

Febeliec answer to the Elia consultation on the main expected evolutions for the tariff proposal for the period 2020-2023

Febeliec would like to thank Elia for this consultation on the main expected evolutions for the tariff proposal for the period 2020-2023. The Elia tariffs are a significant part of the total cost of electricity in Belgium for industrial consumers, together with the commodity cost and the levies and surcharges, and as such are very essential for the competitive position of the Belgian industrial consumers compared to their competitors, in the neighbouring countries, the European Union and the rest of the world in general. It is in this framework that Febeliec continues its endeavour for an efficient transmission system operator, in order to minimize as much as possible the impact of the grid tariffs on the total electricity bill of the (industrial) consumers.

Febeliec is pleased to see that Elia will this time introduce its tariff proposal on May 10th 2019, which should at the latest result in the publication of the new tariffs for the period 2020-2023 by November 10th 2019. This is an improvement compared to the previous tariff periods, where tariffs were often only made public at the end of the year, leaving not much time for grid users to adapt their behavior or make good estimates of costs in budgeting exercises. Nevertheless, Febeliec pleads to shift the tariff proposal introduction and decision-making process even earlier, comparable to the new practice for the gas transport grid, where tariffs will be known half a year before they will enter into force, giving sufficient time to grid users to adapt their internal processes.

Febeliec has following comments on this consultation by Elia (title by title):

2. General Framework:

- Febeliec would like to remark that it has observed in the recent past that Elia is shifting ever more from its mission to keep the system in balance as the residual balancing responsible party in the direction of system adequacy, which is in Belgium still the task of the government. Febeliec for example sees that Elia is ever more actively pushing for a capacity remuneration mechanism, as can be seen a.o. in the election memorandum of Elia, and while Febeliec can appreciate that Elia also briefly mentions an energy norm in this document, it can only observe that while none of both have as of yet been legally transposed, Elia is taking the CRM into account for the establishment of its tariff proposal while not all giving the same level of attention to the energy norm.
- Febeliec will not contest the observations on the performance of the nuclear production in Belgium in the recent period, but notices that Elia throughout the document makes assumptions that do not always seem coherent and consistent. For example, if Elia wants to take into account a lower availability of nuclear production in Belgium, it should take into account higher imports and thus (presumably) higher congestion revenues. The same applies for running hours of Belgian (gas) production plants, which should then reduce the cost for balancing reserves and activations as lower must run costs would have to be paid. Moreover, Febeliec clearly wants to state that any effects resulting of additional deratings of production parks in Belgium only based on exceptional circumstances should in no case lead to additional margins through incentive schemes if the performance of Elia is better than what has been taken into account in this tariff proposal. Such potential effects should be completely neutralized in the tariffs and tariff methodology, in order to avoid the creation of a bias from the side of Elia in the establishment of its tariff proposals.
- Febeliec would like to point out that the transmission costs, even though they represent only a minor share of the overall electricity cost for a large industrial consumer, and to the extent that commodity prices converge on a European scale, can have a significant impact on competitiveness and are therefore a major concern for industrial consumers. Febeliec wants to refer to the fact that in the neighbouring countries industrial consumers matching specific profiles (stable, predictable, anti-cyclical, large, ...) benefit from substantial reductions in their transmission tariffs, thus rewarding their contribution to grid stability and integrity, while this is not the case in Belgium, thus leading to a substantial competitive disadvantage, as can be seen in several studies conducted over the last few years.

3. **Evolution of costs, revenues, remunerations and volumes:** The tariff proposal covers the regulated activities of Elia, as only these activities should be remunerated and covered by the regulated grid tariffs. Febeliec nevertheless wants to refer to its previous comments on the perimeter of regulated versus non-regulated activities and the potential impact of the non-regulated activities on the regulated activities. It is important to

avoid cross-subsidization from the regulated to the non-regulated activities of Elia, while at the same time also ensuring that the Belgian grid users are not exposed to risks resulting from non-regulated activities, as a decision-making asymmetry currently exists in the Elia group structure.

