. The remainder of countries either provide no information on generation production at all (31 per cent) or provide aggregated data that is incomplete and only covers a sub-set of plants (26 per cent). In summary, **there is no meaningful data released on 57% of EU generation**. The results of this analysis are shown graphically in Figure 1.

The recent decision by the four major German generators to release more information via EEX provides a practical case study of the limitations associated with partial data release. While any improvement over the current baseline is clearly welcome, the data now released is incomplete, covers less than half of German production and it is not clear which plants are included within the aggregated figures. Not only is the data partial, but the data is also too highly aggregated to give market participants sufficient insight into the underlying supply curve for generation and early experience suggests that the data is released too late in the day to have an appreciable impact on the day-ahead market. Annex 1 provides some further information and analysis of the recent developments in Germany.

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<sup>1</sup> “Energy Sector Enquiry, Draft Preliminary Report”, DG Competition, 16 February 2006.

Figure 1: Release of Ex Post Generation Data



Poor generation data transparency is exacerbated in key markets by the absence of any reliable data on actual levels of demand. While hourly demand data is available for approximately 76 per cent of EU load, demand data is incomplete for a crucial 22 per cent of load – covering Austria, Germany and the Netherlands - and insufficient to have any meaningful read across to the levels of generation and consequently the impact on prices. (For the remaining 2 per cent of load, no demand data is released at all.) For example, in Austria, there is no demand data at all for the largest control area and in Germany and the Netherlands, demand data only applies to low-voltage offtakes rather than total system demand. This exacerbates the poor level of generation information provided in these markets with the result that it is largely impossible to understand price movements on the key continental European trading hub. Figure 2 provides a graphical summary of the release of hourly demand data.

**Figure 2: Release of Hourly Demand Data**



When coupled with the absence of any authoritative standing data on installed plants and capacities, the release of incomplete or partial demand and generation data provides only very limited benefits to market participants in drawing meaningful conclusions on the evolution of prices in these countries. Our findings not only highlight key gaps in the provision of fundamental supply and demand information, but also the need for regulators to look beyond the headline items of data release to examine in detail the different dimensions of data release in terms of completeness, levels of aggregation, timing of release etc. We return to examine these different dimensions of information release in section 3 below.



## 2.2 The benefits from greater transparency are huge

EFET has produced an extensive position paper on the topic of information transparency,<sup>2</sup> which sets out in detail the many qualitative benefits of greater information release. As a consistent advocate of information release, Barclays Capital fully supports the views expressed in this paper and we will not repeat them here. Despite these well-articulated benefits, however, there has still been relatively little progress in Member States in releasing the required information. Overall, we believe that Member State regulators have failed to appreciate the scale of the benefits to consumers that information release might secure. This is not particularly surprising since the benefits of greater information release can be difficult to quantify, whereas those with an interest in maintaining the status quo too readily volunteer all the purported “costs”. Measurement difficulties, however, do not necessarily equate to an absence of those benefits and although precise calculations are difficult, it is nevertheless possible to estimate the likely magnitude of the benefits and costs. In this respect, the debate surrounding information release in the UK gas market is instructive.

Although the onshore gas market in the UK compares very favourably with most EU gas and electricity markets in respect of competition and liquidity, the offshore production arrangements have traditionally been very opaque with little, if any, information on offshore production capability, maintenance outages and actual flows made available to the wider market and to the system operator. Ofgem has been a consistent advocate for greater offshore information release and since 2003, Ofgem, the DTI, customers and market participants have been engaged in an ongoing debate on the benefits of greater information on flows into the UK gas network. In July 2005, this process resulted in the release of further highly aggregated information under a voluntary agreement between the DTI, Ofgem and the offshore community. However, the high level of aggregation of this data raised concerns and, in parallel to this initiative, the consumers’ advocate energywatch brought forward a proposed modification to the UK’s Network Code (which contains the rules governing the operation of the network and balancing system) for the release of close-to-real time information at individual entry points to the UK network. After a period of detailed assessment and consultation, Ofgem approved this modification on 3 May 2006. In assessing the proposal for the provision of real-time disaggregated information, Ofgem estimated<sup>3</sup> that the net benefit of the proposal – over and above the release of the aggregated information – would be in the range of £83 to £122 million (derived from more efficient price signals, balancing and the reduction in market volatility).

