



## **AEP<sup>1</sup> Response to ERGEG Consultation on Connection Framework Guideline**

### **Main Points**

- AEP sees some benefits in harmonising connection rules; in the first instance this should be done by synchronous area, but efforts should be made to move towards common European standards for new plant
- The Connection Framework Guideline should aim to provide a set of minimum standards and should not be overly prescriptive unless there are clear benefits; where possible, a market approach should be taken to the provision of ancillary services;
- AEP believes that the FG should apply to new or refurbished plant; AEP is concerned at the suggestion that TSOs could unilaterally amend existing connection agreements;
- To avoid uncertainty and additional risk, connection arrangements for existing generation should only be changed where there is an overriding system need and where it is efficient to do so;
- The FG should include a reference to the security standards which underpin connection rules;
- Commercial issues, e.g. cost allocation, are not covered in the draft FG; these will need to be dealt with at some stage, but AEP would prefer that this is done in a future Guideline;

### **General**

The Association of Electricity Producers (AEP) welcomes this first draft Framework Guideline produced by ERGEG. Physical connection requirements do not represent a major barrier to the liberalisation and integration of the EU market, and should not be unduly contentious. For this reason, connection is a sensible choice for the first Framework Guideline.

The EU electricity network is mature and has high standards of reliability in international terms. Over the last ten years some significant outages have occurred, notably the Italian blackout of 2003 and the 2006 incident which originated in Germany. In AEP's view, these incidents were primarily due to operational errors

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<sup>1</sup>The Association of Electricity Producers (AEP) represents large, medium and small companies accounting for more than 95 per cent of the UK generating capacity, together with a number of businesses that provide equipment and services to the generating industry. Between them, the members embrace all of the generating technologies used commercially in the UK, from coal, gas and nuclear power, to a wide range of renewable energies.

rather than lack of adequate connection requirements. AEP is aware of some difficulties with reconnecting renewable plant after the 2006 event, but believes that straightforward technical solutions are available to tackle this issue.

Given the high reliability standards and the relatively minor impacts on market integration mentioned above, the Connection Framework Guideline should aim to provide a set of minimum standards and should not be overly prescriptive unless clear benefits can be identified. Where possible, market approaches rather than mandatory standards should be used to tackle connection issues. AEP recognises that rules will need to evolve to reflect developments such as the increase in renewable generation, notably wind. However, all changes to standards should be proportionate and should be fully justified by the TSOs.

As a general principle, connection requirements should only relate to issues which are under the control of a generator, not those depending on the wider power network or on other generators. Requirements should also be non-discriminatory.

AEP emphasises the importance of clear definitions and consistent use of terms in the Framework Guideline. “Significant” generation/consumption units should be defined within the FG. There is a lack of clarity in the use of the term “grid”, which at times appears to refer to distribution as well as transmission networks. In general, the respective responsibilities of TSOs and DSOs need to be more carefully considered.

## **Response to Consultation Questions**

### **1. Are there additional major problem areas or further policy issues that should be addressed within the Grid Connection Framework Guideline?**

The draft Framework Guideline does not cover commercial or process issues, e.g. the allocation of costs or deadlines for connection. Moreover, it is also silent on the priority or guaranteed access for particular types of generation, e.g. renewables, which applies in some Member States. These issues are likely to be more important for establishing a level playing field for generation in the EU market than purely physical connection requirements. They will need to be tackled at some stage, but AEP’s preference would be to do this in a later Framework Guideline.

If ERGEG were to decide to include commercial requirements in the Connection Framework Guideline, it should revise the Impact Assessment and conduct a further consultation, as the implications for market players would be significant.

Connection requirements in any market are underpinned by the network security standard in force. For clarity, the Framework Guideline should make reference to these underlying security standards. The various synchronous areas within the EU have differing standards, reflecting their different network characteristics, and AEP assumes that these will be maintained unless clear justification is provided to the contrary.

**2. What timescale is needed to implement the provisions after the network code is adopted? Is 12 months appropriate or should it be shorter or longer?**

If the provisions apply to new plant only, as suggested by our response to Q.4, twelve months seems a reasonable time scale to implement the Connection Network Code. “New plant” should be defined as plant which is not operational and does not have a connection agreement at the time when the Framework Guideline takes effect. If a wider definition is applied, e.g. plant already ordered or under construction, or existing plant, a longer transition will be required.

**3. Should harmonisation of identified issues be across the EU or, perhaps as an interim, by synchronous area?**

As the physical connection of generation does not seem to raise major problems and generators by definition can only connect to one synchronous zone, the priority should be to harmonise practice by synchronous area. Reserve requirements on, for instance, the UCTE and Irish systems are bound to be different, reflecting their specific characteristics.

Nevertheless, AEP recognises that there are potential benefits in terms of cost savings and simplified procurement if connection standards for new plant can be harmonised at European level. TSOs should therefore promote the convergence of standards where it is beneficial and avoid any divergence unless this is clearly necessary. European standards should also be aligned with international standards as far as possible to ensure greater competition in plant and equipment.

