

TF CRM #1 – Minutes

Friday 26 April 2019
09h30 – 17h00

Agenda

- Welcome
- Approval minutes of meeting 27.03.2019
- General Introduction (Elia - Patrik Buijs) [#1]
- Volume assessment methodology
 - *Principles X-axis Demand Curve*
 - Principles Derating factors (Elia – Daniel Huertas Hernando) [#2]
- Demand curve Y-axis principles
 - Methodology for defining net-CONE (Elia – Elmo Van Thielen) [#3]
- Investment Thresholds and Eligibility Criteria (CREG) [#4]
- Auction Design principles
 - Algorithm design (Elia – Glenn Plancke) [#5]
 - Principles underlying price caps (Elia – Elmo Van Thielen) [#6]
- Product Design principles
 - High-level principles (Elia – Elmo Van Thielen) [#7]
 - Strike & reference price principles (Elia – Nicolas Koelman) [#8]

Present

Name	Organisation/Company
Baugnet Christophe	ENGIE
Benquey Romain	Restore (only AM)
Bernard Pierre	Hartree Partners (only AM)
Bobula Adrian	Dils-Energie
Boucquey Pascal	CREG
Boury Jonas	Yuso
Bruninx Jolien	BASF
Buijs Patrik	ELIA
Ceusters Michel	Vynova
Claeys Bram	Ode
Deblocq Vincent	FEPEG
Debrigode Patricia	CREG
De Clercq Bernard	ELIA
Decrop Jehan	Edora
Degroote Quentin	Fluxys
Desimpel Lara	Eneco
De Waele Bart	CREG
Feito-Kiczak Rafaël	ELIA (only AM)
Ferlito Davide	Fluxys
Gerard Thibaut	ELIA
Gillet Amélie	FOD Economie
Gourlay Vincent	Total Direct Energie
Hachez Yvan	ENGIE
Harlem Steven	Luminus
Huertas Hernando Daniel	ELIA
Jong Dieter	Eiya
Jourdain Sigrid	FOD Economie

Koelman Nicolas	ELIA
Laleman Ruben	Kabinet Federale Minister Energie Marghem
Lebas Pierre	Lampiris
Matthys-Donnadieu James	ELIA
Meire Dirk	E-luminati
Meynckens Geert	Restore (only PM)
Mortier Jo	RWE
Nijs Klaas	Voka (only PM)
Plancke Glenn	ELIA
Schjelderup Ina	RWE
Selderslaghs Katrien	FOD Economie
Sleurs Kristof	ELIA (only AM)
Van Bossuyt Michaël	Febeliec
Van De Keer Lieven	T-Power
Van den Bosch Sven	Fluvius
Van Den Kerckhove Olivier	ENGIE (only PM)
Van Den Spiegel Frank	ENGIE
Van der Biest Piet	Siemens
Vandersyppe Hans	COGEN Vlaanderen
Van Dyck Sara	Bond Beter Leefmilieu
Van Thielen Elmo	ELIA
Verelst Martine	ELIA
Vermeiren Christian	T-Power
Verrydt Eric	BASF
Willemot Guy	EM Generation Brussels

Minutes

Welcome & Agenda

James Matthys-Donnadieu welcomes the audience and explains the goal of the meeting. During the workshop a lot of ideas will be presented, which needs to be digested by the stakeholders and it is not expected that the items will be checked off during the meeting. It is requested that stakeholders present their inputs and suggestions by the next workshops.

In comparison to the sent agenda, the principles of X-axis of the demand curve will not be presented during the meeting but are postponed to the next meeting.

Approval minutes of meeting 27.03.2019

Minutes of the Kick-off TF of 27 March 2019 are approved without any comments. The minutes will be published on Elia's website.

General Introduction (Elia - Patrik Buijs) [#1]

Patrik Buijs explains the overall timeline until the first auction in October 2021 and the different deliverables that need to be prepared during this year in order to submit the official state aid notification towards the European Commission early 2020.