Given that the UK gas market is very competitive, liquid and transparent when compared with many European gas and power markets and that these benefits only refer to the incremental value of disaggregated data, the cost to EU electricity consumers of poor information transparency alone is likely to run into billions of Euros. Given the magnitude of this potential benefit, there is an urgent need to secure greater release of information in EU electricity markets.

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<sup>2</sup> “Transparency and Availability of Information in Continental European Wholesale Electricity Markets”, EFET, July 2003: <http://www.efet.org/default.asp?Menu=76>.

<sup>3</sup> Ofgem’s decision document can be found here:

[http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/14822\\_8006.pdf?wtfrom=/ofgem/index.jsp](http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/14822_8006.pdf?wtfrom=/ofgem/index.jsp)

### 3 Information release should not be unduly restricted

The previous section highlighted the need for, and the huge attendant benefits, of greater information transparency. We also highlighted that regulators will need to assess carefully the basis for the information provided, the level of aggregation and the timing of release to ensure that market participants can make effective use of the information provided. The Guidelines presented in the consultation document provide an excellent starting point for this analysis and in many areas describe an appropriate scheme for information release in terms of the specific data items, the timing of release, levels of aggregation etc together with the benefits attaching to that item of data. We also note that in the areas of demand and transmission data, there appears a broad read across between ERGEG's proposals and those from Eurelectric<sup>4</sup> and EFET.<sup>5</sup>

Perhaps unsurprisingly this consensus breaks down in the area of generation data amid concerns about the commercial confidentiality of the information and/or the potential scope for collusive behaviour. We are concerned that these considerations are likely to restrict unduly generation data release. Specifically, as we explain in section 3.1 below, information on actual production and standing data on installed capacities on a unit-by-unit basis is crucial in allowing market participants and consumers to understand, and have confidence in, the derivation of market prices. As we explore in sections 3.2 and 3.3 below, however, while concerns about confidentiality and collusion may justify the aggregation of advance information on generators' planned availability etc, there can be no such valid concerns about the release of standing data and actual production data.

#### 3.1 Disaggregated production and capacity information is essential

To fully understand and respond to price movements, market participants need to understand the evolution of the underlying drivers of demand, supply and transmission capacity. We see the close to real-time, but *ex post* generation information on a plant-by-plant basis as the single most important item of data. Combined with data on system load (and transmission flows) disaggregated production data is crucial building a picture of what drives market price movements (in power and the related markets in gas, coal and CO<sub>2</sub>). Aggregated data, even at the level of fuel type, obscures significant differences between individual plant's efficiencies, availability, operating regimes and constraints. Given that two or three fuels dominate most markets, and that a single fuel is likely to predominate at the margin, aggregated data is therefore not sufficient to provide the required level of understanding of, and confidence in, the determination of prices

Similar considerations also apply to the release of disaggregated, unit-specific standing information on installed capacities, plant vintages etc. This information is crucial to understanding the underlying "stack" of generation available to meet future market demand. The Seven Year Statement produced by National Grid in the UK<sup>6</sup> provides a model for the release of this data. It provides highly detailed information on installed capacities, plant locations,

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<sup>4</sup> Eurelectric Position Paper on Market Transparency (as further to the request of the 12<sup>th</sup> Florence Forum), February 2006.

<sup>5</sup> Although ETSO also prepared a response to the Florence Forum request for information, both the request to ETSO and their subsequent response are focused on the provision of greater information to the TSOs by market participants to improve transmission optimisation. As such, their paper is relatively silent on the wider question of the release of information to market participants.