- With respect to the **costs**:
 - Febeliec takes note of the assumption of Elia and is pleased to see that Elia will start focusing on becoming more “**consumer centric**”. Nevertheless, with respect to the “digital revolution”, Febeliec wants to refer to its comment below on Elia’s future IT developments.
 - Febeliec also wants to refer to the comments it made on the **Elia Grid Development Plan** on 15/12/2018 (Annex 1 of this document). Febeliec takes note from the Elia comment that the **investment amounts** for the period 2020-2023 are relatively speaking lower than these in the current period, but an average of 370 MEUR per year is not negligible and all past (and future) CAPEX, by increasing the Regulated Asset Base and thus revenue of Elia, (will) lead to a fundamentally increasing higher OPEX and amortization/depreciation cost and thus a higher overall cost level of Elia. For Febeliec it is thus of the utmost importance that efficiency in investments is kept at the highest standards and that all (major) new investment projects should undergo a thorough cost-benefit analysis from a system perspective as well as allocation of costs to market actors, in order to put the cost to those that benefit from them.
 - With respect to the **influenceable costs**, Febeliec appreciates the work that has been done on the operational level by Elia to create a level-playing field and open up balancing markets to new sources of flexibility, which already has and should further structurally increase liquidity and competition and thus lower costs. Febeliec however does not agree with the proposed approach by Elia where a very exceptional situation in one winter is used as the new benchmark with respect to average balancing capacity reservation prices, which will then be applied for the entire period 2020-2023. While Febeliec can accept that the situation in winter 2018-2019 might have been challenging for Elia, both operationally and with respect to its incentive scheme, it is according to Febeliec a substantial overshoot to take such situation as the new reference scenario. In case this hypothesis would be maintained, Febeliec is of the strongest opinion that all effects of such approach on incentive schemes should be neutralized.
 - With respect to the **non-controllable costs**, Elia estimates that these will increase because of increased needs for energy volumes to keep the grid balanced. Febeliec does not understand this analysis, as the reservation of balancing capacity is an influenceable cost and all activation of balancing energy is charged to the BRPs (and even should lead to a benefit of Elia, as the imbalance generally generates a revenue for Elia). As a result, Febeliec does not understand the remark from Elia on the increased need of energy volumes and the increased costs for Elia. In any case, if such increase would exist, it should be charged to the BRPs and not through the access tariffs. On the comment of Elia to the impact of nuclear unavailability and potential cost increases for Elia, Febeliec refers to its aforementioned comment on this topic and remains of the opinion that an exceptional situation during one winter should not be extrapolated to the future. Moreover, for non-controllable costs, Elia would in any case not be penalized for this as it would at the very latest recuperate such costs in a next tariff period. As such, Febeliec considers this a non-sufficiently justified overshoot with an immediate cost increase effect for the Belgian grid users and as thus not acceptable.
 - With respect to the **costs for congestion management**, Febeliec takes note from the comment from Elia in the document but cannot make any comments as both the amount as well as the underlying argumentation are missing. Febeliec nevertheless insists in an efficient as possible approach to limit these costs for the Belgian grid users. The same applies to the **cost for MVAR and black start services**, as the designs are not yet finalized and most underlying assumptions and costs are lacking, Febeliec cannot make any real comments and can only insist that also for these services the costs for the Belgian grid users should be as limited as possible through a sensible and smart approach (e.g. related to tests).
 - On **digitalization**, Febeliec does not oppose Elia investing in IT in order to fulfill its legal obligations and core tasks. However, the question remains to which extent Elia should invest in the “*unlimited number of new opportunities*” while also some of the assets that are mentioned (smart meters, heat pumps, electrical vehicles, but also the Internet of Energy project) rather fall out of scope of a transmission system operator’s core tasks (while Elia at the same time does not seem to believe too much in the impact of these innovations as they

are hardly taken into account in its modelization of the future Belgian energy system). Febeliec asks a broader societal discussion on roles and responsibilities linked to new activities (flexibility services, metering & data, aggregation, ...) with all other relevant actors, such as distribution system operators, regulators, market actors, ATRIAS, ... Nevertheless, Febeliec is not opposed to a rationalization in order to get a more performant and efficient IT system, insofar this leads to benefits for the Belgian grid users. Last but not least, Febeliec wonders how the split will be done with the non-regulated activities, as the IT infrastructure is at least partially shared with a.o. 50Hertz.

