

Supporting the full integration of the Swiss power market in the European Internal electricity market



EFET assessment paper – 29 October 2015

INTRODUCTION

The scope of this EFET¹ position paper is to **support the full integration of the Swiss power market in the European Internal Electricity Market**, by providing a qualitative analysis and argumentation of the benefits in terms of increased efficiency and welfare surplus that both markets would mutually gain.

The following different scenarios were elaborated by EFET together with Swiss stakeholders: these represent possible arrangements between the European Commission and Switzerland, reflecting the current on-going status of the political negotiations. The assessment is carried forward against five main European cross-border market development areas where Switzerland is involved.

BACKGROUND: five main cross-border market aspects subject to qualitative assessment

1. Day-Ahead Market Coupling

The fully harmonised coupling of the day-ahead markets in the North-West European (NWE) area and Central Western European (CWE) area is an important milestone for the improvement of the functioning of day-ahead markets across borders, but also for the development of liquidity and cross-border hedging opportunities in forward timeframes at all borders. Such cooperation yield rapid improvements in coordinated cross-border capacity calculation, the allocation of capacity rights in forward timeframes at all borders, the development of efficient continuous cross-border intraday trading and the compatibility of national balancing arrangements.

2. Forward Capacity Allocation & Transmission Rights

The harmonisation of the allocation of transmission rights and the establishment of a joint auction office are important achievements which enable market participants to easily and efficiently access and use transmission rights as congestion price hedge instruments across many European

¹ EFET, The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. EFET currently represents more than 100 energy trading companies, active in over 27 European countries. For more information: www.efet.org

bidding zones. Harmonised allocation rules contribute to minimising operational expenses, operational risks and consequently to fostering competition across borders.

The availability of firm forward transmission rights as hedging instruments promotes competition in electricity supply across national and control area boundaries at the wholesale level. If a company is to supply customers across borders, it is vital to ensure it can hedge its (primarily) long-term positions. In the absence of appropriate opportunities to hedge the risk of exposure to the volatile spot prices and the price risk of congestion in the grid, new entry into a market will be discouraged, especially for market participants without (temporarily or not) sufficient physical hedges such as power plants.

Cross border forward transmission rights are important hedging instrument for integrated cross-zonal market. Availability of such hedging instruments enhances competition and liquidity in all bidding zones and the allocation of available capacity should always be maximized in the forward timeframe. At the same time, full firmness of transmission rights should be guaranteed as well as compensation at market-spread on all borders of a relevant bidding zone in all timeframes.

A failure to allocate cross border transmission rights according to harmonised rules thereby leads as a side effect to potential inefficiencies, operational constraints, and increased risks.

3. Intraday Coupling project (XBID)

The growing share of intermittent renewable generation increases the need for efficient and integrated intraday markets. Switzerland is currently well coupled with the French, German and Austrian markets both for Standard and Non Standard products and for transits (i.e. parallel implicit and explicit access). The efficient development of the Swiss continuous intraday market should not be discontinued. Such markets are indeed necessary for market players to re-assess and re-balance their positions close to real time. The integration of intraday markets, bridging the gap between day-ahead and balancing markets is also a prerequisite to efficient balancing market integration. Cross-border intraday markets and their liquidity still need to be established and developed in many Member States. This requires a favourable environment, so that companies can find the justification and interest for the development of their intraday activities and teams across Europe.

Continuous allocation of cross-border intraday capacity should be the ultimate target as it allows for the highest degree of market efficiency and flexibility, and provides clear benefits to develop and couple markets.

The single EU-wide intraday coupling via the XBID platform will be a key component for extending the European Internal Energy Market coupling in intraday as it will cover a larger area, with increased robustness by the end of 2017.

4. Cross-Border Balancing and Ancillary Services

The EU Target Model envisages a common cross-border balancing market, with full harmonisation of technical and organisational aspects, relying on a TSO-TSO model with a Common Merit Order

(CMO). However, EFET believes that in order to ensure full harmonisation of the Internal Electricity Market, a standardised market design requires further harmonisation by TSOs of products, procurement practices and time periods.