<sup>6</sup> A copy of the Statement can be found here: <http://www.nationalgrid.com/uk/Electricity/SYS/>



planned plant additions/closures and developments to the transmission system alongside several “planning” scenarios of the future evolution of supply and demand (and we are aware of no concerns about the breadth of the data released).

Finally, It is also worth considering the contribution that the release of disaggregated information on actual production could have played in improving the efficiency of the emissions market in the light of the recent price collapse (from €27.20 on 25<sup>th</sup> April to as low as €11.00 on 3<sup>rd</sup> May). The collapse was precipitated by several headlines indicating a significant over allocation of allowances for Phase 1 of the scheme in the Netherlands, France, Czech Republic and Walloon region (with only Spain so far showing emissions above their cap). Although the EU balance remains to be seen, this indicates that the emissions market may have been pricing allowances based on a level of perceived scarcity that did not reflect reality. Given the reflection of carbon prices in electricity prices, power prices may have been similarly mis-priced for the past year. Power generation accounts for some 60 per cent of EU emissions and is the swing provider of carbon abatement (via coal to gas switching). The provision of information on actual generation disaggregated by unit could therefore have made a significant contribution to improving market participants’ knowledge of the underlying carbon market fundamentals.

### 3.2 Collusion should not be a grounds for restricting transparency

The Consultation document notes that in some circumstances “access to certain information, or access to certain information in a non aggregated format, might introduce a danger of collusive behaviour or market distortion”. While we accept that the risk of collusion needs to be born in mind, we are concerned that fears about potential collusion will lead to unwarranted restrictions, undue aggregation or timing delays in the release of crucial generation information. There is an inherent circularity between preventing information release because it might facilitate the exercise of market power when a lack of transparency is one of the most significant barriers to further competition and the reduction of market power (which begs the question of how we ever break out of the circle). Even without information release, there is an equal risk of collusion in highly concentrated markets, since incumbents can more easily impute or know the commercial positions of other incumbents and/or may already “share” information via the joint ownership and operation of particular plants, via inadequately unbundled system operation functions etc. Energy, financial and competition regulators also already have significant tools to deal with potential collusion and greater transparency offers the following significant benefits even against the backdrop of potential collusion:

- Information release allows regulators, academics, market participants etc to easily identify and analyse dominant and collusive behaviour, which, in itself, can makes an invaluable contribution to the effective policing and regulation of market power;<sup>7</sup> and
- transparency allows traders to identify potential competitive opportunities and to “trade around” (ie, take account of) any collusive behaviour in their own decisions thereby increasing competition for the incumbents in the wholesale market;<sup>8</sup>

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<sup>7</sup> In England and Wales, the transparency provided under the Pool enabled the regulator and market participants to undertake extensive analysis of the problem as a contribution to regulatory moves to secure generator divestment. For example, see “A Report on Generator Market Power in the Electricity Market of England and Wales” R Brealey and C Lapuerta (1997) published by the Brattle Group, London, for Enron Europe.

<sup>8</sup> The experience in England and Wales electricity market in the mid to late 1990’s demonstrates that active trading was possible, despite the highly concentrated generation sector at the time, precisely because there was significant information transparency.

We also note DG Competition's conclusion that "the risk of collusion does not outweigh the advantages of more transparency" and that "in any case, the risk of facilitating collusion could be reduced by only publishing figures on an aggregated rather than individual basis (at least in advance of trading) (our emphasis). This latter comment is particularly important in that it highlights that even if concerns about collusion apply to advance information on planned outages, availability etc, there can be few such concerns relating to the release of unit-specific production data after the event and/or detailed "standing" data on the capacity, age, location, etc of individual stations.