Febeliec states as a general, overarching comment that the Clean Energy Package (CEP) describes rules on if/how/when CRM should be organized. Febeliec does not have problems discussing the principles of this Belgian CRM, but it should be kept in mind that the mechanism should be allowed under the CEP rules which sets the general framework.

Elia answers that this is recognised and it is also written in the law.

Volume assessment methodology - Principles Derating factors (Elia – Daniel Huertas Hernando) [#2]

Daniel explains the principles applied for determining the derating factors used in other countries and proposes a methodology to be applied for the Belgian CRM.

Febeliec asks whether derating of batteries depends on energy or technical characteristics. They want to understand why in the UK storage has such a high derating factor for low hours. Elia first clarifies that the derating factors shown for

the UK apply to batteries, but also to Pumped Hydro (and others). An increasing share of pumped hydro is taken into account in the table for periods higher than 4 hours. This is linked to the technical capabilities of pumped hydro able to contribute for longer periods (> 4 h). Average contribution is taken into account.

Febeliec asks why a good performing battery with half hour storage duration has a 17,5 % derating factor. It states that if you contract for 1 hour of storage and the duration is 1 hour, it should be 100%. Elia answers that the contribution depends on the adequacy (i.e. scarcity) issue you want to cover, as the derating factor reflects the average contribution over all considered (scarcity) hours. These scarcity moments may last for half an hour, but also for several hours. This is inherently linked to the system for which derating factors for different technologies are being calculated. Elia will simulate multiple scarcity events and the derating factors will depend on the average performance over all of them.

T-Power wonders why a derating (i.e. lower than 100%) is needed for storage with 12 hours duration. Elia answers that the reference is the average contribution in relation to scarcity. The assumption is that stakeholders will make an economic dispatch of their units and thus be available during scarcity situations. It is however important to also take into account that energy might not be available e.g. during long-lasting scarcity situations to “recharge” the storage device.

RWE wonders if a derating factor can be defined as the average contribution of a technology during scarcity hours. Elia answers confirmative.

Febeliec requests the definition of Demand Side Response in UK. Elia answers that in the UK case, it is a combination of ancillary services and market response.

Restore asks how derating factors should be interpreted. Elia replies that nominal capacity multiplied with derating factor results in contribution to adequacy.

Febeliec asks how implicit market response is taken into account. Elia answers that it will be inspired on values set in the context of the Strategic Reserve study on market response.

Dirk Meire wonders why wind is not mentioned. Elia answers that this is only the representation for the UK system and it appears that wind is not able to participate in the CRM. This may of course be different in Belgium.

FOD Economy asks how the difference between the derating factors for the T-1 and T-4 auctions in the UK can be explained. Elia replies that this is partly due to different delivery years which means that also the considered underlying system and the assumptions considered therein are different.

YUSO asks why the UK does not consider multiple categories for DSR as for storage. Elia replied that this has also been requested by the UK stakeholders and it is currently a point of discussion there.

Restore asks if in case of simultaneous scarcity, the contribution of cross-border is considered at zero. Elia answers the adequacy patch in the flow based market coupling algorithm determines what the contribution of imports will be, even in case of simultaneous scarcity. It is added that derating factors are averages over a considered period: on some hours there will be a contribution, on others there will be none. Hence, a derating factor at zero is very unlikely.

Dieter Jong states that there are also CRMs that do not apply de-ratings, so not sure if Belgium will/should apply this. Elia answers that, at least in the spirit of law, it is the intention to apply de-ratings. The definition states that data from different technologies should be taken into account and their respective contribution to SoS is to be accounted for.

Febeliec wonders if derating of capacity is considered or derating of the energy. Elia answers it is a derating of installed capacity.

