

Market RES

Kick-off Consultation Stakeholder Workshop

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1 INTRODUCTION AND KEYNOTE SPEECH

This workshop fits into one of the main strategic objectives of the project: stakeholder dialogue.

1.1 Keynote speech, Oyvind VESSIA and Joachim BALKE – DG ENER

Some incidents across the world to illustrate the pertinence of Market4RES:

- Incidents in Ukraine → energy security is at the centre of attention
- RES cost decreases → renewable technologies become competitive
- Review of nuclear policy in Germany sped up after Fukushima accident
- Financial crisis → Tight financing conditions

The real decision-making in the European Commission will happen after October. Conclusions of the European Council (20/21 March): 2030 Climate and Energy Framework postponed to October meeting but confirmed that will be in line with 2050 objectives

Conclusions/ open questions – this is why we need Market4RES:

- Support scheme reform ensures progress towards operational efficiency.
Feed-in tariffs were so far the dominant system but based on government decisions. It should be possible to have a more competitive-based system in which all developers – apart from small installations – will be responsible to market their own product (wholesale) and balancing their own portfolio (by paying for imbalances).
- New market models need to emerge. - What type of recommendations can the Market4RES project provide regarding investment signals for renewables? Emerging market models will be needed so that provide stable revenue stream (long-term market designs; remuneration schemes)
- Significant questions remain on RES in post-support scheme world
 - » Capital intensity and costs of capital
 - » Merit order effect
- If the costs of renewables are lowered, it is still not sure if they will have the same levelised costs
- It would currently be more risky for investors if renewables were funded by the electricity market only (all investment has to happen upfront + ETS price risk)
- Onshore wind is considered as mature and support is being phased out. Currently, wind will be less competitive without support. It is therefore important to point out imperfections in the market, imperfections with respect to RES, so that e.g. the development of wind farms instead of gas can be ensured in a post-support future within a competitive market framework.
- The big lines for delivering system services should be less diverse, although premiums can remain different. There are still doubts about the long-term income from ancillary services (reference made to REserviceS project).
- Towards convergence (RES guidance and EEAG)- structures
- Convergence to a premium system.



1.2 Discussion

- FOSG: If the ECJ (European Court of Justice) follows the Advocate General opinion in the Finnish wind developer case v. the Swedish RES subsidy scheme that has considered the latter discriminatory. Member States will have to rethink their support mechanisms. It is not yet known when the opinion of the ECJ will come but it will have a big impact. The Market4RES project will need to take such decision into account.
- Question from Stakeholder: What is the share of 'small installations' in the EU and what is its definition?
The 'small installations' are mainly solar PV, although PV has a lower threshold than wind, it depends on each MS's market structure
- Question from Stakeholder: How would 'more flexibility for MS' work in practice?
Dialogue with the MS is still ongoing. The Commission will get an idea once their national plans will be handed in.
- EWEA: the new EC report will also put a value on energy security, but how can this be rated/quantified (flexibility, sustainability, security)?
The report that will come in June will reflect on that. There are currently studies ongoing so details will be available soon.

2 MARKET4RES PROJECT

2.1 Methodology Market4RES, Daniel Huertas Hernando (Coordinator) - SINTEF

The purpose of today's workshop is to see how the Market4RES can meet the EC's and EU wide Stakeholders expectations and fit in with today's policy discussions.

Market4RES will focus on the wholesale market and aims to find out what we need to do with the Target Model in order to meet the 2020 goals and the posts-2020 (2030) goals currently discussed.

2.2 WP2, Hans Auer - EEG

WP2 will assess the opportunities, challenges and risk of the Target Model as EU model of the IEM, as it is currently defined – being implemented. WP2 will include small empirical and quantitative case studies/ modeling. A best practice assessment will also include countries outside of Europe.

The WP2 expert workshop will take place in September 2014, and the Consultation in March 2015.