- With respect to the **revenues**:
 - On the **congestion rents** Febeliec would like to refer to its remark on nuclear availability. If Elia considers the nuclear availability in Belgium to be lower than the average of the last years, the import and thus (probably) the congestion rent income should go up.
 - On the **regulatory accounts** and the accumulated surplus of approximately 400 MEUR over the period of 2016-2019, Febeliec can only observe that these amount to almost half of a full year regulated budget of Elia! Taking this into account, in combination with a reduced investment cycle during the period 2020-2023 as communicated by Elia, Febeliec is surprised to see that the Elia total cost will still increase with 2 to 4%! This implies that the over the current tariff period the structural and underlying cost increase for Elia for the new tariff period is more than substantial and that only the regulatory accounts can limit the impact, In combination with lower CAPEX expenditures! Moreover, this will after the tariff period 2020-2023 only increase when taking into account the massive investment program Elia has described in its ten-year network development plans. Tariffs and tariff methodology should avoid that structurally massive surpluses are accumulated, to avoid that grid users' cash positions are impacted by having to pre-finance these before a restitution in a next tariff period.
- With respect to the **remuneration**:
 - Febeliec has no specific comments on the incentives proposed by Elia and CREG other than those already communicated during the consultation from the CREG on this topic. Febeliec re-iterates its standing position that in principle no incentives should be given for tasks that fall under the core tasks and legal obligations of Elia, but from a pragmatic point of view can understand that incentives can have a beneficial effect. Nevertheless, all incentives should be just and proportionate and the objectives should deliver clear value for the Belgian grid users.
- With respect to the **volumes**:
 - Febeliec is surprised to see that Elia develops its tariff proposal with an additional **unavailability of a nuclear unit** of 1GW, on top of the derating that was already applied before. For Febeliec, it is not clear why an exceptional situation is now taken as the new reference case. It is also unclear what the tariff impact is of this choice by Elia. In any case should all monetary effects of this unilateral approach by Elia on incentive schemes be neutralized.
 - With respect to the other aspects related to the **production park**, be it conventional, cogeneration or renewables, Febeliec wants to refer to its answer on the Elia consultation on the input data for the ten year adequacy and flexibility study and is surprised to see that several gas-fired power plants will close, despite the return of several units to the market and the prevision by Elia of a need for additional capacity in the near future, and that no new CHPs are taken into account.
 - With respect to **storage**, Febeliec takes note that Elia seems to have confirmation that massive subsidies will be given to a specific storage project and that the capacity of a so-called loss-making unit will even be extended. Febeliec however does not see any information on the impact of this extension on the overall system, e.g. on balancing costs etcetera.
 - With respect to **energy** volumes, Febeliec again wants to refer to its comments on the Elia consultation on the input data for the ten year adequacy and flexibility study as Elia again postulates an average annual increase of 0,59% of total Belgian electricity demand, whereas this has not been observed in the past (near or longer) and while Elia observes also an important decrease of its offtake of on average 3,1% (5 times larger), resulting amongst others from more local generation but also energy efficiency measures. Febeliec does not

understand why Elia takes for all its studies a macro-economic outlook that has proven not to be the best predictor with hindsight and still continues to apply these percentages without any real (additional) justification.

- On the **net injection volumes**, Febeliec does not at all understand the reasoning by Elia. Febeliec does not understand the very cryptic comment *“the capacities on the international interconnectors, in combination with advantageous market conditions for export, lead to a slight increase in net injection”*. Moreover, in case of additional nuclear unavailability (Elia hypothesis), it is unclear how Belgium would export and how net injection in Belgium would increase. Febeliec wonders whether all hypotheses and assumptions of Elia have harmoniously and consequently been applied throughout the tariff proposal. In any case, without any numeric data and more clarification, it is impossible to understand the impact and make founded comments.