The cross-border exchange of balancing services is today at a starting phase with the development of regional projects and areas where balancing reserves and energy can be exchanged. This bottom-up, regional project-based approach, consistent with the Target Model roadmap key principles, is valuable and can help to shape a European-wide, harmonised and integrated balancing services market. ENTSO-E has launched several regional pilot projects for the development of cross-border balancing markets. One of those is the TERRE project (Trans-European Replacement Reserves Exchange), which is aimed to exchange replacement reserves between the Swiss, Italian, French, British, Spanish, Portuguese and Greek TSOs through a TSO-TSO model.

5. Cross-Border Capacity Mechanisms

EFET believes that prices should reflect the reality of supply and demand in a transparent manner. In this perspective governments, regulators and TSOs need to improve energy market arrangements to allow a free formation of prices so that the energy market provides the adequate signals. Better functioning markets could mitigate or remove the need for policy makers to consider capacity mechanisms.

Capacity Mechanisms should not be a substitute to well-functioning energy markets and should adhere to some key principles, such as avoiding distortion of energy prices and avoiding technology discrimination by taking into account the contribution of all generation and demand-response capacity providers, irrespective of technology and age, including across borders. On this last point, transmission capacity reservation by TSOs should not be allowed in any circumstance.

QUALITATIVE SCENARIO ANALYSIS

1) Scenario with full integration of the Swiss market in the Internal Electricity Market

EFET strongly supports a scenario in which bilateral negotiations between the EU Commission and the Swiss Government are completed as soon as possible. The integration of the Swiss power market into the Single market would then be pushed forward as a priority. By 2018, most of the EU-internal market projects would be implemented and Switzerland would be part of the Internal Energy Market, thus bringing mutual benefits in terms of welfare, market liquidity and overall efficiency of the system.

Implications

Participation of Switzerland or Swiss borders concerning:

1. **Day-Ahead Market Coupling:** flow based market coupling should be implemented at all Swiss borders as well as all other borders in Swiss vicinity. Operations would be optimised as day ahead transmission rights would be procured together with the electricity. The whole region would benefit from the price convergence by applying the flow based approach.
2. **Forward Capacity Allocation & Transmission Rights:** The forward transmission rights on the Swiss borders would be allocated based on European harmonised allocation rules and via a central European auction office. Provisions of the EU Forward Capacity Network Code in terms of full firmness and maximisation of available capacity would then be applied, with clear benefits for Switzerland and for its neighbours in terms of market efficiency and improved coordination in network management.
3. **Intraday Coupling:** Switzerland would enter into the XBID-project, with specific LIPs (Local Implementation Plans) to be defined, thus allowing to efficiently couple the Swiss intraday market and to bring liquidity to the European intraday market across borders. This would allow to balance power positions near to real time across bidding zones and to improve the efficiency of the regional Intraday market.
4. **Cross-border balancing and ancillary services:** Switzerland would become part of European regional Coordinated Balancing Areas and exchanges balancing energy and balancing reserves across borders. Specifically, among others, the operation of energy balancing with France, Italy and several further EU-countries based on the TERRE project would be established. The common market for Frequency Containment Reserves would also develop and subject to further cooperation with Swissgrid. Netting of imbalances would further develop to mutual assistance with the Swiss participation. Contracts for emergency assistance (MEAS, Redispatch, Trilateral / Pentalateral procedures) would remain in force. Switzerland would be able to contribute, through its flexible power production, to the reliable, affordable and environmentally sustainable European power supply.
5. **Cross border capacity mechanisms:** Switzerland would participate in the cross border capacity mechanism with France and other neighbouring countries - i.e. Italy. Swiss capacities would therefore contribute to ensuring security of supply in its neighbouring countries at a lowest cost.

2) Scenario with no integration of the Swiss market in the Internal Electricity Market

EFET would be highly disappointed in case the bilateral negotiations remain without final success. The integration of the Swiss market into the EU internal market would potentially be put on hold. Current market and grid cooperation would remain in place, but further improvements would likely be more difficult. The Swiss market would not be allowed neither to benefit from the wider European market nor to fully contribute increase the European system efficiency, therefore leading to a suboptimal situation.

