Minutes of Meeting: Kick-off Task Force LRIO

Meeting

Date	May 15th, 2025
Duration	3 hours
Chairman	Maarten Konings
Secretary	Renaud Préat
Presenters	Maarten Konings, Jonathan Sprooten and Nicolas De Wael

Participants	Organisation
Canière Hugo	Belgium Offshore Platform
Bayart Pierre	BSTOR
Moens Virginie	BSTOR
Declerck Lucas	CREG
Gerkens Benoit	CREG
Herbreteau Sarah	CREG
Laleman Ruben (online)	Engie
Celis Chris (online)	FEBEG
NGUYEN Thuy-Hai	FOD Economie
Fontaine Valentin	Infrabel
Malbrancke Marc	Synergrid
De Backer Ken	VNR

1. Agenda

Section 1: Setting the scene and context
Section 2: Local redistribution of injections and offtakes
Section 3: Reference Context Creation
Section 4: Wrap-up and Next Steps

2. Report

This report will focus on the questions and remarks that have been asked by the audience during the presentation of the slide deck, that is available on the webpage dedicated to the workshop.

For the sake of clarity, the only slides that are mentioned in the present report are those for which questions have been asked.

Slide 6: “The new Task Force Local Redistribution of Injection & Offtake”

Stakeholder’s reactions
BSTOR, P. Bayart

Question: Will Elia also provide transparency on the target numbers/national potential for different technologies?

This taskforce focusses on the translation of the macro-level scenarios into a local reference context through local redistribution. As will be explained further on in the kick-off we will not focus on determining the values on national level. That work is being performed during the Taskforce Multi-Energy Scenarios or in the public consultation of the AdeqFlex study. It is advised to participate to the relevant Task Forces for any questions with relation to macro-scenario assumptions.

BSTOR, P. Bayart

Question: Will these methodologies be used for the different kind of studies (development plans, connections studies, AdeqFlex,…), don’t we need different assumptions per study?

This question is in scope of the meeting and will be explained later in the presentation, which shows the link between the assumptions and the studies, as it is applied today. We currently already apply a tailored approach for different kind of studies, but the methodologies for local redistribution remain shared across studies, when they are applicable.

Question: Will Elia provide clarity on the process for determining the local potential?

This will not be discussed today, but is in scope of the thematic “deep dive” workshops on generation, load & storage and will be addressed during those workshops.

Slide 18: “Local redistribution: if reservations and allocations are lower than the aggregated expected capacity, growth potentials are used to compensate for the difference.”

Stakeholder’s reactions

BOP, H. Carnière

Question: How are treated valid reserved/allocated capacities for which no action for project realization has been taken? As a general principle, based on current regulation Elia proposes in the development plans set of infrastructure projects suited for the connection of all reserved & allocated capacity. The issue of identifying these capacities and withdrawal thereof is out of scope of this taskforce and is being discussed in the context of the revision of the Code of Conduct. Of course, if such a mechanism is to be implemented, the “withdrawn reserved/allocated capacity”, will then be removed from the (local) reference context allowing to offer this capacity to other grid users.

If reservations and allocations are lower than the aggregated expected capacity (Editor’s note: Slide 19), all existing reservations/allocations are included in the reference context.

There is also a case in which the sum of allocated/reserved capacities is above the expected capacity from the scenarios, that will be discussed later (Editor’s note: Slide 20). Please note

that the macro-scenarios contain aggregate projected values for Belgium and that these are publicly consulted in the framework of the Adequacy and Flexibility study or the Federal Development Plan. These projected values are thus to be considered as generally agreed upon realistic values for Belgium as a whole, or at regional level if the values have been defined at this level.

If there are more capacity reservations/allocations, this means that there are more projects in the pipeline than "targeted" for Belgium. For the establishment of the reference context (e.g. used in the framework of the IoSN), a selection has thus to be made between the different capacity reservations/allocations as there are too many projects for the defined target. The criteria for this selection can be discussed in one of the upcoming workshops. A discussion on the aggregated macro-values for Belgium or at regional level is currently taking place in the Taskforce Multi-Energy scenarios, all feedback with relation to these values should be discussed there.

BOP, H. Carnière

Question: How are flex connection agreements considered in the study: only the guaranteed part or also the flex component?