Febeliec states on cross-border deratings that not only capacity should be considered and that Elia should make a clear distinction in any analysis on cross-border capacity versus energy as limiting factor, that the capacity constraints will evolve (e.g. 70% cross-border capacity defined by the CEP to be given to the market) and that we should be aligned with the assumptions made in other countries. Elia replies that Belgium is considered state of the art in simulating cross-border flows and that the constraints during scarcity are, following the Flow-Based principles, a combination of transfer capacity constraints and available surplus energy in every country. During scarcity events, the available energy in our neighbouring countries is often restricted, resulting in the contribution of imports being below the maximal attainable importing capacity. Elia stresses the importance to properly considering all types of scarcity (simultaneous and non-simultaneous) situations. Alignment with other countries is indeed important to appraise the most realistic level of the available energy in the neighbouring countries.

Restore mentions that derating of interconnectors is a very sensitive issue. Elia understands this as this defines how much we count on the import coming from other countries.

Febeliec asks whether only explicit DSR is considered (slide 16) since a CRM is not about reacting to a signal, but reacting to a market in a whole. Restore answers that explicit demand response is either considered in the demand curve or it has been prequalified and then it should be considered in the offer curve.

Dieter Jong asks whether we do not punish responsive units when we apply overall technology derating factors; taking the average values, which could result in a

higher need of capacity. Elia replies that derating factors determine the amount of MWs that are rewarded into a contract; actual performance will still be monitored. T-Power states that general de-ratings could be a punishment for participants that are performing above standard, so could there be a mechanism that rewards over performance? Elia replies that this is more a “product”-related topic, but rewarding overcapacity is not in the spirit of the law (lowest possible cost etc.)

Bond Beter Leefmilieu wonders if it is possible to sell “package deals” for capacity that are together worth more than the sum of their parts. Elia replies that aggregation is a more general separate issue, not only relevant for derating but also for evaluating investment levels and product characteristics. Aggregation rules will be established, but this is not presented today.

ODE asks to clarify the “insufficient historical data” on wind and PV. Elia replies that there is historical data available on PV/wind, but not enough to make the necessary statistically robust assessment. In addition, also offshore wind will have to be taken into account and this data is not yet sufficiently available. Therefore it is proposed to use a model to simulate the availability based on multiple climate years data since: i) climate data provides a larger and thus more statistically robust set of data than observed historical generation of wind and PV in past years; ii) Usage of climate data allows to forecast future RES production which is expected to be different from the currently observed in past years.

ODE asks if biomass units are modelled as thermal units. Elia confirms.

Febeliec asks whether derating only applies to prequalified volume. Elia replies that derating factors are to be interpreted more generally, for example: the offer curve should be composed of derated capacities. The derating determines the volume that can be offered to the auction compared to the installed capacity and thereby also sets the volume upon which obligations are evaluated.

Febeliec asks in relation to near scarcity hours, what are considered as high prices. Elia replies simulations have to continue to define the exact values but that this is at least a price above the marginal cost of all technologies.

Febeliec replies that they consider only hours with a price at the price cap (currently 3000 EUR/MWh) as actual scarcity hours. The values used in the demand response study for strategic reserve (150 and 500 €/MWh) are considered too low to reflect “real” scarcity situations that are relevant for adequacy calculations. Elia replies that we are talking about “near scarcity hours” not only the hours of scarcity in Belgium.

Febeliec states that scarcity should be defined in MW or MWh and that scarcity is not to be defined in price (€/MWh) as scarcity has to do with a lack of capacity to match supply and demand and not with price formation. Elia replies that during the next TF some dedicated slides will be foreseen to support the approach proposed by Elia [Action].

Restore stated that the approach for de-rating is good (taking examples from other countries is good, however UK is not a good example). They further state that the energy constraint as such for DSR and storage (both limited energy assets) should be the same (e.g.: 1h of delivery is 1 hour of delivery). Elia stated that they are looking into a model-based approach that will determine the de-rating of DSR and storage, taking into account energy constraints. However, the technological characteristics for DSR and storage are not fully equivalent (e.g. there are differences between DSR shifting, DSR shedding and storage), and as such the de-rating factors could be different.

