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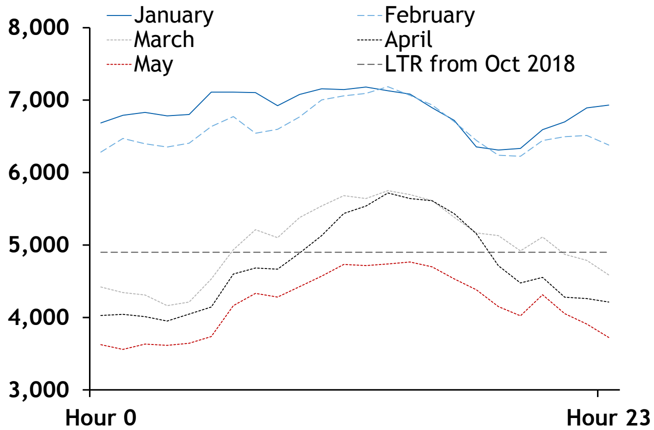
# Germany-Austria power zone split special report

German and Austrian energy regulators have agreed to split their combined power market zone from 1 October 2018. This white paper features content from the Argus European Electricity Report.

- Germany, Austria agree market split in October 2018
- Germany, Austria to test run split from July 2018
- EEX to launch Austrian futures
- Austria, Germany agree on at least 1GW of redispatch
- Hungary 2019 feels effect of German-Austria split

Average DE-AT commercial flows hourly profile MW




## Germany, Austria agree market split in October 2018

The German-Austrian power market price zone will be split on 1 October next year after the two countries reached an agreement on 15 May.

German energy regulator Bnetza in October initially tasked Germany's four transmission system operators (TSOs) to implement congestion management on the German-Austrian border by 3 July 2018. Austria had strongly opposed a market split previously.

But Germany and Austria have now agreed on a start of congestion management on 1 October, Bnetza and its Austrian counterpart E-Control said. The two countries will consult on their agreement with neighbouring power market operators and the European Commission, they said.

The future of the single price zone is also under scrutiny from the bidding zone review currently being conducted by European system operators association Entso-E. Bnetza had previously said it would shelve plans for a split should Entso-E back the single price zone. But the agreement between Austria and Germany is "the final step" in the negotiations and the joint bidding zone will be split even if Entso-E concludes it is not necessary, Austrian regulator E-Control said.

TSOs will allocate 4.9GW of capacity between Germany and Austria in long-term cross-border auctions, which is equivalent to around 50pc of Austrian peak demand, under the agreement. Bnetza last year had put the average available capacity on the German-Austrian border at 3-4GW.

In return for allocating higher cross-border capacity of 4.9GW in long-term auctions, Austrian TSO APG will provide its German counterparts with redispatch capacity to help stabilise the German grid. Where redispatch is used, TSOs call on power plants to ramp up or down to solve regional bottlenecks.

If Austrian power plants are unable to provide sufficient redispatch capacity, the anticipated long-term allocation rights of 4.9GW will be cut. But this is not to be expected, APG said. And market participants holding long-term capacity rights will not incur financial losses, Bnetza said.

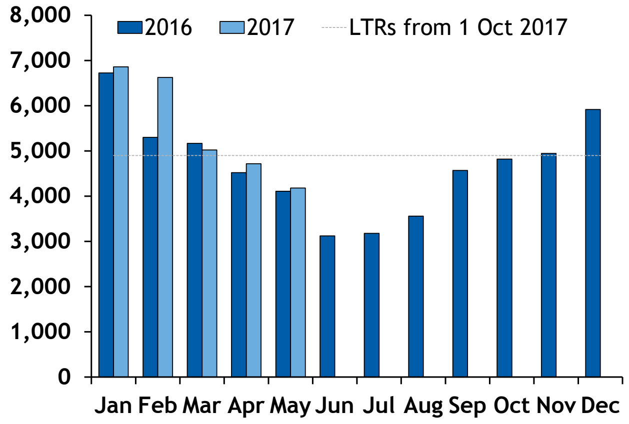
Austria will join the central west European (CWE) day-ahead market coupling scheme, which includes the joint German-Austrian price zone, France and the Benelux countries. The aim is to include Austria in the flow-based market coupling day-ahead allocations, which launched in the CWE market area in May 2015, Bnetza said.

Hourly commercial power flows from Germany to Austria will exceed the 4.9GW allocated in the long-term auctions by the cross-border capacity allocated in the day-ahead market. The two regulators have not commented on how intra-day capacity allocations will be handled after the split of the joint price zone.