The missed integration of the Swiss market in the Internal market could have multiple implications, thus representing a huge step back compared to the full potential of the Swiss and of the Internal market.

This would entail no participation of Switzerland or Swiss borders in the following areas:

1. Day-Ahead Market Coupling

Explicit day-ahead auction would stay in place at all Swiss borders. All other borders in Swiss vicinity would be implicitly coupled, most of them based on the flow-based approach.

Qualitative analysis

European or Swiss market participants acting across the Swiss borders would potentially:

- incur financial and operational risks for procuring in the day ahead transmission rights separately from the energy transaction and in a way diverging from the European harmonised allocation rules;
- continue to employ resources for explicit day ahead auctions for procuring transmission rights only at the Swiss borders and, in case, support alone the costs associated with an additional allocation platform;
- face more volatile Swiss energy prices

Those risks and expenses will most likely have an impact on the profitability of market participants and will increasingly represent a market entry barrier for the Swiss market, with some associated negative impacts in terms of competition and costs for Swiss final customers.

Furthermore, the risks and expenses might reduce the competitiveness of EU trading companies that use Switzerland as a sourcing country for electricity exports.

From a macroeconomic perspective, there will be a potential welfare loss for the whole region, especially considering the missing price convergence by not applying the flow-based approach. The inefficiencies in terms of additional expenses, stemming from sub-optimal capacity allocation and calculation methods, will also negatively impact the welfare within the region, leading to higher power prices for private and industrial customers.

2. Forward Capacity Allocation & Transmission Rights:

No further steps would likely be taken towards rule harmonisation for the Swiss borders.

The Joint Allocation Office (JAO) is intended to be the European single allocation office defined by the EU Forward Capacity Allocation Network Code (FCA NC): in this scenario, the provisions of the FCA NC will not apply to Switzerland. As a possible outcome, the allocation of transmission rights at the Swiss border would take place separately and would likely be based on specific rules which may be different from the European harmonised allocation rules. Truly Harmonised Capacity Allocation Rules would not be introduced and full firmness of transmission rights at all borders would not be guaranteed.

Qualitative analysis

Market participants from EU or Switzerland trading across the Swiss borders would potentially:

- incur additional costs for monitoring and using allocation rules at the Swiss zone borders which may be different from the rules applied on all other European bidding zone borders;
- face the risk of increasing operational mistakes, by maintaining the focus on specific rules valid for 2-3 borders in addition to the focus on the harmonised allocation rules valid for all other bidding zones borders;
- be prevented to optimally hedge their long-term positions, in case their cross-border capacity is curtailed and full firmness is not guaranteed.

Those factors will most likely have an impact on the profitability and potentially represent a market entry barrier or a market exit reason, negatively impacting competition and liquidity.

From a system perspective, there would be extra costs in case the allocation of transmission rights at the Swiss border takes place separately. Finally, those costs would be recovered downstream and charged to consumers.

3. Intraday Coupling

Switzerland would not join the operational phase of the XBID project. Current coupling with France and Germany will continue but with potential risk of not granting full access to the European liquidity.

Qualitative analysis

Market participants from EU and Switzerland acting across the Swiss borders will potentially:

- Incur additional operational risks and costs among others for transaction processing;
- Incur additional market risks and efficiency loss for explicit allocation of transmission rights;
- face a decrease of economic activity due to less market liquidity and a potential decrease in their ability to buy and sell in the market in order to value the flexibility of Swiss assets;
- Incur higher imbalance costs as market participants will not be able balance their positions as efficiently, also causing additional imbalance concerns to the whole system as a consequence, with related costs.

Switzerland is currently well coupled with the French, German and Austrian markets both for Standard and Non Standard products and for transits (i.e. parallel implicit and explicit access). This market design (EPEX Spot platform) has proven its efficiency and allowed to kick-start the efficient development of the Swiss continuous intraday market, of the significant (and still growing) liquidity of the Swiss market, and of cross border flows in intraday (market coupling in intraday).