### 3.3 Confidentiality exemptions should be tightly restricted

As we noted in the previous section, concerns about potential collusion should not hinder the release of disaggregated information on actual generation or installed capacities. However, we are also concerned that claims of commercial confidentiality could also restrict information release unduly. For example:

- while it may be reasonable to aggregate information on planned availabilities, there seems little confidentiality justification for aggregating "standing data" on installed capacity at individual plants (as Eurelectric have proposed); and
- it should not be presumed that data should be aggregated on a national basis when aggregation by fuel-type, control area or geographic region would suffice;
- in very highly concentrated markets, the fact that even aggregated information may reveal some information about the incumbent should not necessarily prevent the release of that information (in the light of the benefits outlined in the previous section on the benefit of increased scrutiny of the exercise of market power).

Confidentiality also fails to justify aggregating unit production data and/or for delaying the release of that information for the following reasons:

- **Trading is a zero-sum game.** The main argument against the prompt release of actual production data is that producers should be able to buy in the market to cover an outage before the market more widely has a chance to factor the impact of the outage into prices. However, if one party gains from buying in advance of a supply shortage and associated rise in market prices, then, by definition, the selling party must lose the same amount (ie, trading is a "zero-sum" game). The failure to reveal real-time production information therefore effectively represents a direct transfer of value from market participants (and ultimately consumers) to producers. It is for this reason that participants in the Nordic market are restricted from trading until the wider market is informed of unplanned outages.<sup>9</sup>
- **Even ex post data is invaluable to the market.** Even if one accepts the producers' arguments with respect to real-time data, there can be no argument about releasing physical production data on a unit-by-unit basis after the event, since by

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<sup>9</sup> It should therefore come as no surprise to policy makers that producers vigorously oppose plans to reveal real-time production data. A simple thought experiment confirms this view: if the status quo was to release prompt production data, would anyone seriously entertain a move back to allowing producers to buy in the market based on private information in advance of a market response to the supply shortfall? In 15 years, there has been no attempt to remove prompt generation information in the UK or Nordic electricity sectors to protect the position of generators largely, one suspects, because it would be difficult to mount a credible case for such a change.

definition it will no longer reveal any commercially sensitive information about a producer's future commercial position. Nevertheless, even the delayed release of physical production data would be invaluable to wholesale market participants in analysing why prices moved in particular ways on particular days and, hence, as a basis for forecasting future prices and quantifying the associated risks.

- **Power plant production data is no longer confidential.** Market information providers currently provide real-time power plant production data for plants in Belgium, France, Germany and the Netherlands. Although this data only covers a sub-set of plants, the fact that the information is available at all invalidates the claim that individual power plant production data is inherently confidential.<sup>10</sup>

In summary, aggregating or delaying information on unit production gives producers' interests undue weight when compared to those of consumers and this data is no longer confidential in any case. Even if regulators accept producers' arguments against prompt release, there is no justification for aggregating unit production data after the event. Consequently, any exemptions or restrictions (ie, aggregation or delayed release) on information release must be solely restricted to advanced information on planned generator availability and should not extend to actual production data or to standing data on installed capacities.

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<sup>10</sup> ?The presence of commercial data providers in some markets has led some incumbents to claim that a regulatory solution to information release is no longer required. However, market data providers currently only cover a sub-set of plants in a limited range of geographies. The data provided also only relates to actual plant production, whereas market participants need wider information on generator capacities, availabilities, demand, transmission capacities etc. Finally, production metering data is already collated (albeit not released) which makes the installation of additional, independent monitoring equipment unnecessary and the fees charged for these services raise barriers to the entry of new participants into the market and prevent customers from enjoying similar transparency. Although information service providers now provide some insight (for some market participants) into developments in the very least transparent markets, they therefore do not provide a solution to the urgent need for greater information release.

## 4 Suggested amendments to the Guidelines

As noted in the previous section, while concerns about collusion and confidentiality may apply to advance information on availabilities, they should not prevent the release of disaggregated information after the event or the provision of disaggregated information on installed capacities. In the UK, Spanish and Irish markets, participants can observe plant production and unplanned outages in real-time and market participants and customers in those markets enjoy high levels of understanding and confidence in the determination of prices in those markets. We therefore see no reason why other continental markets should not have similar levels of transparency. ERGEG should therefore amend the Annex to the Draft Guidelines to require:

- **Installed capacity** to be released by generation unit (rather than to state this as a preference) and to remove the possibility of aggregation by “primary energy source”;
- **Ex post data on actual generation on a unit -by-unit basis** to be released close to real time.
- The **retrospective** publication of capacity and production figures on a unit-by-unit basis for, at least, the last three years to facilitate comparison of prospective information against historic trends.

