

Public consultation document for the design of the TERRE (Trans European Replacement Reserves Exchange)

RR Harmonized Balancing Area

Stakeholders Feedbacks and TSO assessments

Forword

The TERRE TSOs would like to thank all the European stakeholdes who have participated to the stakeholder meetings and answered to the consultation paper on the RR market harmonization. The provided input is very important for the success of the TERRE project and has been analysed by the TERRE TSOs with highest attention.

We hope with this assessment document to answer to the main concers of the market participants involved in the energy balancing and remain at your disposal in case of additional questions.

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Purpose of the document and general overview

This document has as purpose to communicate the main Stakeholders concers and TSOs positions on the 2nd TERRE consultation paper for RR market harmonization. The TERRE TSOs have assessed all the stakeholders' answers question by question, and merged the answers in order to provide a more structural overview of the main concerns identified.

In total 27 market participants, from 5 different energy markets and 9 different countries have provided their feedback on the consultation.



For each question, the TERRE TSOs have merged the stakeholders' remarks and structured them under "Stakeholders main concerns and arguments". For each of them, the TERRE TSOs have formulated a common position and clarification.

In case the questions, which have not, or partially been answered by the stakeholders, the answers have been identified as "No position" and therefore not been included in the assessment.

At the end of each question analysis, the common position of the TERRE TSOs has been formulated, given their general position which has been communicated to the NRAs for final validation.

Q 0/1.1: Please give us your general views on the TERRE project, and on this consultation document and do you have specific comments regarding Chapter 1 content?





Main Stakeholder feedback	TSOs position
Concern from stakeholders regarding local implementation	The TSOs have already engaged the local involvement of the stakeholders in the diffrent local implementation projects. The TSOs will reinforce this engagement.
Concerns around timing of consultation phase and it being last opportunity to provide feedback	The TSOs understand this concern. However, this also a constraint for the TSOs linked to the GL EB timelines requirement.
Lack of harmonization effort/timing	The TSOs gave a high importance to the different national specificities. In order to design a common market which on one hand complies with the GL EB requirement and on the other hand also integrates the balancing market party's constraints. The TSOs suggest a proposed timing which makes the transition toward an integrated balancing market efficient.
Argue TSO responsibility regarding market balancing	It's important to highlight that the balancing market is directly linked to the security of supply which is by law(s) under the responsibility of the TSOs and also required by the GL EB
Interference in the intraday market	The RR market avoids any overlap with the ID market. The design of the RR market doesn't interfere with the ID market
Possibility to include participation of non-RR TSOs	The TSOs agree with this proposal and are discussing with other TSOs not involved in TERRE on this topic
Project governance and interaction with other projects (XBID, MARI)	XBID is a project focused on the ID timeframe. TERRE integrates the ID market constraints into its design (as the CZIDGCT). However, the governance of each project is completely disconnected. TERRE and MARI cooperate together in order to ensure that both projects progress in a consistent way.

The TSOs agree with this proposal and will avoid any
delay due to any additional complexity
The TSOs will put the necessary efforts to achieve this
project within the agreed deadlines
Please refer to the TSOs assessment of Q 3.5
Please refer to the TSOs assessment of Q 2.13
Please refer to the TSOs assessment of Q 4.1 and Q 4.2
Please refer to the TSOs assessment of Q 2.6
The TSOs understand this concern. The aim of the 3
models suggested for harmonizing the financial
incentives of the BSPs and BRPs is to mitigate this
concern.
The TSOs agree and consider this concern to be treated
at a local level.

Q 2.1 Do you have specific comments on the LIBRA platform description?



Main Stakeholder feedback	TSOs position
Possibility to include participation of non- RR TSOs	The TSOs agree with this proposal and are discussing with other TSOs not involved in TERRE on this topic
Concern on the timing data will be published in order to meet the national regulations (on the local transparency platform)	Please refer to the TSOs assessment of Q 4.1 and Q 4.2
More verification requested on relationship of LIBRA platform and local market	The TSOs have already engaged with stakeholders at a local level in the respective local implementation projects. The TSOs will reinforce this engagement and a dedicated monitoring of the TERRE project at a local project level in development.
Benefit from more detail on how the other balancing process will use the outcome of TERRE market	The outcome of TERRE will be used by the next balancing process (mFRR). A cooperation is ongoing between MARI and TERRE aimed to cover all the topics which need to be considered by both projects.
Concern on how TERRE, XBID, MARI and local balancing arrangements will fit together	XBID is a project focused on the ID timeframe. TERRE integrates the ID market constraints into its design (as the CZIDGCT). However, the governance of each project is completely disconnected. TERRE and MARI cooperate together in order to ensure that both projects progress in a consistent way.
Concern related to XB exchange capacities and ATC	The ATC(s) are an input for the LIBRA platform. This information will be validated by the neighbouring TSOs which will set up a dedicated operational framework for this purpose (and also for other information)
Which criteria should be met for a product to be coherent with TERRE product and what is the process in case an offer is rejected by local TSO?	This concern is tackled under Q 2.6, Q4.1, Q 4.2 and Q 2.7.

Q 2.2 Do you agree with the allowance of counter-activations in TERRE and their im-pact on the marginal price and the ID market?



Main Stakeholder feedback	TSOs position
Provide to Stakeholders market opportunities	
Increase the efficiency of TERRE	
Highest social welfare	
Limited impact on the intraday market as long as	
the process takes place after the ID gate closure	
No distortion of the price signals	
The NRAs' suggested approach of separating	
acceptable and non-acceptable counter-	Supporting TSOs proposal
activations could make the understanding of the	
LIBRA algorithm difficult, increase the	
complexity and the clearing time	
The process by which the TSOs or the TERRE algorithm will determine "acceptable" and "non-	
acceptable" counter-activations is not clear	
	Offer activations and netting of needs takes place
	in a single CMO and the social welfare is
	maximized.
	This objective function has been agreed by
	Stakeholders in the first consultation and was
	supported by NRAs.
	Therefore, TERRE TSOs consider that the
	marginal price results from the clearing of offers
	and netting of needs. The price including counter-activation is thus Cross-Zonal RR
	Marginal Price (CZ MP).
	Stakeholders should keep in mind that even if we
	prevent counter-activations, this constraint will
	change the CZ MP, sometimes increasing or
	decreasing it – as presented in the consultation
Counter-activations will affect the balancing	paper -, which will impact consequently the
price and in this way the imbalance prices	Imbalance Price computation.

	It is important to point out that the future
	implementation of mFRR and aFRR processes will
	also impact the CZ MP results in each area.
	RR process is running after the ID market and the
	prequalification process and the balancing
TERRE would offer market participants a way to	market rules differentiate the bids for balancing
trade cross-border closer to real-time than the	from the bids for the ID market, as explained in
XB ID allows	the consultation paper.
Market participants will have to make mutually	
exclusive choice between participating to the	This concern is related to the BEGCT definition.
last sessions of the XBID or submitting offers to	The corresponding answers can be found under
TERRE	BEGCT topic.
	TSOs aim to design an efficient balancing market
	which will increase the opportunities for the
TSOs exceed the boundaries of the balancing	Market Parties. This is purpose key purpose of
energy procurement process that is the	the integration of European Balancing Market
objective of the TERRE platform	required by the GL EB.

The TSOs still consider that allowing counter-activation increases the overall social welfare and offers more opportunities to Market Parties, during the neutralization period of the European electricity markets. TERRE TSOs would like to point out that bloking counter activation changes the objective function of the algorithm; in this case, the main objective is not the maximization of social welfare but the minimization of activations. This change impacts the efficiency of the balancing market and would contradict feedback to the first consultation paper regarding the objective of the Activation Optimization Function.

However, the TSOs take into account the NRAs concerns reported in the common Opinion Paper and the results of this Consultation Paper. Please note that this proposal, which is also questioned by several Stakeholders, might not be technically feasible. More specifically, it may be challenging to combine the feedback of the Stakeholders regarding Unforeseeably Rejected Bids (Option 2) and a restriction of counter-activations; if we restrict counter activations, we expect an increase of the URBs and an impact on CZ MP. Therefore, a clear priority rule needs to be defined: either the restriction of counter-activations or the minimization of URBs will have priority in order for the Activation Optimization Function to decide which of the constraints will have to be respected and relaxed respectively. Therefore, in some cases, counter-activations will be allowed, if their restriction would result in a divisible URB, and in some other cases, they will be restricted. We would like to point out that this decreases the transparency of the process, and will influence the complutational times.