T-Power wonders to which extent shifting is taken into account; the loading of e.g. batteries should be done on another moment. Elia states that the re-charging of storage is also considered in the model.

Restore gives some feedback from the French capacity market. In France every single capacity is derated, which leads to a lot of “disaggregation”.

Febeliec wonders how Elia is going to take the minimum 70% minRAM rule from the CEP into account in the volume assessment for the future. Elia makes reference to the 10 year adequacy & flexibility study Elia will publish before the summer.

Dieter Jong comments that Elia relies too much on models (DA market prices have no relation to scarcity, flow-based works in DA market without relation to actual flows on the grid in real-time) and he advises to focus much more on historical data instead of models.

Edora asks if they could receive the de-rating results of the French and Irish mechanism and if there are big numerical differences between the different countries. The data are publicly available, however the request is noted and a reply will be given by Elia.

T-Power asks what the definition is of Forced Outages. Elia responds that unplanned outages are considered.

T-Power also states that taking historical data for near scarcity is not a good idea.

Bond Beter Leefmilieu asks a question about input/output on slide 17. Elia answers that all year-round forced outages are taken into account for the consideration of de-ratings for thermal and individually modelled units, not just only during near scarcity hours. This is to have a statistically relevant dataset because forced outages happen regardless of scarcity occurring. This is different than e.g. an energy constraint where the adequacy moment is relevant for the de-rating. That’s why a stepwise input/output approach is proposed.

Daniel explains that the goal is to finalise all methodology principles before summer. All stakeholders are requested to provide comments but also counterproposals are very much welcomed. These can be discussed during next TF in May.

The question was raised when the first numbers could be available. Elia answers, assuming the question relates to the numbers of near scarcity hours, that these could be provided in one of the next TF.

Demand curve Y-axis principles - Methodology for defining net-CONE (Elia – Elmo Van Thielen) [#3]

Febeliec asks whether Ireland has a CONE per technology. Elia replies that they start from a list of technologies, pick the two most relevant ones (in the Irish case OCGT and CCGT) and calculate net-CONE for those.

Febeliec asks which technology is considered. Elia answers that the “Best new entrant” is considered.

T-Power asks whether the auction price cap should be 1.x or if it can also be 3 or 5 times the net-CONE, because of changing market conditions. Elia presents it as 1,x because of experience in other countries, but no concrete proposal yet for Belgium.

Febeliec asks if there is not a danger for windfall profits if the net-CONE and the price cap are too high. Elia answers that in any case the combination of demand and supply curves determine eventual outcome. It is also stated that no technology will be chosen with an unreasonable amount of missing money. The concept of “best new entrant” should safeguard against the raised concern.

Dieter Jong wonders why production cost is used to set the prices, and why demand is not considered for net-CONE. Elia replies that a demand response unit is not excluded from the list of CRM-eligible technologies at the start of the process, but the subsequent steps will determine the choice in reference technology.

Edora asks why demand curve is not based on willingness to pay. Elia replies that the willingness to pay and the willingness to accept for not being adequate should be equal in equilibrium. The estimated willingness to pay is the easiest to calibrate. Point B is estimated as willingness to pay, but strictly speaking could as well being interpreted as willingness to accept following the relationship $LOLE \times VOLL = \text{net-CONE}$. However, it is and remains an administratively set demand curve. This is the most acceptable way to model a CRM and the same principles are used in other countries.

T-Power wonders if net-CONE is not giving advantage to short term, since higher uncertainty on long term. Elia answers that the model uses one time horizon which

all auction participants are subject to, so there is no advantage between them. The uncertainty should be reflected in the price cap.