4. General principles concerning the allocation of costs and tariffs:

- Febeliec takes note of the benchmarking Elia has conducted for the **injection tariff** for generation units in Belgium. Febeliec also observes that Elia has not conducted such exercise for consumers, in particular industrial consumers, as the results would have been very interesting. Febeliec also takes note that Elia wants to allocate 50% of the reservation costs of balancing capacity and black start to generation; Febeliec wonders why this allocation principle is not applied to all grid costs and tariffs, as it is clear that generation/injection benefits from the availability of a transmissions grid as much as load. Febeliec urges Elia to conduct a broad international benchmarking to have a clear view on the split of the total cost of the grid between offtake and injection and compare this with the percentage of the (tariff) income of transmission system operators from grid use related tariffs (thus excluding connection and balancing tariffs) that comes from either injection and offtake. This could then provide a good basis for the discussion on the allocation of costs to injection and offtake tariffs. On the benchmark itself, Febeliec wonders why Elia has chosen to apply a tariff of only 0,62 €/MWh, which is substantially lower than the current tariff of 0,96€/MWh. With respect to the benchmarking study, Febeliec can to a certain extent understand why the preliminary comparison is conducted based on a theoretical CCGT, in order to have a stable comparison base between member states. However, all next steps in the selection by Elia resulting in an injection tariff of 0,62€/MWh seem quite arbitrary. First, the selection of the weighing factor, which is based on the installed capacity of CCGTs in all member states. Febeliec does not understand why the installed capacity of one specific technology in each of the member states should be the relevant factor to determine which weighing factor should be applied for a general injection tariff applicable to all production technologies. In case there would be a potential competitive advantage or disadvantage for CCGTs (or other production technologies) in Belgium as compared to other member states, this would be determined by the costs and conditions for a single CCGT (or other production technologies) in each of the member states, without the total installed capacity of any production technology being of any relevance for this comparison. Febeliec has also not found any justification for the selection of this parameter in the Elia consultation nor the benchmarking study itself. Second, when taking a look at the further assumptions in the benchmarking exercise (each time based on the application of the very questionable weighing factor discussed above), Febeliec can only observe that Elia has opted to select the value of 0,62€/MWh as the injection tariff to be applied in Belgium for the tariff period 2020-2023, whereas according to Febeliec this value is the result of a range of arbitrary parameter choices. The value of 0,62€/MWh is the outcome (including the application of the weighing factor) for the NWE region (excluding Belgium), whereas the same methodology for the CWE region (excluding Belgium) would lead to a value of 0,93€/MWh (which is very close to the injection tariff applied in the current tariff period). Moreover, the benchmarking study also clearly states that the level of the costs that producers in Belgium would pay would be almost 3 times lower than the global average (again weighted with the installed gas-based production capacity) of the countries for NWE (1,81€/MWh as compared to the 0,62€/MWh retained by Elia) and even almost 5 times lower than the average for the CWE region (€2,86€/MWh). The benchmarking report contains many more comparisons and analyses based on a wide selection of perimeters and parameters, but Febeliec can only observe that none of all the different perimeters leads to a value below 0,62€/MWh, implying that Elia has opted to retain the lowest possible value in the total range of the benchmarking analysis for the injection tariff in Belgium for the tariff period 2020-2023. Febeliec was not of the impression that the goal of the benchmarking analysis was to give a competitive advantage to Belgian producers, especially since the part of the grid costs not paid by producers will have to be borne by consumers, where several studies for many years show that for most industrial consumers there is currently already a significant competitive disadvantage, which will

only be exacerbated by unduly shifting ever more grid costs to consumers. Last but not least, Febeliec can also only observe that the benchmarking study states that specific factors bring nuance to the risk of (potential) competitive disadvantages because of the (Belgian) injection tariff and even renders this risk virtually null, such as the availability of interconnections and the significant differences in competitive position between national production mixes. Overall, Febeliec is thus not at all convinced by the determination of the level of the injection tariff for the tariff period 2020-2023 and estimates that Elia has put this level to low, even based on the benchmarking study, to the detriment of Belgian consumer tariffs.