The TSOs delivered a first study on counter-activations with the first approval package based on the historical data of 2013. Since no further simulations with historical data were launched, mainly due to the complexity of gathering the data, the TSOs propose to monitor the frequency, the volume and the impact of counter-activations on CZ MP, URBs, computational time and social welfare during the parallel run phase and a predefined operational period of RR process. TSOs consider that the parallel run phase and this predefined period of the operational phase should provide additional guidance on the most beneficial approach and the NRA proposal could be implemented following this period of study.

If counter activations will negatively impact the liquidity of the integrated ID European market, the TSOs will reconsider their position and discuss this topic directly with European Stakeholders. The TSOs suggest to define the predefined operational period introduced above = 6 months. The TSOs are open to discuss this period duration and the methodology to monitor Counter Activation with the NRAs

Q 2.3 Which approach would you prefer to follow regarding unforeseeably rejected bids?

Stakeholders main concerns and arguments



Main Stakeholder concerns

For Option 1: the sake of same level playing field and higher welfare

For Option 2: incentivize divisibility

General comment: Many market participants have also asked for transparency by publishing the number and impact of URB (divisible and indivisible).

"...if this is the preferred solution, TERRE TSOs may consider following this approach, if this is proven to be feasible during the implementation phase. Note that if this solution is chosen, in practice TERRE TSOs would minimize and completely forbid the URB, as this may have a huge impact on the social welfare."

TSOs position:

With Option 2, the TERRE TSOs do not suggest to completely avoid but to minimize the unforeseen rejection of a divisible bid. The complete restriction of unforeseeably rejected divisible bids can lead to infeasible solutions. We will try to illustrate this using a simple example with a system of 2 TSOs depicted in Figure 3.



Figure 3: Example needs and ATC values

The offers of this example are presented in Table 1.

Table 1: Example offers				
Connecting TSO	Direction	Volume (MWh)	Price (€/MWh)	Туре
А	Upwards	60	10	Divisible
А	Upwards	50	20	Block
В	Upwards	50	30	Block
В	Upwards	50	40	Block

We assume that all needs are inelastic and inflexible. In this case, all offers apart from 10MWh out of 60MWh of the cheapest divisible offer will be accepted, even with Option 2, in order for the

solution to be feasible. The alternative would be to satisfy only 60MWh out of the 100MWh imbalance need of TSO A, but this is does not represent any realistic option, as it can create security problems to the TSO A.

TSOs position

As suggested by the majority of market participants, we would be keen to implement option 2 in the LIBRA algorithm. However, this option needs to be put in regards with the complexity of the implementation, the computation time of the algorithm and the impact on the objective value. If the number of divisible URB is low with the option 1, and with option 2 if the calculation time and the impact on social welfare are high, then option 1 should be kept. We propose to use those three criteria to compare more quantitatively option 1 and option 2 during parallel run or a predefined operational period of RR process.

Q 2.4 Do you agree with the way energy losses are treated in TERRE?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Cases where BSPs provide over plural borders need be elaborated	The current proposed solution already covers the case of multiple borders The TSOs will propose a methodology covering the cases where multiple interconnections exist between 2
Market participants think that the model should represent better the actual delivered volumes, in order to take into account BSPs unit constraints	TSOs The current proposal implicitly considers the unit constraints. For example, if on one side, due to energy losses we need 110MW activated upward offer and the unit selected without losses can go up until 100MW, then additional offer will be activated to cover the remaining 10MW.
Agree and it should remain consistent with allocation of XB capacity in DA and ID markets	The TSOs are in line with this requirement
Applying a fixed rate should be consulted further with BSPs.	As our proposal is in line with the previous market timeframes and because a more complex model is not relevant at this stage, the TSOs will stay with the "fixed rate" proposal.

TSOs position

It seems that this question doesn't raise special issues, as it uses an already approved methodology that market participants are familiar with in day ahead. The current methodology takes into account that real generation possibilities such as the losses. It seems however that for some special details, national workshop could help exchanges and better comprehension on the topic.

Therefore, TSOs maintain their proposal on this topic.

Q 2.5 Do you agree with the physical feasibility description and its calculation?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
The physical capability of the interconnector in relation to the cross-border flow should be taken into account in the TERRE optimisation algorithm	The aim of the TSOs is to set up an optmisation solution with fewest possible constraints. It was therefore decided to internalize the computation of the Physical Feasibility and to keep it under the responsibility of neighboring TSOs.
BSPs are exposed to the risk of the assumed delivery shape of a TERRE bid being different from physical reality, whereas interconnectors will be held whole	This comment seems to be based on a misunderstanding of the solution. There is no link between the shape of RR offer or a bid product submission. The Physical Feasibility will be implemented to make the DC link physical schedules and the activation of the RR offers firm.
Conditions and methodologies should be better specified	The TSOs will make the necessary effort to better specify the Physical Feasibility concept and conditions if needed.
The physical feasibility can only reduce the capacity due to security of the system, otherwise should be always the maximum value.	The Physical Feasibility is set up to ensure that the results of balancing market are firm. This is directly link to the network and system security management.
Require transparency and NRA approval	The TSOs will align the transparency on this topic with the NRAs

TSOs position

TSOs will use physical feasibility to deal with system security constraints on DC links. TSOs make the choice not to model it in the algorithm with the aim of decreasing the complexity of the algorithmic optimisation.

Q 2.6 Do you agree with the proposed interconnection controllability through TERRE?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Optimization of HVDC (or PST) settings, we note that those should already be optimized through DA and ID capacity calculations	Under CACM application, a dedicated framework for ID and DA Capacity Calculation will be set up. Then the use of PST settings will be considered under this framework. Using the balancing platform to help the reduction of cross border constraints will still be applied for the different borders (AC or DC) once the CACM GL has been applied. These topics are considered as independent.
Redispatching measures undertaken by TSOs to solve additional network constraints, the overall costs must be borne by the requesting TSOs	The I/C controllability is not considered as a Redispatching process, which is covered by the application of the CACM GL. This proposed additional functionality will support the operational security for the TSOs.
Remuneration of opportunity losses required	The TERRE TSOs do not contrebute to "opportunity losses" due to the unactivated offers because the I/C controlability is directly linked to the security of the network. This rule is simmilar to that which applies to the market splitting in the previous market timeframes.
Sufficient transparency required	The TSOs will align the transparency on this topic with the NRAs.

TSOs position

Following the different Stakeholders feedback and the importance of this topic for some TSOs, the TSOs maintain their position.

In addition, the transparency on the I/C controllability usage will be discussed with NRAs and the Stakeholders will be informed on the results.

The TSOs consider that any potential "missed activations" due to I/C controllability are linked to the security of network which is under the mandatory responsibility of the TSOs.

It's important to note that this concept could be used for DC or AC interconnections because it helps the management of security of system and as the GL EB allow the activation of Balancing products for other purposes than Balancing.

Q 2.7 Do you agree with the introduction of unavailable bids feature in the TERRE TSO-TSO process?



Main Stakeholder concerns	TSOs position
Sufficient transparency/methodology	The TSOs will align the transparency on this topic with
required	the NRAs.
	It's also treated under the application of GL EB art 12
	on Publication of Information.
Fair compensation of the loss of	The TERRE TSOs do not contribute to "opportunity
opportunity for the impacted BSP required	losses" due to the unactivated offers because the
	identification of Unavailable Bids is linked to the
	management of security of the system as reported in
	the CP chap 2.2.6
Should be done by separate mechanism	TSOs think that there may be a misunderstanding
	from the stakeholders.
	The definition of unavailable bids aims also to avoid
	creating congestions in case of offer activation.
	This identification is made before the submission of
	balancing offers to the LIBRA platform.
	Identification of unavailable bids is linked to the
	security of the system. The TSOs will not use this
Concern of the combined effect of elastic	principle for any economic purpose.
needs and unavailable bids.	There is no expected combined analysis of Imbalance
	Need definition (including elasticity) and identification of unavailable bids.
Possible impact on Imbalance Drising of	TSOs are responsible for operating the transmission network and this of course impacts the energy price
Possible impact on Imbalance Pricing of local TSO (impact on MP)	in its bidding zone(s). This is the case for the previous
	market timeframes (example: reduction of NTC) and
	also for balancing market (example: identification of
	unavailable bids).
Concerned that the process of excluding	The RR process doesn't aim to improve the networks,
bids may systematically disadvantage	and the proposal is consistent with how network
certain market participants	issues are managed today.
Counter activations can be distorted	There is no link between CA and Unavailable bids

Do not see the necessity of both the control	It is true that the reasons behind marking a bid as
effectuated during the ISP-TERRE products	"unavailable" and the conversion of bids are similar
conversion and the unavailable bid feature	(they are both relate to the security of the system),
introduction and ask for clarification on this	but the conversion of bids is foreseen by the EBGL for
issue	central dispatching systems because it refers to a
	specific way of managing the system and
	(consequently) the offers (Integrated scheduling
	process and bids), that differs from the self-dispatch
	systems. For CDS just defining some bids as
	unavailable could be insufficient for ensuring the
	security of the system.
	In any case, Terna will convert the ISP bids in order to
	submit to the central algorithm the maximum
	available (increasing and decreasing) volumes
	compliant with the network constraints

TSOs operate the transmission network and are responsible for security of supply. To ensure a secure system, some balancing offers cannot be activated (and should be identified as Unavailable bids) which is already the case today.