T-Power states that net-CONE requires the producer to make an assessment on the revenues a unit will make in a market where a CRM is implemented. This assessment is not easy. Elia answers that the price cap should be based upon a reasonable margin allowing to cover for such uncertainty

Febeliec states that 50% (so price cap = $1,5 * \text{net-CONE}$) is not a reasonable cap as any value above 1 will inherently induce a clear case of windfall profits and thus not respect the least cost for CRM criterion and certainly not the least system cost. Elia answers that the x in the price cap formula is not yet defined and that a study will be needed.

Restore states that price cap is a parameter and does not determine the price to be paid for capacity as this depends on the bids. Febeliec confirms but states that it still is important to make a good consideration on how much higher the price cap can be, because prices can potentially go high.

Restore states that discussion on net-CONE is not key, because it might not be impacting as the volume; it defines the curve. Elia answers that presentation on the principles for X-axis is foreseen for a next TF.

RWE asks if the net-CONE takes into account lowest or highest missing money. Elia answers it is based on the best new entrant, so the lowest missing money. RWE answers that the technology that will be used, will have a huge impact since all correlates.

Elmo explains that the next step it to launch a consultancy study. The consultant will be present in one of the next TF meetings to show the evolution and the results.

A market party states that market needs to know which methodologies will be used, exact numbers are not needed yet. Elia answers that before summer Elia will present the second layer of this story.

Dieter Jong stated that Ancillary Service revenues are negligible and that buying back or selling of energy between the different market horizons is more relevant. T-Power supported the statement of Ancillary Services. Elia replied that the methodology will determine a subset of reference technologies to be studied in detail and that the revenue models for each of these technologies needed to be considered (including ancillary services if it is considerable for that technology).

Investment Thresholds and Eligibility Criteria (CREG – Patricia Debrigode) [#4]

Febeliec asks to clarify “production of other consumer goods” on slide 21. CREG clarifies with the example of electric vehicles having mobility as a primary objective (not electricity) and should therefore not be considered as eligible. However if a DSR unit needs to invest in some equipment (e.g.: metering) in order to participate in the market, these costs are considered eligible. Only the part of the costs that is needed to make the flexibility available are eligible.

Febeliec asks if the “no mix generation/storage/DSR” means that aggregation cannot participate, e.g. battery to reduce demand for a certain initial period of time in combination with demand reduction (with a longer lead time) that takes over to comply with the product specifications (slide 23). CREG answers it could be difficult to assess CAPEX expenditures in a mix pool and that there might be other elements of the design that could make it difficult. This point has to be further investigated.

Febeliec asks clarification if the ex-post check only exists to verify that the presented investment cost was actually made (slide 26). CREG confirms.

Dieter Jong asks if the capacity remuneration is made on the whole capacity. CREG denies this, only threshold will take into account the CAPEX/installed capacity, not on the derated volumes.

Edora asks if there is already an idea on the level of threshold. CREG states not to have any specific numbers, but % of investment cost for net-CONE technology could be considered.

Edora asks how this applies to 1/3/8/15 year contracts. CREG replies that the 1 year contract is the rule and there will be no threshold. For the 15-Year contract it could be based on the best new entrant. For the other contract durations, it should be calibrated in order to put the investments on equal footing. A methodology should be developed; more information will be provided during next TF.

Febeliec stated that technologies are allowed to bid in for multi-year, but are not obliged to this. This leads to a risk of strategic bidding in new capacity for one year to secure a high clearing price for every year on existing capacity. Elia answers that this is to be assessed, since this is also a considerable risk for the supplier resorting to such a tactic. Also auction design is still to be presented and may alleviate the concern to a certain extent.

RWE asks for more clarifications on slides 20 and 22: which components, what about project development costs... CREG states that this level of detail will follow at a later stage.

RWE asks to clarify “increasing capacity”. CREG answers that it is the investment necessary to pre-qualify in the CRM for existing units, but not their regular returning

costs. RWE further comments that offering multi-year contracts also has a positive effect on bidding prices.