- For the **connection tariffs**, Febeliec cannot comment on the tariff for the **study for substantial modernization**, as the new Federal Grid Code is not finalized yet, describing what a substantial modernization might be, and that the regulator(s) have not yet indicated how they would treat this topic. Especially for demand facilities, with the broader scope of DCC as compared to RfG, it is unclear for which cases such study should be done (Elia mentions *extensions, replacements, ...*, and a *large impact*, but it is unclear what this encompasses). As such, Febeliec wants to urge all involved actors to take a cautious approach when defining the scope, application domain and cost of such study. Moreover, the study would only result in a motivated advice, but the decision would still lie with a regulator. Elia also proposes to apply the cost of detailed study, with an uplift of 50%, which is quite steep and could, especially in the case of demand facilities as discussed in the aforementioned comment, have an important cost impact if the criterion is applied very broadly. Moreover, Febeliec also notes that Elia proposes a reduced tariff in case of “a minor modification” of the physical connection installation but does not understand why a minor modification should lead to a study for substantial modernization. Febeliec misses congruency in this comment.
- On the **tariffs for the use of partial first connection bays**, it seems to Febeliec that the sum of all the applicable coefficients leads to a factor higher than 100% or thus more than the cost of a full first connection bay. In case Elia applies an uplift in cost for such partial first connection bay, it should apply the correct percentage and transparently indicate how much the potential additional uplift is that it applies for such cases.
- On the **connection tariffs** and as already indicated during the CREG consultation on the tariff methodology, Febeliec is pleased to see that a distinction is made between onshore and offshore connections, in order to allow for a correct, transparent and cost reflective tariff for each of the types of connections.
- With respect to the modification of the maintenance policy for directly connected grid users and the repercussion on the **tariff for the management of the connection equipment**, Febeliec wants to remark that although it does not oppose a change in the management policy insofar this leads to more efficiency and lower (system) costs, the new policy based on asset state and not age will make it more difficult for grid users to forecast and thus budget impacts and costs. Febeliec thus urges Elia to communicate very transparently and proactively, for example through the Key Account Managers, on the potential impact for grid users as well as on any changes in maintenance calendars and thus cost elements for the grid users and this as soon as possible.
- On the shift of allocation of grid costs between the **tariff for month and year peak**, Febeliec does not oppose the proposed 15% respectively 35% instead of the current 20% respectively 30%. Febeliec asks Elia to retain the system for the determination of the underlying volumes unchanged, with the use of the 11th peak and for the year peak the winter working days (not public holidays) between 17.00 and 20.00.
- On the **tariff for the power put at disposal**, Febeliec has no comments on the proposed changes for the public distribution grid operators insofar that the allocation of cost elements between categories of grid users remains equivalent to the current practice.
- On the **tariffs for the compensation of imbalances**, Febeliec has no specific comments and takes note of the proposed changes to the alfa-factor and supports this insofar this helps to give BRPs sufficient incentives to maintain their individual balance. Febeliec only has one comment on the calculation of the alfa-factor, where Elia states that this takes into account the potential remuneration for green certificates; this should according to Febeliec refer to compensation for non-produced green certificates, as no certificates will be handed out as no energy has been produced in case of reduction of output.
- On the **tariff for additional offtake and injection of reactive energy**, Febeliec has already previously provided input in the framework of the Elia consultation with respect to the MVA study (powerpoint presentation in attachment, only in Dutch). Febeliec does not oppose the suggestion of Elia to apply

a similar scheme¹ for additional injection of additional reactive power as does exist for additional offtake of reactive power, insofar all selected parameters still allow the concerned industrial consumers with on-site injection installations to still operate their sites without any undue new technical obligations. For Febeliec it is clear that there is a trade-off between flexibility for grid users and grid stability, but it hopes that a pragmatic and balanced solution can be found. Nevertheless, and as also already indicated during the Belgian Grid meeting of 27/02/2019, Elia has built its reasoning on a structure based on access points, from the classic approximation of an access point with either a demand facility or a generator, but the proposed solution does not cover the situation of a demand site (CDS) with a local production, especially when the local production(s) is (are) owned by different entities. In such case, and as explained in the attached powerpoint presentation as well as during the Belgian Grid meeting of 27/02/2019, this could lead to contradictory signals and perverse effects, especially in case the CDSO does not know whether the generator(s) are reacting to requests from Elia, in which case the reactive energy will be compensated by Elia with respect to the tariff, or whether the generator(s) are under/overdelivering without such instructions in which case the CDSO should counteract in order to avoid tariff costs which might impact the total costs for parties that are not concerned. Febeliec asks Elia to take these elements into account when establishing its proposal for the MVAr service and remains available for further discussion on this topic. With respect to the **tariff for market integration**, Febeliec remains of the opinion that this tariff should be charged to the BRPs as these are the market actors that benefit directly from the market integration.

