EDF welcomes the opportunity to comment this document and provide further feedback about its expectations and needs with regard to the implementation of the Target Model for the long-term timeframe. As a leading electricity generator and supplier throughout Europe, EDF has a direct interest in cross-border issues in relation to the integration of European electricity markets.

EDF shares the need for improving and harmonizing adequate Risk-Hedging products, long term transmission capacity allocation and nomination rules and processes.

Beyond our comments on the individual provisions of the document, we would like to highlight some essential principals:

- **Forward risk-hedging products**
  Cross-border hedging allows market players to take part in international trades and to develop their geographical activities, while managing their exposition to both volume (liquidity) and price risks (cross-border price differences) and TSO to manage their risk revenue. Both energy and transmission forwards products are needed and the issuance to Forward transmission rights should be the Target Model for the Forward timeframe so as to efficiently complement the day-ahead and intra-day target models.

  The publication of forward ATC values will provide an indication of TSO's best forecast regarding the state of the interconnectors. Although potentially imprecise, these volumes and their variations provide important signals to the market. The subsequent allocation of forward transmission rights between all bidding zones will ensure the forward coupling of forward prices between those zones. Considering those concerns, EDF supports optional PTRs with Use It Or Sell It (UIOSI) and the experimentation of FTRs products in areas which do not have nominations of forward rights available.

- **Harmonization of long-term capacity allocation rules**
  This is definitely an important issue. Significant products or rules (such as capacity calculation methods) or differences from one country to another will prevent market participants from fully hedging their risks and might deter them to take part in some markets, raising thereby some liquidity issues. Considering those concerns, EDF fully supports transparent and simple
implementation options, leading both to confidence in and increased liquidity and coupling of forward markets and also ensuring the emergence of a European forward electricity market.

**Questions**

**Forward risk-hedging products**

1. Are there other products or options which are not considered in this document that would be worth investigating?

   No, all relevant implementation options have been considered in this document.

2. What will be the importance of the long-term Target Model and specifically the design of the forward market and the structure of long-term hedging products once the Day-Ahead and Intraday Target Models are implemented? Do you think your interest and demand for long-term hedging products will change (either increase or decrease) with the implementation of the Day-Ahead and Intraday Target Models? More specifically, what is your interest in cross-border/zone hedging?

   The interest in cross-border hedging essentially stems from market participants’ risk management policies. Cross-border hedging indeed allows players to take part in international trades while managing their exposition to cross-border price differences.

   The long-term Target Model and adequate hedging products will therefore remain important even after Day-Ahead and Intraday target models are implemented. The interest and demand for long term hedging products will not change at all with the implementation of Day-Ahead and Intraday Target models. On the contrary, the appetite for all market participants to hedge their positions on markets should increase.

   Even if price convergence increases between zones, the interest in hedging products will remain significant, it is simply the cost of this hedging (i.e. the price of forward rights) which will decrease. This should not deter TSOs from issuing forward rights (this would only reflect the market price) and the existence of rare but significant price differences during extreme market conditions in itself would be a sufficient reason to keep hedging even with high price convergence.

3. Would long-term hedging markets need to evolve (e.g. in terms of structure, products, liquidity, harmonization, etc.) due to the implementation of:

   (1) the day-ahead market coupling?
   (2) day-ahead flow-based capacity calculation?
   (3) occasional redefinition of zones?

   If so, please describe how these changes would influence your hedging needs and strategy. If no evolution seems necessary, please elaborate why. Can you think of any striking change not considered here?

1) Day-ahead market coupling,

   As stated above, the day-ahead market coupling is not likely to lead to major evolutions to the long-term hedging markets, let alone to facilitate its development through a market confidence.

2) Day-ahead flow-based capacity calculation

   The possible interactions between flow-based calculation and the possibility to nominate PTR options in advance should be considered as well as the difference FTRs would introduce. In theory, nominations would not introduce changes in the market results anyway and would only change individual company's risks and exposures. Also since FTRs do not exist yet, their benefits and limits for a variety of situations should be analyzed indeed.

3) Occasional redefinition of zones?
Redefinition of zones, especially considering splitting existing zones, can potentially have strong impacts on all market time horizons and should therefore only be considered after thorough cost-benefit and impact analysis.

On the specific issue of the impact on hedging needs, the key issue is implement redefinition of zones with a lead time longer than the longest existing forward product. This way no product will require a change to its terms and conditions. It would also be wise to have redefinition of zones occur at the beginning of a calendar year to avoid difficult or impossible handling of yearly products.

Another issue to be considered is that sufficient time should be given to market participants to analyze and anticipate the impacts of zone redefinition on prices and congestions.