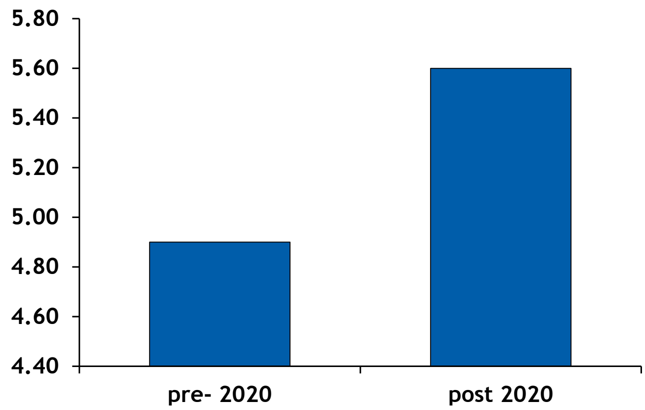
Bnetza had backed the split, saying that commercial flows on the German-Austrian border have to be brought more closely into line with available physical interconnector capacity. At present, commercial flows in the joint bidding zone, in place since 2001, are theoretically unlimited and can exceed 10GW in certain hours.

While Austrian wholesale power prices are still likely

German-Austrian commerical flows MW




Expected DE-AT capacity GW




to increase, and German prices are likely to fall compared with the status quo of a single price zone, the agreement reached setting a minimum commercial German-Austrian capacity of 4.9GW will ease market concerns of a more severe cut to cross-border capacity.

And German-Austrian physical interconnector capacity is to increase post-2020, to around 5.6GW by 2024.

European energy traders association Efet had called on Germany to push back the potential split of the single price zone to 1 January 2019 at the earliest to avoid "nullifying" trades already concluded on the 2018 power contract.

Bnetza has been eager to start congestion management on the border with Austria before the 2018-19 winter period. Germany's winter grid reserve needs will fall to 3.7GW in 2018-19 in case of a split of the joint bidding zone but would have remained at 7.7GW, the level in the 2016-17 winter, in a scenario of a continuance of the single price zone.

## Germany, Austria to test run split from July 2018

Germany and Austria are to start testing of congestion management on their borders on 1 July 2018, before going live three months later, Austrian energy regulator E-Control said.

E-Control and its German counterpart Bnetza agreed on 15 May to implement congestion management on the border on 1 October 2018. This will effectively split up the joint German-Austrian power market bidding zone.

Austria will join the Central West European (CWE) day-ahead market coupling scheme, which includes the joint German-Austrian price zone, France and the Benelux countries. The aim is to include Austria in the flow-based market coupling day-ahead allocations, which launched in the CWE market area in May 2015.

Testing for the market split will start on 1 July 2018, with the aim of allowing Austria's transmission system operator (TSO) APG, German TSOs 50Hertz, Tennet, Amprion and TransnetBW and power exchanges to prepare for the first live on 1 October, E-Control said. Market participants might also be included in test operations, E-Control said.

E-Control and Bnetza have agreed to make available 4.9GW of capacity between Germany and Austria for long-term cross-border auctions.

The first auction for long-term capacity allocations is likely to take place "a few days or weeks" before 1 October 2018, E-Control said.

Details of the auctions, including how much of the 4.9GW will be allocated in yearly auctions and how much in monthly cross-border auctions, are still unclear, the Austrian regulator said.

On an intra-day basis, Austrian and German TSOs will prepare the start of capacity allocations, in line with standardised processes on other borders, E-Control said.

Bnetza had previously told Germany's four TSOs to implement congestion management on the border by 3 July 2018, before its agreement with E-Control, which had opposed splitting the joint bidding zone.

## Austria, Germany agree on at least 1GW of redispatch

Austria will provide at least 1GW of redispatch capacity to Germany from winter 2018-19 under an agreement reached between the two countries' energy regulators on the implementation of congestion management on their border.

Redispatch capacity provided by Austrian transmission system operator (APG) to German counterparts for grid stability measures will step up to 1.5GW in winter 2019-20 under the agreement, German regulator Bnetza said.

Austrian redispatch capacity available to German TSOs could exceed the 1GW and 1.5GW earmarked for winter 2018 and winter 2019, respectively, because power plant operators in Austria will receive compensation for redispatch measures and could opt to provide more, Bnetza said.

The German regulator and its Austrian counterpart E-Control on 15 May agreed to introduce congestion management on the German-Austrian border on 1 October 2018. This will split the joint German-Austrian power market bidding zone.