RWE questions how “not increasing the contribution to adequacy” should be understood (slide 22), in order to understand better which costs are being considered. CREG states that it considers only costs related to the goal of the CRM.

RWE asks to clarify the last sentence on slide 19. CREG answers that this means one year before the signature of the capacity contract.

VOKA and RWE ask to clarify “new MW’s”, e.g.: what about overhaul generating additional capacity. CREG explains that this is capacity which never delivered energy before; that was not in the system. Febeliec commented that you would then have to split lifetime extension from other investments. RWE states that the current phrasing allows for this interpretation.

A market party asks whether a new plant on an existing site is eligible. CREG states it’s eligible because it is new capacity.

EMGB wonders if the statement “new capacity (had never been able to deliver MW before)” on slide 20 means “never before the first auction”. CREG confirms.

T-Power wonders about the indication of Best New Entrant as a peaking unit. CREG assures that this is an example and that the study on net-CONE will indicate the reference technology.

Dirk Meire asks how the minimum threshold is expressed. CREG replies it will be in €/MW. Dirk Meire says this could justify high investment-low MW projects. CREG replies that this is one of the reasons they choose to work with nominal and not de-rated capacity.

Questions related to the topics presented by CREG may be sent to CREG.

Auction Design principles - Algorithm design (Elia – Glenn Plancke) [#5]

Febeliec states that even sealed bid has potential for market power abuse. Elia replies that it is still the best option to limit abuse (market power abuse has been more pronounced in descending clock) and that other elements in the mechanism will contribute to this as well. The choice for sealed bid at least offers better guarantees in limiting or not further aggravating any market power concerns, especially compared to descending clock.

Febeliec states that the “complexity” argument is not sufficient. Elia replies that the main argument relates to the market power mitigation and that complexity is an additional argument. Also, Elia answers that the complexity is mostly a concern for participants who could be tied up in the auction for weeks. Furthermore the law

defines a limited window to determine the auction results and Elia prefers to use this time as best as possible (where e.g.: losing 2 weeks on bidding rounds has limited use) and to ensure that the auction outcome can be duly verified, where needed also by an external party.

Dieter Jong suggests double sided auctions where capacity (e.g.: long-term contracts) could be bought back on the primary market. Elia states that this is not explicitly foreseen for the primary market, but it may be considered for the secondary market.

ENGIE wonders why so many European countries have opted for descending clock, while the analysis presented during the meeting argues that sealed bid would be better. Elia answers that UK has chosen for descending clock because there are a few players of equal size. The market in Ireland is more concentrated, so they have chosen sealed bid.

A market party mentions that the CEP foresees that the price should be able to go to zero. Elia answers that in both systems the price can go to zero.

RWE asks if the objective is lowest CRM cost or lowest system cost. Elia answers that the law states lowest CRM cost. RWE states that system cost could be lower because pay-as-bid might lead to suboptimal clearing. Elia replies not to follow this reasoning and is interested in receiving examples.

There was a discussion on the preferred mechanism for price determination in the CRM. Febeliec stated that infra-marginal rent in the CRM auction should be zero to avoid undue windfall profits as well as an additional investment signal in the investment signal that the CRM auction already is. Some producers (RWE,...) stated there should be some room for uncertainty of the market price and that pay-as-cleared is the norm for CRMs. COGEN Vlaanderen sees an advantage in Pay-as-Cleared for small units as it provides more transparency and would make it easier to engage in a collaboration with for instance an aggregator. Dieter Jong suggests limitations on existing capacity for bidding. The representative of the Cabinet of the minister of Energy says a lot of these arguments are also treated in price/bid caps.

Elia states that it is not a trivial topic and that the CREG in the end will have to approve the market rules.

ENGIE wonders if Elia thinks pay-as-bid is in line with the requirement of the CEP regarding price convergence as this is not like all other approved CRMs. Elia replies this depends on the assessment by DG COMP, but there is as of yet no indication that they would exclude pay-as-bid. DG COMP looks into country based specificities.