4. What is for you the most suitable Long-Term Target Model (combination of energy forwards and transmission products) that would enable efficient and effective long term hedging? What would be the prerequisites (with respect to the e.g. regulatory, financial, technical, operational framework) to enable this market design in Europe? Which criteria would you use to assess the best market design to hedge long-term positions in the market (e.g. operability, implementation costs, liquidity, efficiency...)?

The long term target model should be a combination of both energy forwards and transmission products which play complementary roles and cannot be substituted by one another. In practice, the liquidity of forward energy markets might be significantly different in two neighboring countries in which case transmission rights will provide some better hedging possibilities to the less liquid market.

It is important that long term transmission products are directly and accurately linked to the actual transmission capacity that will be available between two countries in order to send the best forecast possible to the market regarding the state of the system interconnectors. Also, a significant share of forecasted ATC should be sold through long term products.

The liquidity of the market is the consequence of a variety of factors but it cannot be the unique criterion to assess the market design, since liquidity will only be revealed after some time of operation. The criteria to be considered in market design are the criteria which will most likely lead to an appealing and therefore more liquid market:

- Harmonization of clear rules and processes (dates and means of publications, products, firmness rules...)
- Simplicity of operations
- Cost efficiency of the process and its reliability
- Transparent market design with various publications and updates, in order to ensure market understanding and market confidence.

5. What techniques of market manipulation or “gaming” could be associated with the various markets for hedging products? What measures could in your view help prevent such behavior?

With the current system of ATC and PTRs with UIOSI (even when nominated), the result of market coupling will be the same. A proper analysis could be carried out in order to determine whether nominated PTR or FTRs might influence flow-based market coupling or not. However our understanding is that it should not, if well designed.

We consider that transparency and market surveillance tools (such as REMIT) and roles of NRA at national level will help prevent such behavior.

Harmonization of long-term capacity allocation rules

Questions regarding the wish-list

6. Would you like to change, add or delete points in this wish-list? If so, please indicate why and how.
No.

7. Which aspects of auction rules would be most valuable to be harmonized? Can you provide some concrete examples (what, when, where) of how this could help your commercial operation (e.g. lowering the transaction costs)?

Harmonization of firmness rules as well as cash deposit rules, on top of providing a level playing field, would make it easier for players to enter new markets.

All aspects of organization should also be harmonized: single platform so that players do not have to develop multiple IT systems; same date/time for auctions and publication.

8. Which elements of auction rules have regional, country specific aspects, which should not be harmonized?

Rules should be harmonized. Available products could reflect regional specificities if duly justified.

9. Which aspects should be harmonized in binding codes?

Elements of design concerning the allocation of forward rights and the obligation to issue those rights between all bidding zones should become binding in order to ensure the minimum common standards allowing for an efficient market integration.

10. If you are to trade from the Iberian Peninsula to the Nordic region and there existed PTRs with UIOSI, FTR Options or Obligations and CfDs in different regions – what obstacles, if any, would you face? How would you deal with them?

Obstacles and difficulties can arise due to insufficient harmonization of products, timings (GCT) and rules.

If rules and processes differ significantly across borders, it will be hard for a single trader to be aware of all national specificities. This might deter players to take part in markets that would be too far away.

If products vary significantly, it might be impossible to fully hedge a position between two countries without common border.

However, it should be mentioned that we consider important to reach the proper level of harmonization over all existing borders. We do not advocate coping with trading difficulties by creating “virtual” borders, like Spain-Norway, for instance. This would make the available combinations of products unmanageable and would potentially lead to a split of forward right which would not make sense. Forward right should only be issued by coordinated TSOs between all local bidding zones and the market will use those rights to build more complex products or to trade between separate bidding zones.

Questions regarding potential additional requirements

Capacity calculation and allocation method

11. Would allocating the products at the same time represent an improvement for market players? Why? Where, if not everywhere, and under which conditions?

Yes potentially, especially on a local basis, but this should certainly be consulted with market participants in order to ensure that all potential issues are correctly identified.

12. How important is it that capacity calculation for the long-term timeframe is compatible and/or consistent with the short-term capacity calculation and that capacity is interdependent and optimized across different borders?

It is important that long-term capacity calculation be as accurate as possible and consistent with short-term ones in terms of capacity calculation methods. This is essential to send the right signals and to ensure transparency, continuity and understanding of TSOs publications. This in turn will allow market participant to correctly hedge their risks and to assess their ability to import/export in anticipation.
Products

13. Please indicate the importance of availability of different hedging products with respect to their delivery period (e.g. multi-year, year, semester, season) for efficient hedging against price differential between bidding zones. What do you think of multiple-year products in particular?

It would be useful to be able to buy yearly transmission products more than one year in advance, in the same way that it is possible with energy products.

The possibility to have multiple-years products (e.g. 2013-2015) does not seem as necessary and, should not be contradictory with the possibility to have yearly products being sold more than one year in advance.

Other specific products would need to be consulted.