- On the **compensation of losses in the federal transmission grid**, and as already indicated during for example the consultation on the tariff methodology and the consultations and discussion on the new Federal Grid Code, Febeliec has no strong preference in any direction, but remains adamant that any modification of the current practice should not lead to double charging of the grid losses, through a new Elia tariff as well as still through the energy contract price. The estimated impact on the Elia tariffs of an increase of 5% to 10% for each infrastructure level is of such size that any potential double counting would not only be unjust but also unbearable for grid users. As already commented on many occasions, many (most) grid users have no distinct and transparent pass-through of this cost to the BRPs, but it is rather reflected implicit in the energy price through an uplift. In case the current practice should be modified, all existing energy contracts would have to be revised in order to ensure that no windfall profits would be given to suppliers/BRPs to the detriment of all concerned grid users. Febeliec also insists that international transit flows through Belgium, whether nominated or not, also pay their fair share for the losses they create on the Belgian grid.

5. Public service obligations, taxes and surcharges: Febeliec has no comments on the content of this chapter in this document but wants to reiterate its position that these should not be part of the energy bill. Policy choices should be covered by public funds in order to increase transparency and public scrutiny; in any case should the energy invoices not be used as a second tax system.

¹ The design of the future MVAr scheme has yet not been finalized. Febeliec can thus not comment on the final design of this scheme and this section should in no way be interpreted as a validation by Febeliec of any future to be developed scheme.

Annexe 1: Febeliec reaction (15/02/2019) to the Elia consultation on the federal transmission grid development plan 2020-2030

Febeliec appreciates the opportunity offered by Elia to react to the draft development plan 2020-2030.

Febeliec has always supported investments in electricity grids (transmission as well as distribution) to the extent that they facilitate market functioning and market integration and thus contribute to more competitive prices for electricity as a commodity. Febeliec observes that the focus of the draft Elia plan only partly concentrates on this aspect, but mainly aims at facilitating the (or an) energy transition towards full decarbonisation of the electricity system / energy system / society by 2050, in line with the UN Climate Convention in Paris in 2015. Febeliec clearly supports this long-term objective but would at the same time like to express its concerns about the financing of the grid developments needed to facilitate this transition in the electricity system. Today, this financing cost, based on the current tariff methodology and tariffs, is charged (directly and indirectly) exclusively to electricity grid users, which risks jeopardising the competitiveness of industrial electricity consumers in a European and, a fortiori, a global context. Febeliec therefore insists on the need to accompany the shifting focus of the goals of grid development by a discussion on the financing mechanisms of the electricity grids. To the extent that further electrification of society (load aspect) and the development of decentralised (intermittent) renewable generation facilities, often not close to demand locations, require additional grid investments, a broad debate on the financing mechanisms seems urgently needed. The proposed plan does not cover this aspect.

Furthermore, Elia seems to aim very clearly at a “specific” type of energy future for the next 10 to even 30 years, based essentially on a rapid deployment of existing technologies (intermittent renewables), with little or no flexibility for considering future technology developments. Often long permitting procedures are in this context used as an excuse to start early (up to 10 years in advance or even longer) with investments projects. Febeliec regrets no actions are proposed in the plan to make these procedures more flexible and more apt to react to technologic developments. On this aspect too, Febeliec proposes a broad societal debate on the need to introduce more flexibility in the permitting procedures in order to reconcile justified collective objectives with individual concerns, local objections and their financial impact.

The draft plan concentrates on the “hardware” aspects of the transmission grid, but Febeliec is also very concerned about the “software” aspects. Current capacity allocation and calculation methods, calculations of the “base case” scenarios and the use of flow-based allocation algorithm do not lead to an optimal use of the (interconnector) capacity for market functioning and integration, as very often priority is given to non-commercial flows (loopflows) to the detriment of grid availability for the CWE market coupling mechanism. Grid users therefore require clear guarantees that new investments in additional infrastructure will positively contribute to market functioning and integration rather than allowing even more loopflows to cannibalise (cross-border) capacity. Febeliec is definitively not interested in financing increases in TSOs’ RAB and revenue which do not lead to benefits for grid users!

Elia strongly focuses on further development of offshore wind parks in the North Sea. Febeliec would like to underline that this technology is not only very expensive (significantly more expensive than e.g. on-shore wind) and is likely to continue to require subsidies in the next decade, but also requires substantial additional support through grid investments and back-up capacity. Again, Elia strongly focuses on this specific technology with little or no flexibility to switch to alternatives if breakthroughs are realised in other technologies.