2.3 WP3, Luis Olmos COMILLAS

WP3 will assess new market designs (short and long term) to supplement – improve the Target Model. KPI will be define to assess the new designs

- Discussion about terminology: Project should be careful with its use of the term Capacity Markets due to its controversial nature from today's discussions. Rather the project will explore among other issues new CRM = Capacity Remuneration Schemes with focus on stable revenue streams for RES (long-term market designs; remuneration schemes).
- Discussion about infrastructure: The project should also consider how new infrastructure investments can help reduce the need for capacity remunerations while integrating more



RES. In this context, the project will also refer and profit from ongoing European grid-infrastructure related work/projects and initiatives.
The WP3 expert workshop will take place in March 2015, and the written consultation in May 2015.

2.4 WP4, Sophie Dourlens-Quaranta TECHNOFI

WP4 will use the existing prototype of Optimate for the Market4RES project. Optimate will be used to quantify the implementation of the Target Model as EU model of the IEM up to 2020 and if needed also of WP3 designs and KPIs relevant for 2020
The WP4 expert workshop will take place in March 2015, and a written and physical consultation in September 2015.

2.5 WP5, Peter Ahcin SINTEF

WP5 will use existing models – expertise in the consortium to quantify the implementation of the novel WP3 designs and KPIs relevant for post-2020 ; 2030 evolution of the Target Model as IEM
The WP5 expert workshop will take place in June 2015, and the consultation in February 2016.

2.6 Discussion

- Oyvind Vessia (DG ENER): The perspective of WP3 seems to be the focus on new elements in the energy market and to enhance firm capacity generation. Demand should also be looked at.
WP2 looks at the trends on the demand-side. Adapt slide nr. 2 of WP3 and mention this more explicitly.
- EFET: The EC Communication from 2013 underlined the need for a reform of the support schemes and the integration of renewables, which would reduce the need for capacity remuneration mechanisms (CRMs). Why would Market4RES focus so much on CMRs?
WP3 is in principle about novel designs and should not exclude the discussion on CRMs.
- On the other hand, the recommendations in WP6 will not be general for CRMs. Focus in this sense will rather be on stable revenue streams for RES (long-term market designs; remuneration schemes).
- Joachim Balke (DG ENER): Long-term markets (WP3) seem geared towards CMRs, does Market4RES also tackle reform of energy-only markets?
WP2 focuses on market mechanisms and definitely also on reform of energy-only markets. The outcome of Market4RES will then depend on the market design that WP3 will define and WP4/WP5 quantify.
- Eurelectric: Market4RES should not limit itself too much at the beginning.
- ACER: Focus is also needed on business models. The project should also take a viewpoint of the investor's.
Market4RES is organizing many consultations with external stakeholders in order not to fall into the 'research trap'. The investors' perspective is essential to ensure a 'successful' implementation of any market design. On the other hand, the scope of Market4RES project is such that, it seems outside of the scope of our project to provide concrete recommendations of detailed business models for investors in RES technologies. We hope that the planned interactions with both AB members and Stakeholders will guide the project to provide sound recommendations regarding investment signals for



renewables regarding the future evolution of the IEM (so policy will provide a stable and robust framework for investors).

- EWEA: Capacity Remuneration Schemes should be looked meaningfully into in order to get politically accepted results (or the opposite)

3 PANEL

3.1 2nd Keynote speech, Oliver KOCH – DG ENER

The small set-up of this workshop is a positive thing to get the dialogue on this topic going.

Market4RES is pertinent because of the recent focus on security of supply and the recently adopted state-aid guidelines. The participants of this workshop are invited to participate in these debates with the EC.

Questions that Market4RES could contribute to answer:

- Can markets and RES coexist?
- Do capacity markets risk to support incumbents?
- Should the notion of strategic stocks for gas be translated to electricity?
- Will the merit curve survive?
- Is the Target model –(TM) outdated, or modern?

Since the markets are / will be further integrated, it would be logical not to operate the system at national level anymore.

We should not only look at the technical side of cooperation in terms of the supply crisis, the EC will come with a proposal in the next months.

It will be important to find out how to address the need for flexibility in the system without destroying it.

Market4RES should find out what the best way is to keep the cross-border Pan-EU vision. Those elements that are harmful should be cut. There is a need for convergence, not for further diversification.

The danger of the debate on market design is that all factors will be thrown in: ETS, TM, generation-demand, energy policy. Market4RES should focus and not try to tackle everything. These topics are interconnected but should be tackled separately.