It's important to note that the TSOs will not use this principle to achieve any economic benefit and they will align the transparency on this topic with the NRAs and stakeholders by respecting the of GL EB art 12 on Publication of Information requirement.

Q 2.8 What is your view on the proposed method for TSO-TSO settlement (pay-as-cleared and block energy settlement between the TSOs)?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Require to work with the stakeholders be different prices for different qualities of service; slower and faster- acting services (mFRR).	TSOs acknowledge that different constraints of the product will be reflected in the bid price. This is the case today in the different local balancing markets. The mFRR process and settlement procedure will be tackled by the mFRR implementation project. The TSOs will tackle the settlement rules of the mFRR product in the dedicated project and make the necessary effort to ensure consistency between principles.
If a trapezoidal shape is to be assumed for TSO-BSP settlement then it is worth assessing why such a shape would not also be adopted for TSO- TSO settlement	The TSO-BSP settlement is based on the block of energy and is coherent with the TSO-TSO settlement.
Preference to include ramps up and down within settlement and link with the bid price to cover the imbalance	The settled energy, which is the energy exchanged between TSOs, is the energy corresponding to the "block". The Market Participants could anticipate the expected imbalance and consider it in their balancing bidding strategy.
Concerns about the ramping period of the trapezium but settling the block of TERRE	This concern is related to the incentivized shape delivery. It will be treated in the dedicated topic

TSOs position

The TSOs will maintain their position to apply Pay-as-Cleared methodology and energy block settlement between TSOs.

We consider that the Stakeholders share also these statements and as previously proposed, the TSOs state that:

- the same energy is settled under block and trapezoid;
- there is consistency between the TSO-TSO and TSO-BSP energy settled
- the trapezoid delivery is an incentive given by TSOs as explained in details in section 3.2

Q 2.9 What are your views on the proposed solution for price indeterminacies?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Price indeterminacies result from the presence of block bids in the market and should be resolved through incentives on the divisibility of bids, through the adoption of portfolio bidding in all areas and, to a limited extent, through the use of flexibility of	First, the price indeterminacy can occur without the existence of Block Bid (example: same volume of offered bid or need). Moreover, the purpose of the RR process, and common balancing market is not to harmonize the portfolio bidding and unit based strategies (please refer also to the assessment of the question Q 3.6).
TSO needs.	Finally, please note that the use of need flexibility proposal will contribute to the management of URBs and do not cause price indeterminacies.

TSOs position

TERRE TSOs maintain their position regarding the solution of the middle point in the event of price indeterminacies and aim at sharing the detailed pricing methodology with the market participants at the end of the implementation phase. The vast majority of Stakeholders agree with this solution, as this is consistent with the approach followed in other markets. We would also like to clarify that price indeterminacies do not arise solely due to block offers, but also due to other complex bid formats, elastic needs and counter activated offers.

Q 2.10 Do you agree with the definition of congestion rents?



Main Stakeholder concerns TSOs position Allocation mechanism and The TSOs will follow all the regulatory requirements for purpose should be publicly publication of information that are applicable both to TERRE available (transparency) project and to the congestion rent topic. As long as consistent with rules The definition of the congestion rent is consistent with the applied to other timeframes definition applied in other timeframes (e.g. DA). Congestion rents to be The use of the congestion rent is a regulatory issue, out of the scope of RR process. 714/2009 and future Clean Energy Package redistributed to the penalized **BSPs and BRPs** request the use of the congestion rent for different possibilities. Distribution should be set by The TSOs agree that the treatment of the congestion rent is a NRAs regulatory issue In relation to this concern, the TSOs are providing all the More information before information and references to documents available about this issue (including regulation references). providing comments The allocation of the congestion rent per border and its distribution is under the scope of the applicable regulation (ENTSO-E group of Congestion Income Distribution for the To clarify how it is distributed among the parties implementation of GL CACM).

TSOs position

Considering the Stakeholders reaction, the majority agree with the proposed congestion rent treatment and the proposal from the TSOs to be shared as it is done in other timeframes, the TSOs suggest to maintain their proposal.

Q2.11 Do you agree with the proposal for caps/floor prices harmonization?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Remove of Caps and Floors and only	
application of IT technical limits. The	
proposed backup solution should not be	
applied.	This is completely aligned with TSOs position.
If it's not removed, to be aligned with DA	The TSOs preference is to remove the caps and floors.
and ID markets. Also, a concern on the	However, this option can be considered as it complies
current cap of 3000 euro as to high.	with the GL EB requirements.
	The existence of other supporting measures (such as for
Removal of caps and floors only if other	renewables) is out of scope of the RR process, thus the
regulatory supporting measures are	TSOs cannot tackle or link the RR rules with these
eliminated.	possible supporting measures.
	This not a preferable option as the removal of caps and
Harmonization across TERRE countries.	floors is the proposed solution.
	The TSOs only could consider these local specificities as
Accept local specificities and apply	a temporary back up measure, as this does not follow
backup solution.	the GL EB. In any case, it is a regulatory issue.

TSOs position

As most of the stakeholders agree with the proposal of the TSOs, TSOs will continue to support the removal of Caps and Floors for the Balancing energy prices.

The TSOs acknowledge that this is mainly a regulatory decision; the TSOs are willing to collaborate with the NRAs in order to comply with the GL EB requirement for this topic.

Q 2.12 What is your point of view on the TSO-TSO XB commercial scheduling step?



Main Stakeholder concerns	TSOs position
From what exact date will the LIBRA algorithm be run more frequently than hourly?	As a starting point the TSOs will perform 1 clearing by hour. During the development phase of the project the TSOs will analyse the possible evolution of the number of clearing. The stakeholders will be informed about the results of this analysis.
In case of different XB scheduling steps, arbitrage should be made impossible	The TSOs will work in the aim of avoiding any distortion due to the XB Scheduling steps resolution
Do not understand which constraints prevent TSOs from rapidly introducing a shorter common scheduling step for TERRE	The definition the XB scheduling step is directly linked to the management of the network and operation of the system. Its evolution impact needs to be considered not only for balancing purpose.
More detailed explanation required on "the LIBRA algorithm will be run once each hour"	The TSOs will implement for the one clearing per hour at Go-Live. For example: at 10h15, LIBRA platform will optimise the period between 11h00 to 12h00. At 11:15, LIBRA platform will optimise the period between 12h00 to 13h00etc.
Not necessary to reduce XB scheduling steps as other systems available such as FRR	As a reminder, the XB Scheduling step between 2 TSOs is defined and agreed for all market timeframes (including Balancing). For the mFRR process, the XB scheduling step will be reduced to 15min.
Reduction of XB scheduling step not prior to harmonisation issues within project	The TSOs agree with this statement.

Scheduling Step should be aligned with the minimum ISP period in the TERRE region	The project will take this comment into account in our analysis regarding the harmonized XB scheduling step definition.
Should be harmonized across all borders	The TSOs will work in the aim of avoiding any distortion due to the XB Scheduling steps resolution.
Reduction of the XB scheduling step is to be done before go-live	The definition of XB scheduling step is directly linked to the management of the network and operation of the system. Its evolution impact needs to be considered not only for balancing purposes. However, the TSOs will consider these comments in their common analysis during the development phase.

The TSOs received different perspectives on the definition of the XB scheduling step which will be considered in the common analysis in the further development of the project.