The two regulators agreed to allocate 4.9GW of commercial capacity between Germany and Austria in long-term cross-border auctions. Bnetza last year had put the average available capacity on the German-Austrian border at 3-4GW.

In return for higher capacity made available for commercial trade, Austria agreed to provide redispatch capacity to help German TSOs stabilise the German grid. Where redispatch is used, TSOs call on power plants to ramp up or down to solve regional bottlenecks.

Austria will join the central west European (CWE) day-ahead market coupling scheme, which includes the joint German-Austrian price zone, France and the Benelux countries. The aim is to include Austria in the flow-based market coupling day-ahead allocations. Testing for day-ahead allocations will start on 1 July 2018 before going live on 1 October.

### Summer reserve

Austria is considering the future of the country's power reserve contracts with thermal plants for domestic redispatch measures, energy regulator E-Control said.

Austrian APG in 2015 signed redispatch contracts with the 400MW gas-fired Timelkam combined-cycle gas turbine (CCGT) power plant and 400MW of capacity from the 832MW Mellach CCGT unit.

APG can call on the two units for grid stability measures in the spring and summer months, from 1 May - 30 September, for a three-year period from 2015-17.

Austria in principle is planning to extend the contracts beyond this year, E-Control said.

The exact design and the extent of the reserve are still under review and will be decided on within the next few months, E-Control said.

Austrian utility Verbund, the operator of the 832MW Mellach CCGT, said it is awaiting new framework conditions for the regulatory restructuring of the Austrian grid reserve before making a decision on the future of the plant.

## EEX to launch Austrian futures

Leipzig-based European energy exchange EEX will launch Austrian only futures and will expand its offerings of Germany-only futures in response to the split of the joint German-Austrian power market price zone.

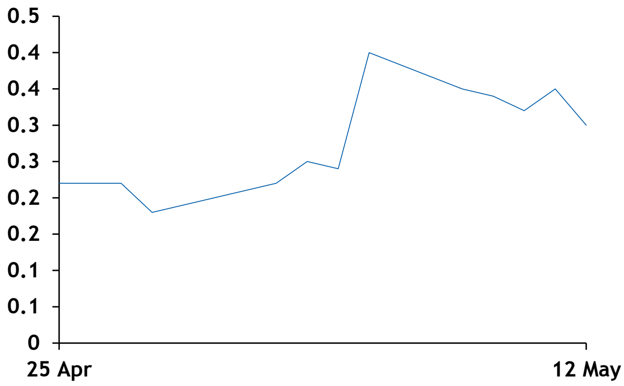
The Austrian-only futures — or Phelix-AT — will launch on 26 June. EEX will offer peak and base load contracts with a monthly, quarterly and yearly maturity.

EEX will also add daily and weekly maturities to its Germany-only — or Phelix-DE — futures products on the same day. The exchange launched Germany-only futures in April with monthly, quarterly and yearly maturities in anticipation of a potential split, and said it was looking into launching Austrian futures.

The joint German-Austrian bidding zone will split on 1 October 2018

The Phelix-DE and Phelix-AT products will be settled against the common German-Austrian day-ahead auction price until the split becomes effective.

DE-AT coupled zone vs DE zone EEX 2019 spread €/MWh




Uncertainty remains over which basis the existing Phelix German-Austrian futures product will be settled after October 2018.

EEX said 4.1TWh has traded on its Germany-only futures products since they were launched, while 95.6TWh traded on its existing Phelix German-Austrian futures products in the same period.

The exchange will also list Germany-only products with monthly quarterly and yearly maturities on its non-multilateral trading facilities (MTFs) platform on 26 June. Physically settled transactions concluded through non-MTFs are not considered financial instruments under the EU's Markets in Financial Instruments Directive (MiFID 2).

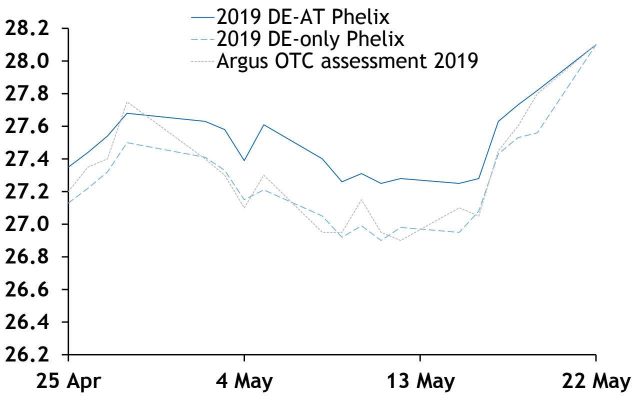
Chief executive Peter Reitz said the split is "an initiative that we still think is a step in the wrong direction. However, at this stage it is essential for us to provide solutions and to support the market participants."