With respect to the Guidelines themselves, while we support the position that “information shall be generally made available to market participants unless there is a clear reason against it”, the text does not go further to explain in detail what those reasons might be. For example, the subsequent paragraphs refer to commercial confidentiality, cost-benefit analysis, national security and the ring-fencing of data but does not go on to explain exactly how those criteria might be applied and the limits on their application. As the discussion in the previous section highlights, we therefore have serious concerns that individual regulators and market participants could use these grounds to impose unwarranted restrictions on the availability of crucial information. The Guidelines should therefore provide precise explanations of these criteria and the limits on their application. Wherever possible the Guidelines should also be prescriptive rather than permissive. In particular, the Guidelines should be amended to:

- Include a very strong presumption in favour of information release and emphasise that the impact of collusion, confidentiality etc has already been factored into the formulation of the guidelines and, hence, that further derogations from the guidelines on these grounds are not warranted;
- Clarify that the benefits of transparency outweigh concerns over collusion and highlight the role that transparency can play in facilitating effective policing of collusive behaviour;
- Clarify that concerns over collusion or data confidentiality should not apply to standing data or to actual production data after the event and should solely be applied to advanced availability information; and
- Rule out different approaches based on the different “characteristics and details” of national electricity markets to prevent this being used as an excuse for differential information provision. For example, even if “hydro power accounts only for a small proportion of generation capacity”, information on filling rates could still be highly valuable given the role that hydro can play at the margin in many markets.

## 5 ERGEG should work towards mandatory information release

We fully support ERGEG's intentions as outlined in the consultation document. However, we are disappointed that ERGEG sets out an approach based on a "minimum acceptable standard" rather than setting out a vision for complete transparency and an associated ambitious timetable to achieve that goal.

Given the urgent need for greater transparency, we see relatively little the benefit in ongoing appraisal of the required information. The required levels of information transparency are already clear as demonstrated by the benchmarks provided by the UK, Spain and Ireland<sup>11</sup> where the benefits of timely and detailed generation data are already apparent.

While there is already a solid consensus on the release of demand and transmission data, we are sceptical that a sufficiently robust consensus on generation transparency will emerge without the threat and actuality of legislative proposals. Events on the grounds also suggest that there is also no immediate prospect of local, "stepwise", voluntary or negotiated initiatives delivering the required levels of information. For example:

- the Eurelectric paper on transparency only ever provides for installed capacity and actual production data aggregated by fuel type.
- Eurelectric also envisages a "step-wise" transition to the release of information on unplanned outages predicated on the prior achievement of liquid regional markets via the regional initiatives. This seems somewhat circular given the essential role that common standards of information release across the EU could play in the achieving the required levels of liquidity in the first place;
- As we have noted above, the levels of data provision remain poor across the EU and recent negotiated initiatives in Germany are far from sufficient to provide the required levels of transparency; and
- the classification of the required data as confidential in some markets may continue to remain a barrier in the absence of mandatory EU requirements to release that data (although the release of that data in other Member States already provides a prima facie case for changing the rules on ownership and dissemination of that data).

There is therefore a significant risk of delay in delivering the benefits of greater transparency if 2007 becomes a "year of appraisal" to identify the need for changes to the relevant regulatory or legal framework in the light of progress against voluntary Guidelines adopted toward the end of 2006. We would therefore urge ERGEG to begin work now with DG Tren and DG Competition to develop legislative proposals for the mandatory release of information across the EU with a view to bringing forward those proposals shortly after the final reports on the functioning of the electricity market at the end of 2006. In the meantime, individual regulators should support DG Competition efforts to seek to impose transparency requirements as remedies in competition cases, given the role that improved transparency can play in limiting, and improving scrutiny of, potential abuses of market power.