**4. Should the requirements apply to existing grid users? How should it be decided? To which existing users should the requirements apply? How should timelines for transitional periods be set? Who should bear any costs of compliance?**

In AEP’s view the requirements should apply only to new generation, “new” being defined as plant which is not operational and does not have a connection agreement at the time when the Framework Guideline takes effect. Plant undergoing major refurbishment could also be regarded as “new”.

Existing plant and plant under construction will have agreed connection arrangements with the TSO and it is important that these arrangements are not subsequently changed unless the generator agrees. Any suggestion that potentially costly new requirements could be imposed in future is likely to make companies more cautious about investment. In the case of older plant, changes in the connection regime could even prompt generators to close capacity. This would then have the effect of eroding security margins, contrary to the effect sought.

AEP is therefore particularly concerned by the statement in para 1.6 that TSOs should be able to amend existing connection agreements unilaterally to reflect the Network Code. Taken in conjunction with para 1.1, there is a risk that new requirements will be imposed on generators even if the costs outweigh the benefits. Apart from the negative impact on investor confidence, it would be a major process to amend all connection agreements.

AEP believes that TSOs should not impose additional requirements on generators unless there is an overriding system need and it is efficient to do so. Should such an overriding need arise, it may well be that the power system as a whole will benefit, in which case the costs should be borne by the TSO and spread across all users. TSOs should justify any changes to existing requirements in a transparent fashion, in particular through full cost-benefit analysis.

**5. The framework guideline identifies intermittent generation, distributed generation and responsive demand as requiring specific grid connection guidelines. Is it appropriate to target these different grid users? How should the requirements for intermittent generation, distributed generation and responsive demand differ from the minimum requirements? Is there a need for more detailed definition / differentiation of grid users?**

AEP agrees that there should be a standard set of minimum requirements and then, where justified, specific rules for particular types of generation, reflecting the different technologies. It should be borne in mind that specific rules may be needed for plant other than the three categories mentioned, as not all units will necessarily be able to provide all the services mentioned. Where possible, market approaches should be used: if some technologies cannot provide a given ancillary service, they should have the option of procuring it from the market. Those technologies which can provide the service can then be rewarded for doing so.

Responsive demand will become more important as more renewable capacity is connected. Here too, market mechanisms, e.g. interruptible contracts, load management etc, should be promoted, so that demand response can be encouraged on a cost-effective basis.

**6. Is it necessary to be more specific regarding verification, compliance and reinforcement?**

AEP believes that more detail is indeed needed on this issue. TSOs will draft the Network Codes, impose the minimum standards and monitor compliance (para 1.16). Given that TSOs are a party to connection agreements, this could result in a conflict of interest, with TSOs acting as “judge and jury”. The FG should therefore clarify responsibility for verification, compliance and enforcement and ensure an equitable regime for all market players.

**7. What are the key benefits and types of costs (possibly with quantification from your view) of compliance with these requirements?**

AEP welcomes the obligation on TSOs to quantify costs before proposing minimum connection requirements (para 1.1). This obligation should also apply to other elements of the Framework Guideline, i.e. information exchange and the connection regime for specific grid users.

As mentioned at the start of this response, AEP believes that the EU electricity network operates to high standards of reliability and that connection is not generally a problem area. The focus should therefore be on codifying the agreed minimum

requirements, ensuring that they are met throughout the EU and dealing in a proportionate and consistent way with any new developments potentially affecting system security.

AEP acknowledges that some reductions in manufacturing costs could be achieved if connection requirements are standardised across Europe. These benefits will mainly accrue as new plant is built and commissioned. This reinforces the need to focus the Framework Guideline on new plant. Retrofitting existing plant to meet new standards will inevitably be less cost-effective and may not produce benefits proportionate to the cost.

#### **8. How should significant generation and consumption units be defined?**

The primary focus for the FG should be larger generating plant, which has a greater impact on system security. AEP's initial view is that 100 MWe is an appropriate threshold for a "significant" generation unit. A 50 MWe threshold could apply in smaller, e.g. island, systems.

There would also be benefits in standardising requirements for smaller plant. Clearly these requirements should be proportionate, taking into account the reduced security impact of such plant and the fact that it cannot benefit from the trading opportunities offered by the transmission network. TSOs should justify the application of requirements to all sizes and types of generating plant.

#### **9. For what real-time information is it essential to improve provisioning between grid users and system operators? Do you envisage any problems such greater transparency? What are the costs (or types of costs) and benefits you would see associated with this?**

AEP would like to see TSOs publish greater information on the status of the network and believes that this issue should be dealt with in the upcoming Electricity Transparency Guideline.

In the GB market, generators already provide the TSO with comprehensive information both ex ante and ex post. AEP does not envisage that the Framework Guideline would result in the requirement to provide further data.