For the purpose of grid development, the whole capacity (guaranteed+flex) is considered in the different studies. However, discussions in the context of the taskforce GUFlex are ongoing to allow Elia to propose, in the development plans, a set of infrastructure projects suited for the connection of all reserved & allocated capacity taking into account the use of congestion management means if the associated increase in operational cost is lower than the cost of avoided infrastructure project. However, this is currently not the case.

CREG, L. Declerck

Question: if the sum of (5a'+5b+5c) > (5a+5b+5c) in the framework LT studies 10-year horizon (thus the local potential > macro potential), this means that Elia takes a higher value for grid development than what is needed to achieve the macro-scenarios.

First-of all, the overarching process and its iterative nature needs to be taken into account. The development plans contain indeed the set of project and timing needed to meet macro-hypotheses defined national or regional level. However uncertainties also remains in the redistribution of these aggregated macro-values; it is impossible to exactly "predict" where exactly the grid users will request capacity. Therefore, when we performing local infrastructure development study, a local reference context is created, taking into account local potential developments. This allows to **define** the required infrastructure solution to host this capacity in case real projects materialize in this area. Furthermore, we like to repeat that the annual exercice of IoSN (Identification of System Needs) study is performed in order to assess if the needs really materialize and if projects need to be accelerated (if possible) or delayed, which is then taken into account in the "Dynamic Portfolio Management exercise". This allows (making abstraction of permitting and supply chain issues,…) to align the development of the grid as close as possible with the (materialization of) needs. A long-term study delivers input to the project portfolio, but for final infrastructure project investment decision (Go/No Go and timing), the materialization of the needs is needed. There is thus a clear difference between making the "design" to answer the needs, and the final decision for project realization. Through this final step, Elia makes sure that needs and grid investment are well balanced, matching macro-scenario, both in scope and timing, and that the grid is not oversized w.r.t. the actual needs and that the grid investment decision are robust to uncertainties in local redistributions.

For example, if we assume the grow of an industrial sector in Belgium, uncertainty remains on where it will be localized. If we have several candidate areas for this industrial sector (EDS, public authorities & associated agencies input, …), we will design infrastructure projects to allow each of the area to be developed, but it's for example only when the development will be close to materialization that the adequate infrastructure project will be given a higher priority.

Finally, it is important to acknowledge that infrastructure projects will rarely be designed to host exactly a specific value of MW of capacity at a specific time horizon. The time-evolving hosting capacity is a sum of many factors such as the discretized standard ratings of the available equipment (cables, lines, transformers, …) and the planning of each project within the portfolio. An exact "mapping" is thus never to be expected.

CREG, L. Declerck

Question: In order to be correct, when we create the local reference context in zone a, should we not diminish 5b and 5c so that the sum of (5a' + 5b_reduced+5c_reduced) = (5a+5b+5c)? Does it then still make sense to perform the overarching scenario exercise?

In theory this is an adjustment that could be done to ensure full alignment with the macro-scenario. However, in practice, such a modification requires a lot of effort for very limited impact. The final impact of such a modification is rather small compared to the overall volumes and decision are only made for zone a. Therefore, such a modification is not expected to impact the final result much. In case zone a is large (e.g. connection of large units, EHV infrastructure development, macro scenario targeted value is maintained.

CREG, L. Declerck

Question: what is exactly the size of a zone that is considered in long-term studies, is it linked to the zone of network influence of the connection methodology?

It depends on the context of the studies, the study of a 36kV grid covers for example a port area or a group of communes, but can cover a wider area if the long-term study only focuses on higher voltage levels.

B-STOR, P. Bayart

Question: When creating the local reference context, when downscaling 5b and 5c so that the total (1+4+5a'+5b_reduced+5c_reduced) remains the same, are all technologies considered equally?

Yes, all technologies are considered equally when downscaling 5b and 5c.

B-STOR, P. Bayart

Question: How are technologies considered which are not location bound and have a low footprint such as batteries and data centers? Should the "objective" here to create hosting capacity in some areas, instead of distributing the potential?

This is a very relevant question and fits exactly within the long-term objective of this taskforce. It might indeed be needed to develop alternative approaches to redistribute technologies which are not location-bound. However, today, this has not been needed as the sum of reserved and allocated capacities for batteries exceed the macro-level targets.. This is to be investigated further in future developments of this taskforce.