This development should not be discontinued. Cross-border intraday markets are extremely relevant for balancing power positions near to real time across bidding zones. In today's European

electricity system with significant power infeed from renewable production units, this market is of high system relevance and contributes importantly to effective and affordable security of supply.

This scenario would represent a huge step back from the current market design, which is aligned with the EU Target Model. From a system perspective, this would imply welfare losses, given the non-efficient allocation of cross-zonal intraday capacity, and a reduction of the Swiss contribution to effective and affordable regional security of supply. Indeed, the flexible Swiss production portfolio could not contribute, in this scenario, to attenuate price peaks and accommodate RES production.

4. Cross-border Balancing and Ancillary Services

Swissgrid would be excluded from the TERRE project as well as from the other European Balancing Pilot Projects. Participation in the French *mécanisme d'ajustement* may be questioned. Switzerland would also likely face more difficulties to participate in cross-border AS markets – PRL DACH NL, MEAS etc.

Qualitative analysis

Market participants from Switzerland and its neighbouring countries will see fewer opportunities to offer their production where it is needed. The possibility for Switzerland to contribute, through its flexible power production, to the reliable, affordable and environmentally sustainable European power supply would be threatened as well as its access to balancing markets.

Excluding Switzerland from cross-zonal exchange of balancing reserves and balancing energy would likely increase the cost of procuring balancing services in Switzerland and decrease competition in the neighbouring countries. It would also be a major step back compared to the current situation where Switzerland is a key participant to several cross-border balancing projects.

5. Cross border Capacity Mechanisms

Swiss generation and demand-response capacities would neither be properly taken into account nor be able to participate in the capacity mechanisms in neighbouring countries, such as France, Italy or Germany (balancing reserves).

Qualitative analysis

Hindering the access of Swiss capacities to national Capacity Remuneration Mechanisms means preventing Switzerland to contribute with its flexible and low CO₂ resources to fulfil capacity adequacy needs, specifically in France and Italy.

This would likely be another source of inefficiency and costs both for the Swiss power market and for neighbouring markets. In this scenario, ensuring security of supply from a national or regional perspective would become more expensive.

CONCLUSIONS

A political agreement between the EU Commission and the Swiss Government reached as soon as possible and aimed at removing the obstacles for the full integration of the Swiss power market in the Internal Electricity market would be mutually beneficial for all markets.

Our gap analysis has identified the benefits in terms of welfare surplus and market efficiency that the full integration would bring to the whole Swiss system and to the European power market.

On the other hand, the assessment has highlighted many negative impacts and consequences in terms of welfare, market liquidity and efficiency losses that the Swiss and EU power markets would suffer in case the political negotiations remain without a final success. The failure to reach an agreement would be the worst case scenario and make Swissgrid and market participants' efforts in European cross-border market development areas pointless. This situation would hence represent a huge step back from the current situation.

We have highlighted the increasing financial and operational risks and the inefficient allocation of resources that companies in Switzerland and in EU are likely to suffer if the Swiss power market is left isolated and the Internal electricity market does not get to be truly realised. We have stressed how this scenario could easily lead to the loss of market liquidity and potentially create a market entry barrier or a market exit reason: this will impact competition and, ultimately, domestic and industrial customers who will have less choice among suppliers and face higher electricity prices.

From a macroeconomic perspective, sub-optimal transmission capacity allocation and calculation methods would create welfare loss for the region.

From the perspective of European market integration, the missed integration of the Swiss power market would mean less opportunities for the Swiss flexible assets to contribute to the security of supply and to the flexibility needed in neighbouring countries, such as France, Germany, Italy, etc. thus limiting the full potential of a truly integrated electricity market.

EFET therefore suggests the EU Commission and the Swiss Government to carefully consider the impacts mentioned above, together with the mutual benefits that would result from the full integration, and recommends to strive to reach a political agreement as soon as possible. This process should not be blocked by the existing political difficulties on other topics.

EFET also recommends responsible national regulatory authorities and TSOs to take immediate steps to bring the Swiss wholesale power market firmly within current NWE and CSE arrangements for Day-Ahead Market Coupling and other European cross-border projects, in parallel to (or independently from) the finalisation of the bilateral negotiations.