However, it's important to state that the definition the XB scheduling step is directly linked to the management of the network and operation of the system and its evolution should be considered in a larger scope than RR market.

Q 2.13 Do you agree with the proposed definition of imbalance needs and their flexibility and elasticity?

BSPs have independent views on elasticity and flexibility, and we thus propose to analyze the answers separately for the two topics.



TSOs position
Having the opportunity to put a price on the need
helps the TSO to optimize the system on an
economical scale across time. Such opportunity is
implicitly given to TSO operators today when they
balance the system.
Additionally, as the RR process is sufficiently ahead of
real time, the uncertainty of the expected balancing
need is greater. The elasticity will mitigate this risk.





Main Stakeholder concerns for Flexibility	TSOs position
The Majority of Stakeholders agree with the TSOs flexibility proposal.	In line with TSOs
The Flexibility can help reducing the number of URB	
Some stakeholders disagree because should not be a mean to solve a block issues.	The flexibility aim is to make the common Balancing market efficient and not only to solve a block issue. Moreover, Flexibility doesn't favor the acceptance of Block bids
All market participants are wishing to have transparency on this value.	The TSOs will align the transparency on this topic with the NRAs

TSOs' position will be maintained regarding elasticity:

TSO will maintain their position on elasticity, as they don't think TSO would abuse of their position. TSO are not market players but responsible for balancing the system in an efficient way, which is why they are building European balancing platforms. In the LIBRA platform, cheaper bids from different parts of TERRE TSOs zones are activated which constitutes an optimization in space. However, this optimization can't be done in time, as it would mean taking uncertainties and complexities of each TSO balancing system into account through time, which is far too complex. Having the opportunity to put a price on the need helps the TSO to optimize the system on an economical scale across time. Such opportunity is implicitly given to TSO operators today when they balance the system. Thus, price is an explicit parameter of the balancing strategy as some implicit constraints of generation units become explicit ones with standard products. If this opportunity is not given to TSOs, they may only submit the inelastic part of the need corresponding to the certain imbalance, which means potentially a very low volume. The rest could only be satisfied locally, and opportunities of being activated for BSPs will decrease. The TSOs will coordinate the transparency level with the NRAs on the elasticity principle.

TSOs' position regarding flexibility will be maintained:

With regard to the market participants' position, TSO will use flexibility in order to decrease the number of UAB/URB, even if some market participants see it as a bad incentive for offering divisible bids. Regarding transparency, as flexibility is a parameter that doesn't mean to change and doesn't reflect balancing strategy but more a sort of tolerance.

The TSOs will coordinate the transparency level with the NRAs on the flexibility principle.

Q 2.14 What are your views on the proposed solution for the TSO-TSO process?



Main Stakeholder concerns	TSOs position
Market participants should be given sufficient time	Please refer to our assessment on Q 3.5
to update and submit offers after the XZ Intraday is	
closed and results are published without interfering	
in the intraday market transactions and nominations	
Saving time can be reached by calculating	The ATC computation for balancing is based on the
Imbalanced Needs or the Available Cross Border	results of the ID market which is received after XBID
Capacity before the BEGCT.	results.
Propose to have the pre-tendering and tendering	The TSOs will anticipate many tasks like the
phase run in parallel to the maximum extent	definition of the Imbalance Need ahead of the
possible.	BEGCT. However, other structural tasks need to be
	done between the BEGCT and TSO-TSO GCT (ex the
	network security analysis) and the TSOs which will
	require a sufficient time.
In some cases, the BSP can receive the activation	This is not the TSOs proposal. The activation orders
order after H-30, which is not consistent with a RR	will respect the RR FAT
FAT equal to 30 minutes.	
May endanger the efficiency on the ID market	The TSOs aim is not to decrease the efficiency if the
	ID market but to keep both ID market and RR
	markets liquid (and efficient).
	Please refer also to the Q 3.5
Preferable option 2 fall-back solution	This comment will be considered
A delivery period as "a one-hour long period" is not	The RR characteristics were defined in the CP. The
consistent with the product definition of a delivery	Delivery period could be 15, 30, 45 and 60min
period	
Fall back procedure: suggests ad-hoc consultation,	The TSOs will inform the stakeholders about the
simulation with real data and dedicated tests during	results of the // Run phase.
parallel and real run	

	Lot of cases will be considered within this testing phase. For example: the Fall Back options.
The common EBGCT should be set at least 5 minutes after the IDCZGCT	Please refer to our assessment on Q 3.5
The common EBGCT should be set at least 10 minutes after the IDCZGCT	Please refer to our assessment on Q 3.5
TSO-TSO GCT should be between H-60 and H-45	The TSO-TSO GCT is defined as H-45min. However, following the different stakeholder feedback, the TSOs are analysing the possibility of postponing this TSO-TSO GCT later than H-45min which is also linked to the technical solution under development
we would support the solution proposed and clarified during the workshop, whereby ATCs are kept constant and unchanged to help the closure of the Libra algorithm (this should be amended in the document)	The Fall-back solution is developed in order to face an unexpected failure of the optimisation. The aim of the Fall-back is to converge 100% of time which is the case only with ATC set to 0.
Will the TSOs have adequate time to identify UAB during tendering phase	The UAB and URB treatment will be done during the clearing phase and after the TSO-TSO GCT. Please refer to the Q 2.3
Will there be additional actions taken by TSO to deliver the reserve selected by LIBRA on its borders outside the 1 hour period?	The balancing energy which will be exchanged on the border is borned by 1h market time series

TSOs will take account of the concerns linked to the BEGCT and TSO-TSO GCT in their analysis (please refer to question 3.5 for BEGCT topic).

The duration of the TSO-TSO process (time between the BEGCT and TSO-TSO GCT) should be maintained. The anticipation of operational studies is already considered by the TSOs. However, the TSOs cannot avoid that each TSO will have to perform network security study and its balancing strategy during the of TSO-TSO process period.

Please note that the TSO-TSO GCT definition may also depend on the BEGCT proposal.

Q 2.15 Do you have any further comments on the information given in this section? (Please indicate sub-chapter reference when possible)



Main Stakeholder concerns	TSOs position
BSPs constrains and costs should be considered	The TSOs are considering in general the BSPs constraints. This is one of the aim of the Consultation Phase.
Concerning the Italian market design, we would suggest to consider the risk of generating low liquidity market zones, due to the reduced dimensions of the market zones in Italy	This concern will be considered by TERNA under the local implementation of the harmonised Balancing market
Daily fall-back run may provide very useful feedback and benefits of XZ exchanges	The TSOs will implement the proposed fall back solution
Financial compensation of "in-the money" bids required	Please refer to the Q 2.6
Further work is required to define the TERRE algorithm and the associated clearing rules. This work should be open and transparent and involve BSPs and BRPs.	The TSOs are transparent regarding the design of the algorithmic optimisation and associated computation of Marginal Price. It's important to remind that the NRAs will monitor the development phase of the centralised platform. During this period, the TSOs will organise a dedicated workshops (common or at a local level) to update the Stakeholders about the progress of the implementation.
If fall-back procedures are activated, should we expect TERRE results data to be changed in any way	Yes, the Fall back solution will not provide the same results as the main solution.

Request that there should be at least 5 minutes between ID GCT and Balancing Energy GCT	Please refer to the Q 3.5
The interaction with the current Italian dispatching services and balancing market are not well understood and the positioning of Italian TSO and NRA on the alignment of the current MSD to the European target model is not clear	This concern will be considered by TERNA under the local implementation of the harmonised Balancing market
To be acknowledge that there will be increased imbalance cost for RES as moving towards 15min ISPs.	Moving toward a harmonized ISP in Europe and its impact is not only depending on RR process but to all the balancing processes. As required by the GL EB, a dedicated framework will be set up to study the introduction of the 15min ISP and its impact on the BRP or BSP imbalances
To be clarified whether performing fall-back procedure at the same time of the clearing would lead to an additional delay before results communication in normal state.	The TSOs are aiming to avoid any delay on the computation of the results even if a fall-back procedure is required
TSOs should seek to bring the TERRE scheduling step to 15minutes, so that there are 48 daily cleared prices	please refer to Q 2.12

Q 3.1 Do you have any specific comments regarding the criteria used to characterize the current RR balancing product profiles and formats allowed by the LIBRA platform?