Slide 22: The studies that use local redistribution and re-evaluation of local growth potential happen at different periodicities.

Note from Elia

There is an error in one of the lines on the slides, which will be corrected in the final version.

B-STOR, P. Bayart

Question: If we look at the sequence, we understand the complexity of process. However, the more frequent are the update of the reference context and the faster an update the reference context can be integrated into the other steps in the process, the better it will be for the users. Is there an intention to increase the frequency of the updates?

We are indeed working to improve the sequence.

Slide 26: The Offtake Reference Context is built from existing offtakes, specific planned evolutions & redistributed aggregated macro targets.

Stakeholder's reactions

FEBEG, C. Celis

Question: For EVs and HPs, do you use the assumptions of the DSOs? If Elia and the DSOs design their network based on different assumptions, is there a risk that unused capacity will appear as the network won't be based on the same assumptions?

For the upcoming reference context which we will construct on the basis of the Adequacy and Flexibility Scenario. These values are not yet fully aligned with the DSO level. However, in the framework of the scenario building exercise for the Federal Development Plan, an alignment with the DSO's is ongoing. We also have ongoing discussions with DSOs to make sure our respective methodologies are aligned.

Slide 27: The Offtake Reference Context is built from existing offtakes, specific planned evolutions & redistributed aggregated macro targets.

Stakeholder's reactions

BSTOR, P. Bayart

Question: It is incorrect to assume that all batteries in Belgium have the exact same profile and behave exactly alike at the same time, and no batteries will operate solely on spot prices (batteries also participate to balancing markets, that are not considered in adequation studies). By applying this, the impact of batteries on the grid and possible congestions is thus overestimated.

This is an interesting remark. In the context of the methodology of connection studies this question was also identified and Elia committed on improving its methodology. So far, market dispatch is considered the best estimation for long term grid development. Elia will check internally if this shall be further discussed in the Taskforce "Multi-Energy Scenario's" or during the workshops "Local Repartition of Injection and Offtake". Please do not hesitate to bring forward concrete proposals or methodologies which Elia can use in its assessment.

Slide 30: Geographical redistribution is part of an interlinked methodology package for grid development.

Remarks Elia

It is important to understand from this slide that the development of the transmission system is an iterative process, in which the existing portfolio is continuously being evaluated and fine-tuned based on new scenarios and insights. This slide provides a general overview of the base case process and shows how the different processes and development plans are linked. Creation of the Reference context is a distinct time-consuming step and it thus makes sense to treat this in a separate taskforce.

Furthermore, with relation to the exercise for the Federal Development Plan, specific analysis might be required, depending on the final choice of scenarios, but it is too early to assess this.

Stakeholder's reactions

CREG, L. Declerck

Question: If I understand correctly, the Reference Context is made of the Reference Grid and the Reference Intakes and Offtakes. The Reference Context is therefore influenced by (the Reference Offtake and Injections), the Identification of System Needs and the Dynamic Portfolio Management. Does it imply that the Reference Contextis updated three times per year?

The Identification of System Needs doesn't change either the Reference Grid or Reference Injections & Offtakes, so indeed, the Reference Context is updated twice a year, when the Reference Grid & Reference Injections & Offtakes is updated However, currently these two updates are often integrated at the same time in the reference context which leads to an annual update. The ambition is to evolve to a situation with 2 updates each year. It is to be confirmed as of when this will be possible.

CREG, L. Declerck

Question: In other workshops, we heard about the "base vector", where does it fit in that picture?

The "base vector" or "vector" is the name we used historically internally for the "*Reference Injection & Offtakes*".

CREG, L. Declerck

Question: Which projects are included in the reference grid: in project in "execution", in "study", "planned", ….?

The recently published Code of Conduct mentions the step of "approval of grid reinforcement" in article 61quinquies for the consideration of projects in the context of connection studies. This shall be further analysed and translated in the methodologies.

CREG, L. Declerck

Question: Do long-term studies not consider an horizon to far away in the future to impact the reference context for client connection studies.

The horizon for infrastructure development studies (long term studies) depends also on the Identification of System Needs and as such is the "horizon" not necessarily a fixed value. Infra-

structure development studies can certainly have an impact already on a horizon starting 5-10 years from now, if a need manifests itself on that horizon, although infrastructure project realization on such a short term might indeed be constrained by other issues (supply chain, permits).