Concerning pillar 3 of the draft plan, Febeliec insists on the need for Elia to clearly indicate the impact of a switch to a higher voltage level for the concerned grid users (investment cost, impact of becoming a Significant Grid User, impact on energy efficiency, ...) and of the necessary measures to limit this impact on these different aspects.

The financial impact of all investments planned in the period 2020-2030 is estimated by Elia at 5 billion euros. Febeliec invites Elia to assess the impact of this huge amount on the financing conditions of Elia and on the future tariffs for grid users if the current tariff methodology is maintained. Furthermore, Febeliec invites Elia to provide an estimate of the impact of the operations of the new assets on the OPEX and thus -again- on transmission tariffs. Febeliec also invites Elia to provide a range of possible additional costs, as experience shows that original figures are often underestimated because of unexpected and/or additional expenditures.

Febeliec supports the recommendation of the CREG to provide sufficient details on the cost/benefit elements of each project, which should allow stakeholders to better assess their cost impact and societal benefit. Febeliec underlines the importance of timely SPAIC analyses (Standard Process for Assessing Impact of Changes) on the impact of all changes in assets and procedures for CWE market functioning and integration. For existing projects (e.g. NEMO, Alegro,...) Febeliec regrets this information is only made available in a very late stage.

MVAr-studie :

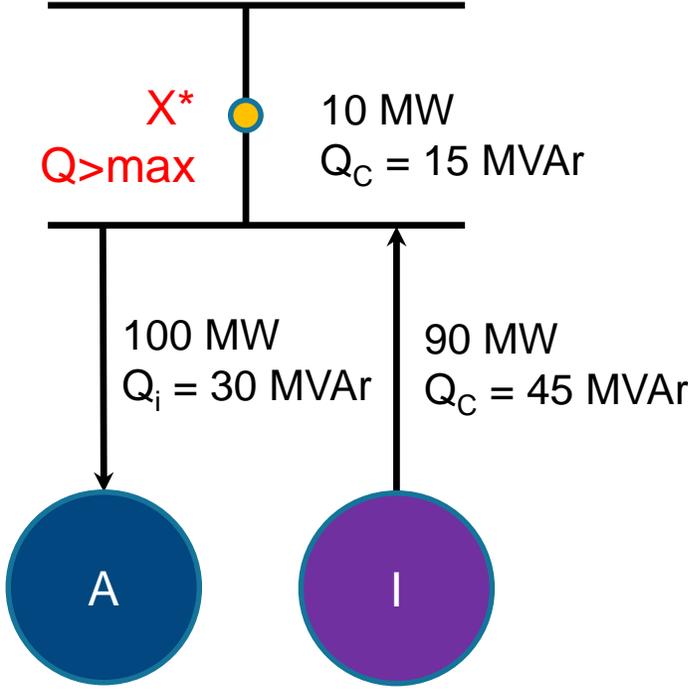
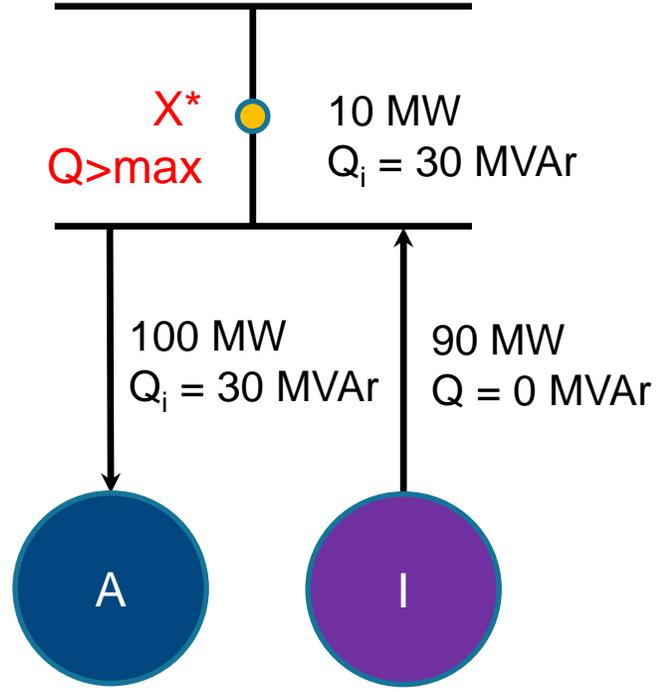
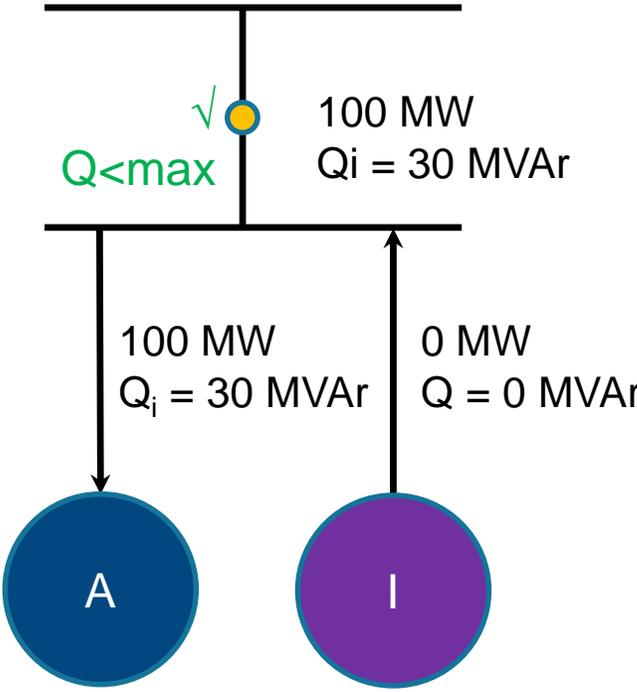
Te bestuderen punt : Toegangspunt van een CDS met afname en injectie