T-Power asks if the auction algorithm could be reviewed year-by-year. In principle this could be done, but Elia sees more advantages in having a consistent and durable

set of auction rules that don't differ significantly from year to year. Suggestions are welcome though.

Dieter Jong asks if we can avoid publishing the volume upfront. Elia answers this is not according to the law stating that the Minister should fix the demand curve well before the auction.

Auction Design principles - Principles underlying price caps (Elia – Elmo Van Thielen) [#6]

Febeliec asks if the same price cap would apply for 3/8/15 years. Elia answers there is always a global auction price cap.

Febeliec states that market parties can choose to apply for 3/8/15 years contract. Elia states that there is no direct link between CAPEX investment and missing-money levels. Therefore, it would not be fair to make a distinction in the 3/8/15 years group. While price caps may not be perfect to capture all infra-marginal rent, at least they have the potential to capture a relevant share.

ENGIE 1) wonders whether there is ultimately a real difference between bid and price cap and 2) reminds that a uniform price cap for existing capacity is not as innovative as claimed during the presentation (as Italy has a similar approach). Elia answers that 1) there is a difference between bid and price cap and 2) Italian principles are not the same, but there is indeed a price cap being applied.

Dieter Jong says that we should not take into account ancillary services in determining market participant's revenues. Elia replies that it is not known upfront, and also not relevant from a system perspective, where market participants assemble their revenues from, but it should be taken into account however. The CRM should cover for any residual missing money not covered by the 'entire' energy market, i.e. commodity and flexibility markets.

Febeliec states that green line of price cap is rather high (slide 3) and could induce windfall profits. Elia replies that the graph is only a conceptual example. It is stated that the line should be low enough, but also high enough to ensure fair return to market participants. Febeliec replies that they only need the red line, i.e. their bid. Elia states that this red line is not known upfront, we have to set height of green line without knowing this information.

T-Power states (in support of Dieter Jong) that ancillary services revenues should be excluded from analysis of market participants revenues from energy markets. These serve another purpose. Elia says that in that case this capacity should also not receive capacity payment, so this capacity volume should be excluded already upfront and not receive a capacity payment either. This may turn out difficult and not desirable since as of 2020, the ancillary services markets only will close just

before delivery (e.g. D-1), whereas the CRM closes already one or more years ahead (Y-1/Y-4).

RWE states that height of green line should be calibrated taking into account the payback obligation. For example, fiercer payback obligation means higher capacity payment needed due to less inframarginal rent in the energy market. Elia agrees on this principle.

Product Design principles - High-level principles (Elia – Elmo Van Thielen) [#7]

ENGIE asks about the load-following obligation. Elia explains that contracted volume is calibrated on peak-load, if at a certain point actual load is lower than peak load, payback obligation should also be proportional to the same extent otherwise distortive (delivery rather than availability) incentives could be given to the energy market.

Febeliec asks how this peak load will be determined, because there will be wind/PV/... Elia explains with an example: capacity request of 14000MW and strike price of 200 €/MWh. If the reference price goes above 200 €/MWh and load is only 12000MW, we will not request payback from all 14000MW.

ENGIE remarks that we should pay attention to the terminology: the term “load following obligation” is usually used in a Central Dispatch situation.

T-Power asks questions where you will find any volumes for secondary market. Elia replies that the topic of secondary market will be treated in one of the following TFs.

T-Power asks clarification on Availability Monitoring Trigger. Elia explains it is not an availability test, just monitoring on actual availability in the energy market(s).

Febeliec asks whether obligation of a pool of assets is the sum of all individual derated capacities. Elia answers this is still to be defined and it is also related to secondary market rules.

ENGIE asks what Ireland and Italy do in terms of availability monitoring. Elia replies that in Ireland, unit bidding in market is observed. This is difficult in Belgium, as we have a portfolio based bidding approach. Reliability options are considered as a windfall profit mitigation measure, in part because of the portfolio-based functioning of the energy market.