## Agreement on split reduces price impact

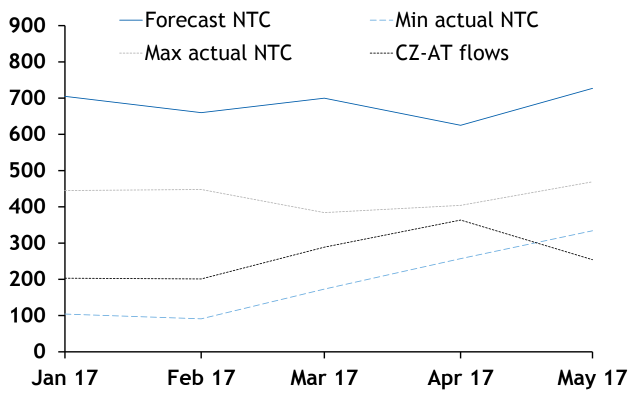
An agreement between German and Austria to make available at least 4.9GW for commercial trade on their border after splitting up their joint power bidding zone on 1 October 2018 has led to narrowing price spreads between German-Austrian and German-only contracts as the impact on the future local markets relative to the status quo is likely to be limited to demand-intensive hours in winter.

German energy regulator Bnetza and its Austrian counterpart E-Control on 15 May agreed to introduce congestion

OTC vs EEX exchange products 2019 base €/MWh




Czech-Austria NTC vs commerical flows MW




management on their border on 1 October next year. This will split up the joint German-Austrian bidding zone.

As part of the agreement, Bnetza and E-Control will allocate 4.9GW of commercial capacity between Germany and Austria in long-term cross-border auctions. Additional commercial capacity on the border can be allocated in day-ahead auctions as it is the aim for Austria to join the central west European (CWE) day-ahead market coupling scheme which includes the German-Austrian price zone, France and the Benelux countries.

The agreement increases the likelihood that German-Austrian commercial flows will comfortably exceed 5GW in most hours after the split. Bnetza had previously mooted reducing commercial flows on the border to the level of the physical interconnector capacity between the countries, which it pegged at around 3-4GW until the end of this decade. And the German regulator had eyed the start of congestion management on 3 July 2018 before pushing it back by three months. Austria previously opposed a split up of the joint bidding zone.

In the lead-up to the German-Austrian agreement, the physical German base-load contract for delivery in 2018 held a discount of up to €0.21/MWh to the German-Austrian Phelix futures product on the European Energy Exchange (EEX), on expectations that lower German-Austrian flows will weigh on the future German local price. The physical 2019 base-load contract in the OTC market — based on Argus assessments — had held a discount of up to €0.31/MWh to the German-Austrian futures product ahead of the agreement.

But the 2018 OTC contract on 22 May closed at €30.20/MWh, just €0.05/MWh below the settlement of the German-Austrian Phelix futures on the EEX exchange, while the 2019 OTC contract closed at parity with the German-Austrian product, at €28.10/MWh. The discount of the German-only futures product, which the EEX launched on 25 April, to the existing German-Austrian Phelix also narrowed sharply for delivery in 2018 and 2019 since the German-Austrian agreement on the market split. The EEX will launch Austrian-only futures on 26 June.

## Seasonal impact

German-Austrian commercial flows are theoretically unlimited in the joint bidding zone. But commercial flows in that direction rarely exceeded 8GW in 2016 and so far this year, according to data from European system operators association Entso-e.

A future local Austrian price is likely to be at a wider premium to a local German market primarily in the demand-intensive winter months, while spring and summer months should be more closely in line with the German price.

The Entso-e data show that average German commercial exports to Austria did not exceed 4.9GW — the minimum to be made available for trade following the split up — in April through to October last year and were again below that level in April and so far this month. And hourly Entso-e data suggests that Austrian prices would be less exposed to a wider premium to a German market in winter months with unseasonably high temperatures.