Main Stakeholder concerns	TSOs position
10min ramping cannot be provided by DR capacities	10min ramping period is required only for the incentivized shape while for the accepted shape, the ramping time could be between 0 and 30' minutes. Also as stated in Q 2.8, the Market Participants could anticipate the expected imbalance and consider it in their balancing bidding strategy.
Criterion "location" being a negligible priority of harmonization between TERRE TSOs, can only be correct if a fair compensation is provided to BSPs whose offers have been blocked by the TSOs, precisely due to their location, to solve or prevent, network constraints	At this stage, as also explained under Q 2.6, the TERRE TSOs do not believe that unactivated offers should be compensated. We consider also that this rule is similar to those which apply today for local unactivated offers.
Harmonization of RR product between countries needed: differences in the timing of the blocks (preparation, ramping period, delivery period, FAT and validity period) and block divisibility can lead to noteworthy differences in bid pricing	different ramping periods are allowed in order to increase the liquidity of RR market (the BSP is invited to consider the expected imbalance cost in the bids price)
Removal of barriers towards portfolio- based bidding	Removal of barriers for portfolio-unit based bidding is out of scope of the GLEB and is directly related to the structure of the network and system operator model. This concern is not covered by this CP.
The criteria used to characterize the product and the formats allowed by the platform should foster harmonization.	Starting from the current non-harmonized markets, we consider that this proposal is the best compromise between incentivizing a delivery of an agreed shape and increasing the liquidity of RR

The profile delivered from a TERRE product would appear to have the potential to deliver a saw tooth profile in the case of multiple products from individual units across different time periods. We are unclear how this will result in efficient energy exchange across borders.	market by allowing a larger profiles and different bids format. for the TSOs which will incentivize a delivery of 10min or an infinite ramping period, the net profiles of RR products activated in sequence will be a flat profile
To be clarified in which cases and for which parameters local products are not accepted in the TERRE market, both in the current and in the future definition of local products.	Global Profile H-S' H-S' The Accepted shape description is defined in the CP. We consider that all the other profiles are not RR standard balancing products
To be clarified with more details how local markets and TERRE market are run (in parallel, in series, relationship between TERRE common merit order and local products bids accepted only in local markets).	The local and TERRE market runs are strongly linked to the country specificities. The LIBRA platform offers many possibilities for local imbalances which could also be used at a local TSO level.
Unclear how XB exchanges are relates to individual instructions to BSPs and individual TSO	The physical schedules on the AC borders are based on ramping period of 10min. For the TSOs which will be crossed by the balancing energy flows needs to have consistency between thie 10min ramping duration and the RR balancing product ramping period provided by the BSPs

Following the different feedbacks from the stakeholders, the TSOs will maintain the proposed characteristics of the product.

- The large profiles of RR balancing products allowed by the "Accepted shape" characteristics and the different Bids format offer a high liquidity for RR market and process which increases the security of the supply in the "RR region". The "Accepted Shape" lists the requirements to establish if a "local product" is able to join the TERRE market (i. e. products with a FAT over 30 minutes or with a Minimum Delivery Period over one hour will be rejected).

However, in case of local specificity and any interaction with non RR standard product, it will be tackled at a national level

- The incentivized shape characteristics allow the TSOs, crossed by a larger volume of energy, to make the physical schedule of the exchange at the borders with a local activation coherent. In case

of incoherence between the incentivized shape and the physical schedule of the exchange (i. e. ramping period different from 10 minutes across the hours), there will be an increase of the deterministic frequency deviations that has to be compensated with an FRR activation. This activation would imply a reduction of the global security level of the system (less FRR available) and an increase of the overall costs.

Q 3.2 Do you have any specific comments regarding the criteria used to characterize the current BSP-TSO and BRP-TSO settlement procedures?



Main Stakeholder concerns	TSOs position
All proposed incentive models should exclusively focus on the delivery of the requested energy	The proposed models are seeking for the delivery of the requested energy.
All three models will create real time additional imbalances	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years. In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in case big distortions will arise.
Disagree with Trapezoid because: 1. asymmetry between delivery and imbalance price 2. not every plant can deliver ramps with FAT of 10'	A 10min ramping period is required only for the incentivized shape while for the accepted shape, the ramping time could be between 0 and 30'. TSOs are aware that not every power plant and technology can deliver a 10-minute ramp, as they cannot also deliver a 0-minute ramp. Also as stated in Q 2.8, the Market Participants could anticipate the expected imbalance and consider it in their balancing bidding strategy, i.e. include it in the bid price.
Double incentive is not consistent with those attached to model B or C. Therefore, such difference would result in discrimination between BSPs belonging to different models.	In models B and C, the BSPs and BRPs are closely related. Thus, the direct incentive to the BSPs that is provided in A will be provided indirectly through the BRPs in model B and C. Then there is no discrimination among the three models.

Fair playing field to be assured for all technologies	The 10min ramping period is required only for the incentivized shape while for the accepted shape, the ramping time could be between 0 and 30'. Different ramping periods are allowed in order to increase the liquidity of RR market and to avoid any discrimination between technologies.
Discrimination notable between Model A and B and C	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years. In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in case big distortions will arise.
Frequency of settlement in GB: Invoicing and settlement is, for most BRPs and for BSPs active in our GB Balancing Mechanism, done on a daily basis. Payments are made daily approximately a month in arrears. Only if the amount owing is small (currently less than £500 (British Pounds)) are invoicing and payments done less frequently.	This specific topic will be covered by national workshops in GB.
Harmonization relatively low considering that the incentivized delivery shape is not the same for all TSOs and the settlement schemes are not based on the same principles	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years. In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in case big distortions will arise.
Imbalance volume definition: in GB it is the difference between the metered volume and contracted volume for that BRP (i.e. the difference between the sum of metered volumes and the sum of commercial trade schedules for that BRP).	This specific topic is out of the scope of this consultation; however it can be dealt with on national exchanges.

Market distortion due to various rules of control of activations and penalties Need for a more precise vision of future local rules harmonization steps, in order to plan the needed arrangement for the next years	TERRE acknowledges different processes of control the requested activation. We do not agree with the market distortion argument. For more explanation, please refer to question Q3.1. TSOs agree to continue their collaboration with market parties in order to always give the best vision of the RR balancing market
Not agree with different treatments applied for ramping rates by different TSOs	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years. In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in case big distortions will arise.
Other regulatory arrangements may have impact on competition between BSPs in different areas	In this argument, we don't understand which regulatory arrangements you do refer to. TSOs, in this field, try to cover as many aspects as possible to prevent any market distortion or impact on competition.
Request a narrative gap analysis in order to highlight key points	Special explanations about harmonization key points are already treated by the stakeholder presentation and the consultation paper content
The criteria used to characterize the settlement procedures should foster harmonization.	We agree with this statement.
We do not agree with harmonizing only BSP-TSO settlement rules, leaving not harmonized BRP-TSO settlement rules to local implementation rules	Those harmonized BRP-TSO settlement rules are under a broader scope that has to be covered not only by the RR market but by the balancing market as a whole.

Justification for no distortion:

As presented in the consultation paper, the TSOs aim to implement harmonized principles for TSO-BSP settlement rules. While the incentives are the same, the exact procedure for applying the incentive can follow different schemes depending on the operational philosophy and the structural relationship of the BSP-BRP, among others.

The TSOs have presented a package of common rules and incentives for the TSO-BSP settlement (the TSO-BRP needs to be addressed at a wider scope than TERRE). The common rules are completely harmonized both in objective and in process. The common incentives have the same objective, however the process to achieve this objective is not necessarily the same, as this process is related to structural differences in the system and operational philosophy. About the possible structural differences and operational philosohies:

- Application of a trapeze versus block: This depends directly on the operational philosophy
 of the TSO and is responsibility of the TSO. For example, a TSO has a commitment to
 exchange balancing energy in TERRE, in the interconnection, by a trapeze shape. Some
 TSOs may want to receive exactly the same answer from the BSP, whereas other TSOs
 could manage the difference between the delivery from the BSP and its obligation in the
 border.
- Power profile versus energy schedules: This is directly related to the existing arrangements for BSP-BRP relationship (close/independent) and the way the fulfilment is monitored. In all cases, the objective is to give to the BSP (directly or indirectly) the signal to correctly fulfil the balancing service, in order to help to maintain the operational security of the system.