ENGIE asks if it is correct that only availability is monitored, no delivery obligation. Elia confirms.

Dieter Jong asks how to prove that you are not going to charge your car at 6pm. Elia explains the French principles as an example: market participants have to inform

upfront at which price you would react. When the price you state is very high (which means you won't be reacting to market signals often) the likelihood of being tested is higher.

Febeliec states that availability monitoring rules should be designed not only focusing on generation but also on storage and demand response. Elia agrees.

RWE asks if Elia already has an idea about penalty. Elia states that this topic will be treated at a future TF.

ENGIE asks what happens if payback obligation happens during outage. Elia answers there is no payback obligation, but these moments will count nevertheless towards availability monitoring.

ENGIE asks how ancillary services influence payback obligation. Elia answers that this will be dealt with later in the topic on strike & reference price.

Product Design principles - Strike & reference price principles (Elia – Nicolas Koelman) [#8]

Elia explains that a position paper from FEBEG was received on this topic. It will be published on Elia's website.

ENGIE wonders if strike and reference prices will be updated yearly and how this related to the contracts. Elia answers that the strike and reference prices will be updated yearly but that they do only apply to new contracts. The contract will define clear rules in order to have certainty for the participant but also for society as otherwise risk might be priced in the bid.

Dieter Jong states that the FEBEG position actually give hedged capacity an advantage: forward market price should be equal to expected average spot market price. Exemption would mean that we don't require them to pay back very high spot market prices (which do lead to higher forward price), while they can profit from their higher forward market price compared to low spot market price for all the other hours. Elia replies that this (so called "backward propagation") is a contested point (also in literature) and this proposed compromise would avoid taking a position on this via the trade-off with the level of the strike price.

Febeliec asks who will define the points on the strike price - payback exemption indifference curve. Elia answers that the methodology will be defined in a royal decree and that the points will be fixed afterwards in a ministerial decree. It is up to market parties to choose ex ante their flavour when making a bid. Elia adds that this proposal serves to avoid too much discussion on forward hedging and the question if backward propagation is working or not. Market participants have to make trade-off between % forward exemption and level of strike price. Elia believes this will

have a positive effect in bid prices while still avoiding too high windfall profits due to lower strike prices.

Dieter Jong asks if the % payback exemption and strike price curve points will be published. Elia replies that in any case the curve will be published, but it is unsure if the per unit choice will be published as well. Elia is however open to discuss any transparency aspect useful to facilitate general market functioning. This will be dealt with in the transparency topic in a later TF once there is more clarity on the overall mechanism.

Febeliec comments that the proposal of FEBEG is the equivalent of stating that X% of the market is functioning optimally, while always having argued that the market is not working correctly and hence a CRM was supposedly needed. Febeliec opposes the inherent cherry-picking that would result from the proposed approach. Elia comments that the market works very well to optimise the system (i.e. ensuring a least cost dispatch), but unfortunately not perfect related to adequacy. Elia further recommends that the TaskForce take their time to digest the proposal as it is quite innovative. The market parties are requested to provide feedback and come up with alternatives if they do not agree.

A discussion followed between the participants. T-Power comments that clean-spark-spread is the real driver for hedging and this could vary over time. Therefore they propose to stretch the reasoning in time. Dieter Jong predicts everybody will go for low strike price and high exemption; the forward markets will not be influenced and consequently society will pay twice. A market party comments that the CRM generates an additional risk in the forward market. Febeliec questions if you need forward hedging since your costs are already covered by the CRM. ENGIE comments that forward market is for risk hedging on operational costs, CRM is for investment stimulation. Elia concludes that it is an innovative proposal, but Elia would like the taskforce to take their time to consider it well and provide feedback.

RWE asks if there is a consensus on sealed bid/descending clock. Elia answers that the preference goes to sealed bid and you would have to indicate your forward exemption/strike price prior to the start of the auction.