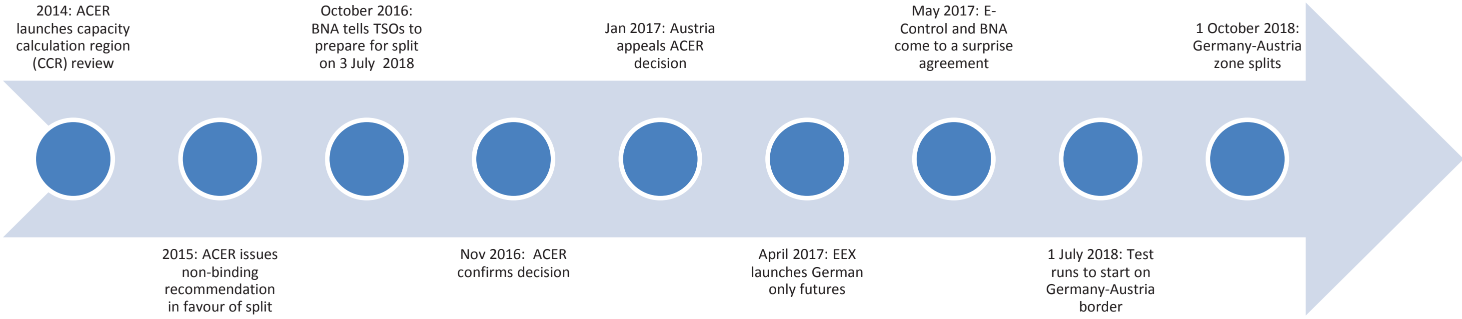
Hourly German-Austrian flows only rarely exceeded 4.9GW in late off-peak morning and peak-load hours in March this year, when temperatures were above the seasonal norm with the result of easing heating demand in Austria and in Germany. The hour with the highest commercial flows from Germany to Austria in March was hour 13, with average flows reaching 5.8GW.

## Transits

Power transits in the wider region might change following the introduction of congestion management on the German-Austrian border, including in the Czech-Austrian direction, given plans for phase shifters on that border.

EU energy regulators agency Acer argued in November, in its decision on rejigging capacity calculation regions (CCRs) in central west (CWE) and central east (CEE) regions, that a split of the joint bidding zone is necessary because the interconnector between Germany and Austria can accommodate the physical flows resulting from cross-border trade only at the expense of "major structural congestion" on neighbouring borders, namely the German border with Poland and the Czech Republic and on the Austria-Czech Republic border.

Net transfer capacity (NTC) on the Czech-Austrian border is routinely revised lower from previously forecast levels because of critical load flows resulting from unwanted loop flows. Commercial flows from the Czech Republic to Austria




have averaged just 201-364MW in January to this month, well below the previously forecast NTC of 625-727MW as cross-border capacity was cut on an intra-day basis.

Austrian TSO APG plans to bring on line so-called phase shifters on its border to the Czech Republic in 2019 with the aim of increasing east-west transport capacity. And two additional phase-shifting transformers on the Czech-German border are to come on line this summer. Commercial power transmission capacity from Germany to the Czech Republic and Poland had risen following the installation of the first two phase shifters on the Czech-German border in January and a similar effect is likely on the Czech-Austrian border once phase-shifters are in operation.

This could increase power transits from Germany to the Czech Republic and onwards to Austria by 2019 and could limit the impact of the bidding zone split up on days when market conditions would prompt Austria to draw on higher imports than the German-Austrian capacity allocated through long-term cross-border allocations and on a day-ahead and intra-day basis.

## Hungary 2019 feels effect of German-Austria power split

The Hungarian 2019 power contract premium to the German contract has expanded to new highs following confirmation of the Germany-Austria market split planned for October next year, while some market participants expect delivered prices to Slovenia and Hungary to rise by €0.50-2.00/MWh relative to Germany following the split.

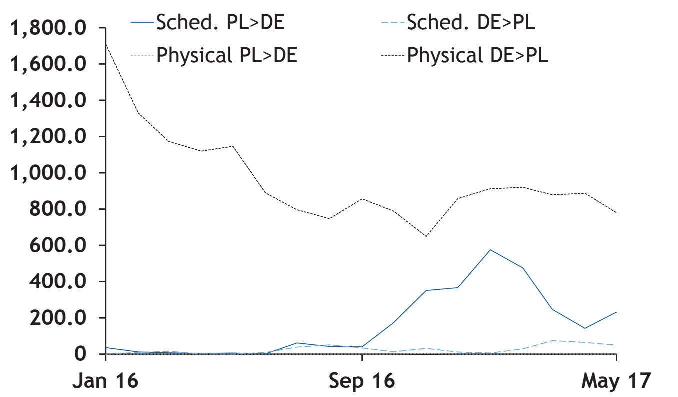
The Hungary 2019 base-load premium to the equivalent German contract rose to €10.20/MWh on 17 May and ended that week at a premium of €10.10/MWh, up from an average premium of €8.85/MWh so far this year. The outright contract price has continued to hit new highs, up from trade at €37/MWh at the beginning of the week when the split was confirmed. And the Hungarian 2018 premium to Germany reached a new high of €9.70/MWh on 17 May, up from an average of €8.15/MWh since the beginning of the year. The higher premiums followed the announcement on 15 May that the German-Austrian price zone will split on 1 October next year.