As the incentives proposed in the document are the same, the TSOs are convinced that making the process directly to the BSP, or indirectly through the BRP will not imply a market distortion. However, TSOs will monitor the market for potential distortions and will take measures, if such distortions should arise.

Consequences for no delivery:

The models A, B and C present a desired shape for the delivery of the product that (A and B trapeze, C block). The TSOs would like to better clarify the settlement consequences in case of a BSP does not follow the requested shape (please see below):

- In model A (desired power trapeze profile), the settlement mechanism (penalty) will go directly to the BSP. The TSO will monitor, in different timestamps, if the BSP is delivering the requested power according to the trapeze shape (also, some margins could be added around this shape). If the delivery of the BSP goes beyond this shape (+ margins), some settlement consequences (penalties) coule be applied. The basis for this settlement (penalty) will be the BEDP.
- In model B (trapeze monitored in energy), the settlement mechanism (penalty) will go to the BRP associated with the BSP. Based on the desired trapeze profile, the TSO will convert this into constant energy schedules in the corresponding periods. If, at the end of the period (ISP), the counter of the BRP is different to what was expected (i.e. there is an imbalance from the BRP), and imbalance price will be charged to the BRP due to the imbalance caused by not following the energy schedules that the BSP was instructed to deliver. Depending on the systems, additional penalties could be applied, apart from the imbalance price, when the BSP does not deliver the requested energy.
• In model C (block monitored in energy), the settlement mechanism (penalty) goes to the BRP, as in model B. The process is similar to B in the sense of translating the penalty to the BRP associated to the BSP. In this case, the requested energy schedule will be only in one period.

In a nutshell, the consequences of not fulfilling the requested shape will be the application of a price (BEDP or Imbalance price, depending on the model) to the BSP or to the BRP, and in the corresponding timestamp used by the TSO to monitor the fulfilment of the service. It is not possible to align model A with models B and C further, as the TSOs which will apply the model A monitor directly the BSPs, whereas the TSOs which will apply the models B and C can monitor only the BRPs, through the imbalance settlement. It will be challenging for TSOs monitoring the BRPs to proceed with a direct monitoring of BSPs as this will change fundamentally the local processes; a new monitoring philosophy and system needs to be established which will imply changes not only for the TSO systems, but also for the BSP systems. In addition, even within the same models, there will be differences, as different ISPs and metering rules are applied. As aforementioned, TSOs will monitor for any distortions and will keep working towards the harmonization of such rules. However, note that the RR market cannot harmonize these rules, but can provide the right signals regarding the necessity of further harmonization.

Regarding these specific questions, TSOs are intending to implement the three models:

There is no real preference from the stakeholders. Only two market participants expressed their preference (model A/C and model B/C) while the others only asked for more harmonization.
As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years.

- In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in the event that big distortions arise.

- It's important to note that some stakeholders agreed with the proposal and agree that it as a good starting point

Q 3.3 Do you see a possible competitive advantage arising from delivering either the trapeze or block offer?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Does not see a competitive advantage for trapezoid shape	The reason to incentivize a trapezoid shape is related to the intention to reduce the activation of aFRR due to an XB exchange of RR energy. The TSOs are not looking to gain any competitive advantage or disadvantage for BSPs assets.
Technologies not able to follow the required ramps are advantaged in case of block-offers with respect to the same technologies participating in markets where trapeze profiles are required.	The accepted shape has a ramping period between 0 and 30 min, so all assets with different ramping can offer to the RR market. We distinguish flexibility and fast ramping. TSOs are fostering efficiency over flexibility as it reduces the aFRR activation.
Implement a BEDP (Balancing Energy Deviation Price)	The topic related to the Imbalance Settlement Price is under a broader scope that has to be covered not only by the RR market but by the balancing market as a whole. A dedicated TSOs and Stakeholders framework of discussion will be setup for tackling the ISP topic (refer also to the Q 3.6)

TSOs position

The TSOs analysis of the Stakeholders feedback, the argumentation provided is not sufficient o conclude that there is a possible competitive advantage arising from delivering either the trapeze or block offer. Thus, the TSOs consider that both Block and Trapeze shapes can be applied in TSOs zones reflecting the best strategy to secure the system.

As a reminder:

- Some TSOs which intend to incentivize a trapeze are keen to prioritize the consistency between the physical schedule in the borders and the RR shape in order to reduce the aFRR activations. - For the TSOs which will incentivize the block, the harmonization of XB physical schedules with local RR shape is less critical.

Q 3.4 Do you agree with the description of the current local GCT situation for RR?

Stakeholders main concerns and arguments



Main Stakeholder concerns	TSOs position
Do not support the proposal setting BEGCT=IDCZGCT	Please refer to the Q 3.5
Further details should be given on the expected changes each TSO intend to perform in the national balancing markets	The TSO-TSO GCT will be harmonised for all TSOs. The implication of the BSPs at a local level will be handled by each TSO.
Market participants allowed to bid closer to real time are advantaged	With the harmonisation of the BEGCT, the Market Participants will have to submit their offers with the same time deadline
Specific request CH to abolish limits of free bids	This concern will be discussed at a local level in Switzerland

TSOs position

Same assessment as the BEGCT

Q 3.5 Do you have any specific comments regarding the definition of the BEGCT and the proposed timings, namely the proposal of the BEGCT to be H-60min?



TSOs position

The TSOs understand the Stakeholders position regarding the BEGCT definition. Knowing that the BEGCT definition has a major impact on the TSO balancing strategy/network security (TSO level) and following the Stakeholder feedbacks, the TSOs are currently re-evaluating their initial position in the aim of securing the RR process for all TERRE TSOs.

A dedicated framework of discussions and communication with the NRAs and Stakeholders on the RR BEGCT will be set up when these ongoing studies will end.

Q 3.6 Apart from the elements stated in Chapter 3, do you think other TSO-BSP and TSO-BRP elements should be harmonized? If yes which ones?



Stakeholder suggestions	Pool	TSOs position
The imbalance price regulation should be harmonized	Imbalance price regulation	This is under a broader scope, covered not only by the RR market but by the balancing market as a whole; a dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 52
a French hydro power plant shall not be penalized for providing a faster ramping period while capacities from countries are not penalized in the same situation	Flexibility incentives	This specific topic will be covered by national workshop. The TSOs state that there is a fair treatment towards all technologies.
Alignment towards power or energy based	Power vs. Energy harmonization	This must be considered in a larger scope than balancing in general. At this stage we can state that this alignement request is more linked to how the Transmission Systems are managed
Bidding formats (all bid formats should be available for all BSPs at the same time)	Bidding formats	it is the aim of the TSOs; However, this could be covered by national workshop as it also depends on the local readiness of TSOs and BSPs

Flagging unavialble bids by TSOs	Unavailable bids	TSOs will indentify the unavailable bids for security reasons which depend on the way the system is operated. The existance on unvailable bids are allowed by the GL EB This identification cannot be harmonised. However, the TSOs will be transparent when bids will be identified as unvailable.
Flexibility incentives	Flexibility incentives	It's important to state that the flexibility will be incentivised not only through settlement schemes, but also through allowing divisibility of offers by the optimisation, the treatment of URB, etc. Applying different settlement schemes for each country/TSO is also linked to the power/energy monitoring.
Harmonization of imbalance settlement will be required under the EB GL Article 52 within 3 years as part of a wider project. Inefficient to do it now under TERRE project as it can be undone	Imbalance price regulation	This is under a broader scope, covered not only by the RR market but by the balancing market as a whole; a dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 52. The coordination is underway between the different Balancing projects.
Harmonization of imbalance price scheme	Imbalance price regulation	This is under a broader scope, covered not only by the RR market but by the balancing market as a whole; a dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 53
Imbalance adjustment	Imbalance adjustment	Differentiation between models A and B are linked to the BSP/BRP relationship in each system. The Imbalance adjustment is related to the link between BSP and BRP. As explained in the consultation document, this topic will be covered at local level.
Imbalance prices and settlement period	Imbalance price regulation	The TSOs will comply with the EB GL requirement on the harmonization of the IS Price and the IS Period in the applicable deadlines.
Incentivized delivered shape	Flexibility incentives	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years.