14. What would be your preferred splitting of available interconnection capacity between the different timeframes of forward hedging products? Which criteria should drive the splitting between timeframes of forward hedging products?

It would be relevant to make as much capacity as possible available to the longest lead time products. Subsequent timeframes should be used to adapt the total volume to the evolutions of the forecasts.

It could also be useful to allow yearly products to be “unbundled” into monthly ones so that they can be sold/bought on the subsequent time frames’ secondary markets.

A target of 2/3 of the capacity sold forward could be considered acceptable.

15. While products with planned unavailability cannot be standardized and harmonized throughout Europe, they enable TSOs to offer more long-term capacity on average than standardized and harmonized products would allow. Do you think these products should be kept in the future and, if so, how could they be improved?

Yes, if an unavailability is know in anticipation it can be factored into the product definition. This should not prevent the allocation of forward rights.

16. Products for specific hours reflect market participants’ needs. What should drive the decision to implement such products? How should the available capacity be split between such products and base load ones in the long-term timeframe?

Specific hourly needs should be dealt through the secondary market for capacity rather than through a split in available capacity, especially because hourly products are usually not needed at the forward timeframe.

However, as the CACM network code foresees an accurate, at least hourly, forecast of available capacity, there is no reason that the available capacity will be constant throughout the day. The minimum daily-available capacity should be sold as base load (no splitting between base load and hourly products) and for the hours with residual forecasted capacity, it should be sold as hourly products on top of baseload products. This would ensure maximization of capacity selling by TSOs.

Secondary market

17. Should this possibility be investigated and why (please provide pros and cons)? In case you favor this possibility, how should this buyback be organized?

As stated above, we believe that a maximum share of the forecasted available capacity should be sold through long-term auctions. This entails possible “over sales”, also because
market or network conditions might evolve. This should not be regarded as a failure of the process but simply as a change in available information and forecast.

The newly seen scarcity information should be sent to the market through a buy-back auction.

Re-forecasts of available capacity should be consistent with the auctions timeframes and buybacks should mirror the “usual” auction process. For example, if a given quantity of yearly base load products was sold, but the re-forecasted available capacity for May turns out to be smaller, then, instead of the regular monthly auction a monthly buy-back should be organized.

This mechanism could also be used by market participants if needed.

We would advocate for a unique platform to be in charge of this secondary market right from the start.

**Nomination**

18. With the potential evolution from PTRs with UIOSI to FTR options, does the removal of the nomination process constitute a problem for you? If so, why and on which borders, if not on all of them?

First of all FTRs need to be defined and tested since they are not yet implemented. Their characteristics, benefits and limits need to be understood and also tested.

As long as some day-ahead markets are not liquid enough, it will be useful to keep the nomination process available.

When day-ahead markets are liquid, it is rather a matter of assessing the benefits and limits of respective products. In any case the nomination process should not be removed as long as another form of managing this functionality has not been tested with sufficient time and through sufficient market events (such as interconnection curtailments, market curtailments, market decoupling, etc…).

19. How could the potential evolution from PTRs with UIOSI to FTRs on border(s) you are active impact your current long-term hedging strategy?

What is at stake is rather the issuance of forward rights between all bidding zones in order to couple all forward markets on a forward basis. A change of properties in forward transmission rights (different risks, different firmness etc…) would also likely impact our hedging strategies but this would have to be analyzed in details…

20. If nomination possibility exists only on some borders (in case of wide FTRs implementation), is it worth for TSOs to work on harmonizing the nomination rules and procedures? If so, should this harmonization consider both the contractual and technical side? How important is such harmonization for your commercial operation? Which aspects are the most crucial to be harmonized?

The benefit and value added of harmonizing nomination processes is not completely demonstrated because this is likely to be a substantial project for TSOs and also because market participants not interested in nominating their rights can benefit from the UIOSI function.

**Auction Platforms**

21. Looking at the current features offered by the different auction platforms (e.g. CASC.EU, CAO, individual TSO systems) and financial market platforms in Europe, what are the main advantages and weaknesses of each of them?
We believe that CASC is usually efficient and transparent. Financial platforms are likely to generate transaction costs and will also have to be considered taking into account financial regulation, cash deposit, clearing obligations or not, etc.

22. How do you think the single auction platform required by the CACM Framework Guidelines should be established and organized?

- How do you see the management of a transitional phase from regional platforms to the single EU platform?
- Should current regional platforms merge via a voluntary process or should a procurement procedure be organized at European Union level (and by whom)?
- Should the Network Code on Forward Markets define a deadline for the establishment of the single European platform? If so, what would be a desirable and realistic date?

We believe that regional platforms are the first step to ensure harmonization and convergence. It is difficult to define a deadline for merging auction platforms and it should also be assessed to what extent this merger is needed since a unique platform for all European borders would also need to take some redundancy measures.