

Texas Power Outage – Lessons from the EU regulators’ perspective

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Power outage in Texas

The sheer shock of the power cuts in Texas affecting over 4 million customers, the loss of life, the wide-spread economic damage and political fallout, is mirrored in some ways by the predictability of accusations immediately following suit.

Some (wrongly) blamed renewables. For others the laissez-faire market instincts of Texans were in the crosshairs, whilst others put it down to plain old poor planning.

Several have given well-rounded accounts of the events unfolding in Texas, amongst them the [International Energy Agency](#). Many question whether the events in Texas are a wake-up call for us in Europe.

At ACER, we find the events in Texas instructive and, just to come clean here at the outset, giving grounds for optimism for Europe’s integration efforts. But, offering valuable lessons too.

POTENTIAL LESSONS AND REASSURANCES FOR EUROPE

The European market integration project is the most ambitious - and therefore the most demanding - multi-country power integration project in the world. For many, it is a prerequisite for a more efficient, secure and sustainable power market and a successful clean energy transition. The burning question is whether such an outage could happen in Europe and if so, could we handle it?

Power system operation and planning

First, the events in Texas highlight the energy security risks related to extreme weather events. In Texas, 30-40% of generation capacity became unavailable at short notice with dire consequences.

Whilst one cannot fully eliminate the risk here in Europe of an extraordinary cold (or hot) spell suddenly taking massive generation capacity offline, a tremendous collective effort has been undertaken over the last ten years to define and implement ambitious European rules precisely to mitigate such a risk.

To name but a few examples: coordination and coherence of risk assessments and mitigating actions via common rules in order to build trust between Member States during electricity crises; European rules to ensure the system operates better in normal circumstances whilst requiring electricity grid operators to support each other in an emergency, blackout or restoration state; significant strengthening of the regional coordination of both operational and market aspects through the establishment of regional entities.

Europe’s common rules aim to plan for, mitigate and tackle the likes of the events in Texas.

Second, whilst the amount of generation in Texas unexpectedly falling offline would have proved challenging for any power system to handle, criticism has been rendered of Texas’ reserve margins being unusually thin. Under normal circumstances, this can be beneficial as it lowers costs for

industry and households. But, when thin reserves become even thinner, trouble looms. This brings up the need to assess and plan for having sufficient resources under different scenarios.

We now have an agreed approach to European-wide resource adequacy assessment (with different scenarios and different time horizons from seasonal to 10 years) that will better inform national resource adequacy planning. Addressing system adequacy needs in a coordinated manner should help maintain the desired security of supply levels at the lowest possible cost.

Here, ACER's market monitoring shows that addressing adequacy at pan-European (rather than national) level would yield annual benefits of approximately 3 billion Euros. Put simply, having access to resources in neighbouring Member States lowers the overall cost of ensuring sufficient resources across Europe – an issue of increasing importance in an era of massive renewables build-out. It also facilitates the entry of new, innovative players to the market; after all, keeping unnecessary excess capacity in the system can artificially depress prices, thus keeping new offerings from ever gaining ground.

Whilst interconnectivity brings many benefits, implementing the “playbook” remains key

Third, sitting in between two large interconnected multi-state systems, Texas remains an unusually isolated electricity system by European standards. This of course is by design. It has benefits, like being relatively immunised from cascading events such as the [electricity system split which occurred in Europe on the 8th of January](#) (an event being investigated by an Expert Panel which includes ACER, and from which lessons will be learnt and recommendations made).

As events in Texas have shown, however, a lack of interconnectivity also holds drawbacks - indeed very considerable ones - for security of supply.

Europe's electricity market is interconnected for decades. Such interdependence bring benefits for generators (bigger market), upsides for industry and households (choices of lowest available prices amidst secure supply) and for those tasked with operating the system (reducing the costs of balancing, reserves and system operation), if properly coordinated. In the case of local system stress, an EU Member State can count on its neighbours' almost instantaneous support.

Here, the reminder for Europe is that safe and secure operation of our highly interconnected power system is complex. It requires an elaborate “playbook” with multiple rules and safeguards. Having built up over many years this playbook, it needs to be implemented with diligence and supplemented by strong operational cooperation on the ground at both regional and European level. This will need close monitoring by the national regulators and ACER, updating the rules when appropriate.

Continued political commitment is crucial

Finally, the political dimension to this should not be overlooked either. Again here, events in Texas prove instructive. Texas suffered a power shortage not least because of an acute gas supply shortage. This led to state authorities temporarily cutting gas exports which in turn negatively impacted parts of Mexico, in some cases even forcing blackouts.

Notwithstanding that this in Europe would be illegal, it is worth dwelling a bit on the implications - in essence, the implications of interdependence.

Interdependence requires vigilance to remain reliable. It also needs political nurturing if the next phase of Europe's clean energy transition, as seems likely, will require further deepening of our integrated energy systems. As Americans would say, we cannot have our cake and eat it too.

“Being in it together” requires coordination of efforts, mutual acknowledgement of needs and sustained political commitment. Political discourse in Europe would do well here to bear in mind the recent lessons from Texas.