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<sup>11</sup> In addition, to some extent, to Nordpool, although disaggregated generation data is not provided.

## 6 Contact Details

To discuss any of the issues discussed in this response further or to request any additional information please contact:

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## Annex 1: The Impact of Data Release in Germany

The OTC day-ahead market in Germany typically trades between 08:00 and the EEX closing time of 12:00 CET.<sup>12</sup> Historically, information on outages has been provided only for nuclear plants and then after the event. In addition, since 11 April, the four main generators in Germany have released aggregated information on plant availability by fuel type via EEX at 10:00 and aggregated information on actual production on the following day. The newly published data has some serious limitations as it only has partial coverage (which we estimate to be less than half of German generation), it is highly aggregated by fuel type (even at the ex post stage) and it is not entirely clear which plants are included in the aggregated figures. Despite these shortcomings, the data still provides *some* additional insight into the derivation of German prices.

While the impact of this information release on the market has yet to become fully apparent, early indications are that the data may also be released too late to have a significant influence on day-ahead trading decisions in the day-ahead OTC power market prior to the EEX closing. Consequently, the potential for a significant disconnect between OTC and EEX prices remains. For example, on 20 April 2006:

- data released at 10:00 CET relating to the trading day 21 April 2006 indicated that 805 MW of lignite and 300 MW of anthracite were off line;
- 86 per cent of baseload trades and 82 per cent of peak-load OTC trades respectively took place *before* the information was released;
- there was little discernible difference between the OTC prices before and after the information release. For example, the average baseload price after the information release was only 6 cents higher than the average before release and peak-load prices were on average 79 cents *lower* after the information was released;
- The average OTC day-ahead OTC prices for baseload was €45.75/MWh against the EEX clearing price of €60.30/MWh and for peak-load, the average OTC price of €53.25 compared to an EEX clearing price of €72.32/MWh.

Historically traders have executed the bulk of their German volumes between 08:00 and 10:00 and have used the remaining time (10:00 to 12:00) before EEX closure to resolve any residual imbalances in their positions to avoid imbalance charges in Germany. Although, in theory, trading volumes in Germany could move to the period after the information release but prior to the EEX deadline, in practice, we think this is unlikely because the current pattern of trading reflects the earlier market closures in neighbouring markets to Germany<sup>13</sup> (with the associated capacity auctions closing even earlier). Market participants therefore seek to optimise their trading positions across these markets – including in Germany – early in the morning prior to the first market closures. Waiting for the German information would therefore effectively restrict market participants' ability to trade in other markets. (This is especially true since very little trades in the run up to market closure as participants seek to verify, calculate and submit their schedules and associated bids and offers into the exchanges). Market participants therefore face a trade-off between trading in the relatively liquid market earlier in the morning – but without the additional German outage information – or waiting to access a small window of very limited liquidity after the release of the information. This problem is further exacerbated by the late

<sup>12</sup> All times are Central European Time.

<sup>13</sup> The exchange markets close at 10:00 in Austria and Spain, 10:30 in the Netherlands, 11:00 in France, 11:55 in Italy and 12:00 in Denmark.

release of data on some days (eg, on the 24<sup>th</sup> and 25th April 2006, the data was not released until 10:17 and 10:29 respectively).

Although the market could change in the coming weeks, early experience with the additional information release in Germany therefore indicates that:

- The additional information has limited impact and usefulness for the day-ahead OTC market prior to EEX closure because the bulk of trading takes place before the information release;
- The information is not sufficiently complete, disaggregated or understandable to develop a detailed understanding of the underlying supply curve for generation; and
- There can still be significant disconnects between day-ahead OTC prices and EEX out-turn prices which may yield opportunities for the owners of the advanced information to benefit from trading at OTC market prices which fail to factor in the impact of outages on that day.