Actieve energie op Toegangspunt (bijna) in evenwicht

Frank Vanwysberghe

MVAr-studie : Toegangspunt met afname en injectie

Actieve energie op Toegangspunt (bijna) in evenwicht



X* = zie fig1, p17/61 van de studie : '10%pointe annuelle' : max = 10 MVar

● Toegangspunt A = Afname I = Injectie (e.g. Generator/Storage)

MVAr-studie : Toegangspunt van een CDS met afname en injectie

Actieve energie op Toegangspunt (bijna) in evenwicht

- ❑ Indien de lokale productie niet draait :
 - ❑ De afname van actieve energie is groot, de $tg_{\varphi}(\text{load}) < 0,33$ (voor de eenvoud wordt hier zowel inductief als capacitief met dezelfde tg_{φ} voorgesteld) : de afname wordt op zijn 'normale' waarde gecompenseerd
 - ❑ De tg_{φ} op het Toegangspunt is ok en blijft $< 0,33$
- ❑ Indien de lokale productie wel draait :
 - ❑ De afname van actieve energie is groot, de $tg_{\varphi}(\text{load}) < 0,33$ (voor de eenvoud wordt hier zowel inductief als capacitief met dezelfde tg_{φ} voorgesteld) : de afname wordt op zijn 'normale' waarde gecompenseerd
 - ❑ De injectie is van dezelfde grootte-orde als de afname : de actieve energie op het Toegangspunt wordt klein
 - ❑ Verplichting $\cos\varphi > \dots$ (zie figuur 1 in de studie)
 - ❑ Het Toegangspunt kan in een dergelijk geval enkel binnen de toelaatbare grenzen worden gehouden indien de eigenaar van de injectie wordt verplicht de nodige reactieve energie te leveren
 - ❑ Gezien de injectie op een CDS niet onder de controle van de CDS-beheerder valt, is het noodzakelijk deze verplichting aan de eigenaar van de injectie op te leggen vanuit het nieuwe MVAr-kader dat ter studie ligt. Anders kan dit leiden tot een dubbele kost voor de CDS-afnemers (de CDS-beheerder moet dus ofwel dubbel in compensatie investeren, ofwel duur aankopen bij de injectie) en wordt de eigenaar van de injectie in een ongewenste en ongeoorloofde positie (met bijhorende opbrengst) geplaatst, waardoor een reëel risico op misbruik ontstaat.



We create chemistry