		In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in case big distortions will arise.
Non-delivery penalties	Flexibility incentives	The TSOs explained that additional penalties may exist due to under or over-delivery (in example 2 of the 3.2.2.2 section of the CP). The TSOs will work on the best way to harmonize this feature in the future.
Not agree with treatment of ramps to deliver volume in the delivery period	Imbalance price regulation	Out of scope (related to local implementation). If the physical delivery of the BSP providing RR deviates from the XB exchange schedule, the RR exchange will result in a power imbalance within the area that this BSP is connected to. The additional imbalances have then to be solved by the connecting TSO by using mFRR or aFRR. For some TSOs it would be very difficult to remove the ramping period from the settlement calculation and they have decided to incentivize trapezoidal delivery shape. In any case the price of the bids submitted by a market player can reflect the risk of having a potential imbalance during the ramping periods.
Particular harmonization of penalties in case of not complying with the activated energy	Imbalance price regulation	As explained in the Consultation Paper, the TSOs aim to harmonize the incentives provided to the market parties as much as possible in order to guarantee an efficient functioning of the RR balancing markets and a level playing field in all the systems. However, the way these incentives are provided in the different systems may be conditioned by structural characteristics (with a wider scope than TERRE project) and thus may present some deviations that cannot be solved by TERRE project. In any case we will monitor and manage accordingly in the event that large distortions arise.
Possibility to do portfolio bidding should be harmonized	Bidding formats	Out of scope. The way a system is managed (central/self - unit/portfolio based) is mainly related to the structure of the grid and regulation aspects

Prequalification conditions must be further tackled	Prequalification	The TSOs understand this request. At this stage, the aim is to build a common RR market where the activation of RR standard balancing products is optimized. Reaching this goal doesn't need to tackle the harmonization of the prequalification processes as each TSO is responsible to comply with the SO GL for maintaining the frequency deviations. Also, this topic is not required by the GL EB.
Reference price at which imbalance is penalized	Imbalance price regulation	This is under a broader scope, covered not only by the RR market but also by the balancing market as a whole; a dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 52
Reference price such as imbalance price	Imbalance price regulation	This is under a broader scope, covered not only by the RR market but by the balancing market as a whole; dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 52
Relation between BSP and BRP.	Imbalance price regulation	As reported in the Consultation Paper, different models were introduced to cope with the different behaviors of each TSO. Indeed this aspect will not be harmonized within TERRE, as it is related to different but well established operational philosophies, and changes would be challenging and would require many years. In any case we know that several harmonization deviations may be based on these two different operational philosophies; thus we will monitor and manage promptly in the event that large distortions arise.
TSOs tools to manage their needs and the optimization algorithm (flexibility, elasticity, counter-activations, physical feasibility, controllability	Need Calculation	The TSOs stated that the definition of the Imbalance Need must be kept at a national level due to the responsibility of security of supply The TSOs reported on the principles of Imbalance Need definition. Also, the TSOs will align the transparency on this topic with the NRAs.

From our analysis, the stakeholders asked to go further and to develop more the harmonization of the Imbalance Price regulation (10) and the Flexibility incentives (5).

- For the Imbalance Price regulation harmonization, the TSOs understand the importance of this request. However, this is under a broader scope, covered not only by the RR market but by the balancing market as a whole. This is why a dedicated European framework will be established to tackle this topic in order to comply with GLEB art. 52.

- Regarding flexibility incentives, at this stage the TSOs aim to harmonize the incentives provided to the market parties as much as possible in order to guarantee an efficient functioning of the RR balancing markets and a level playing field in all the systems.

However, the way that these incentives are provided in the different systems may be conditioned by structural characteristics (with a wider scope than TERRE project) and thus may present some deviations that cannot be solved by only RR process project.

However, TSOs and NRAs will propose a set of criteria for monitoring and make potential market distortion transparent during the development phase and a given period after Go-live. Such proposal will help to manage related issues promptly in the event that large distortions arise.



Q 3.7 Following the information provided in Chapter 3, can you indicate your top three harmonization priorities?

Top 3 identified harmonization priorities

The TSOs assessed the different feedbacks, and from the stakeholders' perspective, the 3 harmonization topics which must be prioritized are:

1- The harmonization of deviations: The TSOs are more than keen to harmonize settlement in general. As explained in the consultation paper and during the different discussions with the Market Parties, a full harmonization of rules is not manageable at this stage. We consider that our proposed steps are the most efficient proposals to converge and approach the target. For example, the way the different models for providing the harmonized incentives are subject to structural characteristics and thus may present some deviations that cannot be solved by the TERRE project.

Also, for the Imbalance Price and Adjustment regulation, because this topic is important, a dedicated European framework (larger than RR project scope) will be established to tackle it in order to comply with GLEB art. 52

2- Product characteristics: The TSOs considered that this topic is covered by our proposal. We reported what are the characteristics needed to identify a RR balancing standard product and the description of the incentivized delivery of RR shape.

3- Removal of caps and floors: The TSOs agree with the priority and will continue to support the removal of Caps and Floors for the Balancing energy prices. However, it's important to note that this is mainly a regulatory decision.

Remark: "Other" refers to less tackled issues which don't influence the ranking (ex: calculation of the Imbalance Need, compensation for the loss of opportunity in case of "unavailable bids")

Q 3.8 Do you have any additional comments regarding Chapter 3 content? (Please indicate sub-chapter reference when possible)



Stakeholder main concerns	TSOs position
Comment regarding the quantification of the penalty parameters	The TSOs suggested a way to incentivise the delivery of the expected shape for each TSO. The local declination will be handled by each TSO at national level
All bid formats should be available to all BSPs since the go-live of TERRE	The TSOs agree. The bid formats declination will also be handled at a notional level.
Clarification needed related to "prequalification process"	The harmonisation of prequalification process is not required by the GL EB.
Don't understand why faster ramping periods cannot be accepted (and not penalized)	Faster ramping period are accepted for RR process (please refer to Q 3.1)
It is of outmost importance that Italian BSPs are consulted on the detailed definition of the conversion process itself	The conversion of bids in case of Central Dispatch system was described in "CDS and conversion of balancing offers" section of the Consultation Paper. However, This concern will be considered by TERNA under the local implementation of the harmonised Balancing market
Not agree with 10 min ramps that cut into the delivery period	The TSOs which will apply model A and B will incentivise their BSPs to deliver a shape equivalent to the physical schedules on the borders (10min ramps around the ISP)
Would like GCT well before Gate Closure Time for BSPs (several hours at least)	The BEGCT must be after the IDGCT as required by GL EB

Q 4.1/4.2 Do you foresee any potential competitive advantage arising due to the timing and the nature of the information published and do you have any specific comments regarding Chapter 4 content? (Please indicate sub-chapter reference when possible)



Stakeholder main concerns	TSOs position
Close as possible to real time to reduce competitive advantage (large portfolios). Legally required to calculate and publish indicative imbalance prices, and indicative GB Balancing Mechanism accepted volumes within 45 minutes of the end of each half-hourly (GB) Settlement Period (and actually aim to publish within 30 minutes).	
Should be aggregated and anonymized	
To avoid competition, same information should be published in every zone.	
Gap analysis and harmonization in national publications should be explored and proposed to NRAs	Please refer to the TSOs common position
Additional points requested by the stakeholders: • interconnection controllability actions, • flexibility of the need, • unshared bids, • counter activations, • volume and price of the TSO need, • XB capacity, • fall back cases • price and volume indeterminacies • generation curve+A2 • physical feasibility	

the transparency platform is not reliable enough	Concerning the transparency
	platform, tests will be run to
	ensure new data publishing

TSOs have presented in this consultation a list of common publication items as a first interpretation of the guidelines on electricity balancing. We don't plan to go deeper in the details of data modalities for now, as transparency is a topic that should be covered for all balancing platforms.

However, the Stakeholders feedback is very useful for the dedicated transparency working group at ENTSO-E, working on transparency on balancing for all timeframes and with regards to the other regulations. While working on those topics in coordination with the regulators, they will particularly pay attention to local and global coherence (especially when BSP have requirements on transparency too), fair level playing field (especially regarding timings), free and open access to data (ensured by the Transparency Platform) and new elements that market participants deem necessary.We also remind that for elasticity, TSOs will share imbalance needs (volume and price) as well as occurrence of indeterminancies with TERRE NRAs that will monitor this practice ex-post as expressed in the latest NRA opinion paper.

. The items for publication will generally be discussed with NRAs to ensure market fairness and efficiency. Any data that could be used for market abuse will not be published within short timingsConcerning the transparency platform, tests will be run to insure new data publishing.

Q 5.1 Do you have any comments regarding Chapter 5 content?