The effect of the split on power prices in neighbouring Slovenia and Hungary remains uncertain, with market participants expecting delivered prices to rise by around €0.50/MWh in relation to German prices, although the premium could reach up to €2/MWh, depending on the level of cross-border capacity made available between Germany and Austria. The impact should be reflected in higher capacity cross-border capacity costs to import to Hungary and Slovenia from Austria, likely noticeable in annual auctions at the end of this year. Grid operators will allocate 4.9GW of capacity between Germany and Austria in long-term cross-border auctions, which is equivalent to around 50pc of Austrian peak demand, under the split agreement.

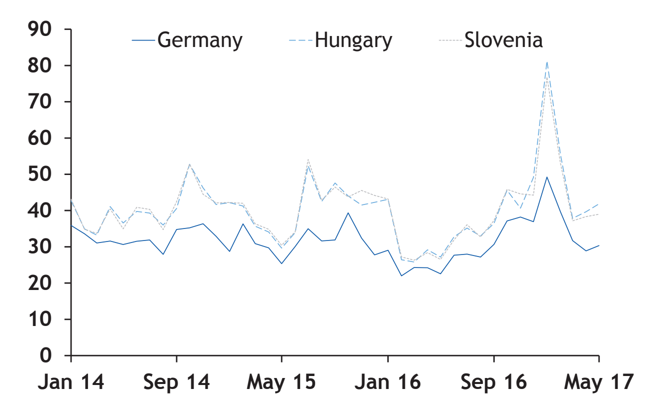
German energy regulator Bnetza last year put the average available capacity on the German-Austrian border at 3-4GW.

The Austrian and Slovenian day-ahead markets coupled last year, but cross-border capacity between the two markets is often made unavailable on a short-term basis by Austrian

DE-PL border flows MW




CEE spot prices €/MWh



grid operator APG, and it remains to be seen whether this will continue when the Austrian market separates from Germany.

German exchange EEX will launch futures contracts for the Austrian market on 26 June, having introduced Germany-only futures in April.

Slovenia and Hungary are due to get their first direct interconnector at the end of 2018, with a planned net transfer capacity of around 1GW. The cable is likely to increase convergence of Hungarian and Slovenia power prices, which already tend to trade within a €1/MWh spread of each other on forward contracts, although the spread on the two exchanges is often more volatile.

## TSOs protest Germany-Austria CBC stipulation

Grid operators to the east of Germany are concerned that a minimum long-term cross-border capacity (CBC) stipulation on the Germany-Austria border following the two markets splitting next year infringes EU law as it ignores capacity allocation on their borders.

Transmission system operators (TSOs) from the Czech Republic, Hungary, Poland, Slovakia and Romania said in a joint statement that they consider that the agreement between German grid regulator Bnetza and its Austrian counterpart E-Control fails to offer a level playing field for trading in central Europe and will not "bring an end to the long-lasting preference of Austrian-German energy trade at the expense of neighbouring European member states".

The TSOs are in favour of the German and Austrian markets splitting, as it will manage congestion between the two countries, in particular power transiting through the Polish and Czech markets. But the decision to set a minimum cross-border capacity of 4.9GW between Germany and Austria unilaterally and without any co-ordination with the affected TSOs in central and eastern Europe "questions the whole co-ordination process and, contrary to statements of both regulatory authorities, will keep the current status quo with limited relief for neighbouring grids, especially the Czech and Polish transmission systems", the TSOs said. After over half a year of discussion, there is still no clarity on the expected co-ordination with central and eastern Europe, the TSOs said.

The TSOs point to a provision by European energy regulator Acer that capacity allocation on the Germany-Austria border should be co-ordinated with the relevant regulatory authorities and TSOs, which has not been respected and could be interpreted as constituting a sound case of EU law infringement, they said.

The Czech Republic and Poland have struggled to accommodate loop flows from northern Germany through their grids into Austria, which has prompted costly redispatching measures, although phase shifters are being installed in a move to alleviate the effect.