

*Demand Response through aggregation
to participate in the wholesale electricity market*

A fast track approach to have DR in the market this winter

Elements for the
European workshop on Demand Response

Only 2 provisions to add in national regulatory framework to have DR participate in the wholesale markets ... hence shave wholesale prices

1) Allocated volume: DR aggregators to bear balance responsibility to deliver, as generators do

- The settlement of balancing positions (by the TSO or equivalent) should, when considering DR aggregators, count the volumes of DR delivered as their input, in the same way as for generators regarding the volumes of electricity they deliver.
- As set forth by article 5 and recital 15 of the Electricity Regulation (EU)2019/943.

2) Certification: Aggregators need be allowed to provide evidence they deliver DR

- To this end, they may use data from TSOs and DSOs meters or from their own sub-meters, and compare the load as they reduce it, to what it would have been without DR (i.e. calculate a 'baseline').
- Subject to certification: prior approval by NRA and on-going audits for verification



Include these two provisions in settlement rules approved by NRA

➤ Any Member State can implement within a couple of weeks

- ✓ No reason to wait for a future network code, that may eventually help harmonize later, using experience gained
- ✓ Option: Member State may wish to also adopt a legislative basis (e.g. when implementing Regulation (EU)2022/1854), stating that:

“Demand response delivered by consumers, including via aggregators, is allowed to participate in all electricity markets as an alternative to generation and shall bear similar obligations to deliver, reflected in similar balance responsibilities.”

No need for further changes to start with, hence immediate Other issues (corrected model, compensation,...) later on

- No need to change imbalance settlement rules for market parties other than DR
 - I.e. use a “*model where imbalances are settled*” [as per Recital 39 of Directive (EU) 2019/944] also called “uncorrected model”]
 - Suppliers will be compensated via their BRP for the positive imbalance created by Demand Reduction, exactly as they would when consumers reduce their consumption themselves
 - Thus compensation burden is “automatically” mutualised via the usual settlement among BRPs, and this avoids creating a barrier to DR (as forbidden by art.17-4)



Implementation is simple and immediate

- Later, Member State may decide to introduce “perimeter corrections” for suppliers’ BRPs, and an improved compensation mechanism if any
 - They may wish to use another price (e.g. spot price rather than positive imbalance price)
 - They should be careful not to create a barrier to DR, hence should mutualize compensation burden among suppliers/BRPs also via settlement by TSO
 - They should not place the burden on DR to start with, and, even later on, they should implement the net benefit test to see whether any contribution from DR is justified at all – not likely given the US data



Choice of another model and fine tuning of financial compensation including implementation of net benefit rule can be postponed, no worries

FAQs on the implementation of the fast-track and later evolutions

Would DR create physical imbalance in the system?

No, as long as DR delivered volumes equal sales: DR substitutes generation in the market, so that generation is reduced. Then DR is delivered, so that demand is reduced. In case deliveries \neq sales, DR aggregator would bear the same balance responsibility as for generators, i.e. to pay for the difference.

What about the choice of models left to Member States?

For those MS who have not opened their wholesale market to DR yet, the fast-track provides a solution to do so immediately. Further improvement will still be possible, taking into account the experience thus gained, as well as on-going discussions and future network code. For example, they may evolve to a model 'where perimeter corrections are introduced' and 'financial compensation' paid by 'electricity undertakings', while ensuring not to create a barrier to DR, in a way that would also comply with Directive (EU)2019/944.

Would (alternative) suppliers be penalised?

No, for 3 reasons.

- (i) Supplier of curtailed consumers will be paid at positive imbalance price for the curtailed volume, exactly as they are now when consumers reduce their load themselves
- (ii) All suppliers will benefit from DR reducing prices in the wholesale market, hence their sourcing costs
- (iii) Suppliers can also become aggregators and run this new business (+ they are in a favourable position to compete with independent aggregators, with more info, consumers, etc.)

What happens with the compensation now and later?

In the fast-track, suppliers receive compensation for curtailed volumes at positive imbalance price, as part of the settlement of imbalances via the TSO. Thus the costs are spread by the TSO among market parties so that it does not create a barrier for DR, as required by art.17-4 of the Directive.

Later evolution to other approaches remain possible (with other models, prices, etc.) as per the Directive and will be discussed for the future network code.

Thank you for your attention! 😊