Stakeholders main concerns and arguments



Stakeholder main concerns	TSOs position
Governance framework to include more stakeholder involvement	The TSOs will consider this request and will involve the stakeholders in key future decisions which may impact the RR market. The Governance of the RR process, TERRE project and LIBRA implementation will be under the TSOs responsibilities.
Need for cooperation and information sharing between the TERRE project and our local (GB) implementation project on the detailed design of the TERRE data inputs, outputs and timings Request for timely communication of details related to TSO-BSP/BRP settlements and data publication	Stakeholders will be involved in the Local Implementation Plans
Brief quarterly reports at stakeholder's disposal could be published to show key milestones	Good suggestion. Something that the TSOs will consider implementing.
BSPs and BRPs should be allowed in the Steering Committee	The TSOs appreciate the strong interest however, It is not expected that the BSP/BRPs will attend the SC. We believe there is a strong governance framework in place

TSOs position

The TSOs believe there is a strong governance framework in place and no significant issues identified with the governance of the TERRE project.

The TSOs also believe that the hierarchical governance framework and the close consultation with the NRAs meets the requirements of the TERRE implementation plan.

1) The TSOs do agree and are happy for stakeholders to be involved with local implementation plans

2) The request for close cooperation and information sharing between the TERRE project and any local implementation projects by third parties on the detailed design of the TERRE data inputs, outputs and timings

Q 6.1 Do you have any comments regarding Chapter 6 content?



Stakeholder main concerns	TSOs position
Local implementation: welcomes a more structured approach, with a clear timeline on how these changes will be tackled and implemented in each country	The TSOs are in agreement that the Local Implementation Plan is key and critical for a successful TERRE transition
Are doubtful as regard the transition from the pay-as-bid to the pay-as-cleared modality in the Italian system. Due to structural characteristics Advocates for careful evaluation of the transition procedures by both TSO and NRA and for proper discussion of the details in specific national consultations, in order to involve all local stakeholders.	The TSOs recognise that a transition from pay as bid to pay as cleared will be challenging and this will be the same for other TSOs , that is why a clear structured consultation with the local stakeholders is key for implementation.
More detailed description of the targeted local rules is necessary in order to ensure that harmonisation needs are met	The TSOs are in agreement that the Local Implementation Plan is key and critical for a successful TERRE transition
 Need for requirements regarding technical specification and prequalification How will the local TSO imbalance calculation be impacted? TERRE should be in line with the UK local ancillary services products 	Requirements and Tech Specifications will be developed The topic related to the Imbalance Settlement Price is under a broader scope that has to be covered not only by the RR market but by the balancing market as a whole. BEGCT is under discussion but to align with ID GCT it has been set at H-60

 Portfolio bidding should be allowed for Italy not clear if the frequency of bidding will be changed 	Portfolio bidding is not in Scope for TERRE. Frequency of bidding is set at hourly intervals at present but the scheduling step may decrease to 15min in line with the GL EB requirement for the mFRR process.
Allowance of shape specific for certain plats	The incentivised shape is a Trapezoid for some TSOs , but we all settle on a block of energy and this proposal is the best way to harmonise and ensure that all technology types can offer bids into the TERRE market

There are no significant issues identified by the stakeholder responses but it is clear that: 1) Local Implementation and Market Rules remain challenging, preference to have a more structure and similar changes at local level across TSOs.

2) Moving from pay as bid to pay as cleared, although welcomed will be challenging to implement.

3) Local Implementation timeline will be discussed at national level

Q 7.1 Do you have any comments regarding Chapter 7 content?



Stakeholder main concerns **TSOs position** 1. Requirements of the local implementation Local implementation shall be consulted upon should be established in consultation with (local) with local stakeholders stakeholders. For this, at least one consultation on The TSOs will follow all the regulatory the TERRE implementation on local level should be requirements for publication of organized information(Transparency) that are applicable 2. Transparency on local level is requested to the TERRE project 1. A window is necessary to allow local BSPs to Agreed BSPs will be given adequate to time to adapt internal systems, 9 months absolute make changes to their processes and IT minimum systems 1. Be timely informed of necessary IT ENTSO-E Stakeholder Events will be held implementations (for // run participation) regularly to provide stakeholders with 2. Be informed of any changes in planning updates to TERRE implementation including 3. Rules harmonization to happen asap the parallel run. Local Implementation events shall also be held. The TSOs have harmonised as much as possible, which specific Rules? 1. Emphasize the importance of establishing a Transparency will be managed. parallel (currently inexistent) national plan Changes to local bidding structures will be involving all local market players managed in LIP 2. Importance of transparency 3. Introduce minimum possible changes to the current and local bidding structure for market players Timely communication of specifications TSOs recognise that the Implementation plan BSPs constraints and cost should be considered and communications with all stakeholders is Detailed //run planning requested critical to have a harmonised implementation The parallel run will also be communicated and planned in a timely manner with stakeholders' involvement

Is the intent for all Member State TSOs to go-live	The actual design and scope of the parallel run
with TERRE simultaneously	is to be considered , however it is understood
Detailed design of interfaces for TERRE settlement	that the Member State TSOs will go live
and data publication purposes should be	simultaneously
determined and shared with us as soon as possible	
Will //run it include post-event settlement with	The BSP/BRPs will be involved in the parallel
BSPs and BRPs (should be involved)	run, post event settlement.
BSPs could have difficulties to implement on time	The TSOs recognise the timescales may be
all the processes	tight , and that is why a co-ordinated local
	implementation plan is required for all TSOs at
	a local and National Level
desirable to have more interaction between the	More ENTSO-E Stakeholder events are
TERRE project team and the stakeholders	planned and it has been suggested that local
	stakeholder events shall also be considered
Interact with local balancing arrangements (XBID,	The TERRE project team is also working closely
MARI)	with other balancing service projects such as
	MARI and the interactions will be aligned.
Requirements to be available latest by Q3 2017	TSOs confirm that local plans and
Local implementation process unclear	requirements will be shared and consultation
Local implementation consultation needed on local	required.
level	
Suggests joint publication of a detailed plan of	This is a good suggestion and the TERRE
national activities with regional milestones to	project team will consider this in the wider
ensure consistency among them, regularly	scope of regional implementation plans.
updated.	
TERRE project's go-live window is set at the end of	Go live will line up with the EB GL where
Q2-2019. This is at least six months ahead of the	appropriate.
deadline set by the Electricity Balancing Guideline	
for the implementation of the European platform	
for the exchange of balancing energy from RR	

The TSOs welcome all the comments received from the stakeholders and after reviewing the responses recognise that a joint Implementation plan is required at local and regional level to mitigate impacts of TERRE on local markets. Stakeholders expressed concern that BSPs and BRPs require adequate time to implement changes to processes and IT systems and the TSOs will work closely will impacted stakeholders to manage the impacts.

The purpose of the parallel run is to identify and manage any issues prior to final commercial implementation and this was seen as a concern to stakeholders, they requested more information on the details and how BSP/BRPs will be settled post event. The design and scope of the parallel run will take these concerns into account.

It was also clear that timely and detailed communications are needed to ensure that all stakeholders are ready for the parallel run and the go live of TERRE.

Q 8.1 Do you have any comments regarding Chapter 8 content?



Stakeholder main concerns **TSOs position** Clarification of costs need At this stage the TSOs already designed a solution Analysis for the timing the algorithm to run which complies with the 96 daily gates with a high performance of the algorithmic optimisation. If the expected additional request will impact the optimisation principles, the TSOs will incorporate the expected costs in the "Support and Maintenance" phase. In favour decrease scheduling step toward 15 There is general agreement to this proposal from min by 2025 at latest following Clean Energy the stakeholders and the TSOs are minded to package in line with the ISP move forward with this proposal Suggest anticipating as early as possible the Agreed we will ensure that stakeholders are given extension of the TERRE platform to the mFRR adequate time to review, consult and design on products any local needs so that any changes to the TERRE platform (to incorporate any additional Balancing Services such as mFFR) will be considered.

TSOs position

The TSOs wish to express thanks to all stakeholders who provided feedback to the General comments. We are minded to agree with the implementation of mFFR and other balancing services on the LIBRA Platform and welcome this decision. The TSOs also agree that to harmonise further we should decrease the ISP and Scheduling step to 15mins by 2025 in line with the Clean Energy Package. We also recognise that any future changes must include a period of consultation before implementation and stakeholders shall be given adequate time to review and consult on any changes.