TM = 3rd package and harmonization rules (Network Codes). If the NCs are considered not adequate, participants to this workshop are invited to take part in the NC debates. Renewables should be taking balancing responsibilities. All NCs are linked. The market path should be preserved: give ongoing harmonization a chance!

The 3rd Package was a bottom-up approach, all members of ENTSO-E had veto rights, so a small MS could stop the whole process. This happens also in ACER. Both ENTSO-E and ACER should have more power to facilitate Pan-European solutions.



3.2 Panel

- ENTSO-E: As the Market4RES name suggests, a competitive and well-functioning market which allows high penetration of RES should be the objective of the project
- EPIA: The current TM will not be enough, there are still too many distortions (*f.e.* the level of maturity considered for renewables, barriers in the current market, declining prices) and intervention will remain needed.
Renewables can carry out balancing services but cannot always offer them on the current market.
A new approach to governance is needed, *f.e.* horizontal integration in the EU. But this does not answer the question of vertical integration (cooperation between the consumer, DSO, TSO, regulators and decision makers). There should be a clear vision/ framework, a serious joint definition, and a clear scenario with policy objectives (otherwise it remains descriptive and is not forward-looking).
The Target Model is not sufficient to reach the 2030 targets . The question is which interim steps are needed for the market to function properly and have flexibility.
We should not implement a model that fits conventional energy sources only. We need to know what the real barriers are and support those energy sources that face the highest barriers. The energy-only market is not able to provide sufficient revenue streams for RES: a robust CO₂ price is needed.
- EFET: We should not yet throw away the current TM because it has not even been implemented yet. It will go from a subsidy-based system to commercial dispatch with balancing responsibility (this will be achieved, NCs should pave the way). Any FIT should consist of market-friendly measures. In the RES Directive, every MS can do what they want on subsidies and dispatch, which has an impact on prices.
We are currently putting patches on the market, but not redesigning EU policy. Structural changes in the way the market is designed might be needed. Hopefully the project can contribute in defining (some) of those changes (steps forward; new designs)
- OMIE: The Iberian power exchange is here to share its experience. The Iberian market operates close to real-time, which is a solution for many things, and it moves the day-ahead prices to the end-consumers.
We have seen that reserves are a problem for the TSO, but not for the markets. Negative prices are not a good idea. Subsidy cannot be linked to production but should be linked to capacity. Fundamental different how the market works with low, medium and high shares of RES. Solutions/Implementation of solution for new market designs should be tailor-made to adapt to the RES-shares considered (low, medium, high)
- ACER: Currently, the market is not coordinated at EU level, let alone harmonized: the TM focuses only on cross-border issues. The current TM has good potential to guarantee security of supply, provided that state interventions are coordinated and EU ETS works as designed. Better governance is needed: the current EU or regional decision making processes are too complex. The expectations from ACER regarding market4RES are:
 - Does marginal cost pricing still fit for high RES markets?
 - Are there alternative ways to price energy?
 - Can CRMs be avoided?
 - What could be an alternative market design?



- DG-ENER: The Network Codes should not be disregarded. NCs are EC-regulations, not an ENTSO-E project. It goes through normal comitology, so participants of Market4RES are invited to tell us where the shortcomings are.
When converging, we should look at what others are doing.

Target Model: 3rd Package + harmonization of Network Codes (ongoing progress) - discussion to the NC- flexibility, balancing, capacity allocation - congestion management, etc...

Preserve market path! – give ongoing harmonisation a chance! (Network Codes)

Scope for fine tuning: flexibility – demand response – hedging

-Will flexibility markets evolve?

-Will DRS kick-off?

-Need to fine tuning of the target model (options, markets, etc..)

- EURELECTRIC: The Target Model should evolve post 2020 taking account of:
 - Energy (efficient dispatch)
 - Flexibility (short-term system adequacy)
 - Capacity (long-term system adequacy)

→ Wrap-up by Chairman

Chair defines two strands of thinking:

- a) the TM should be given a chance, renewables should get into the market and then see how the TM should be fine-tuned, and
- b) the TM should be rethought, renewables can only enter the market once the market has been fixed.

3.3 Follow up discussion

- EFET: As long as renewables are not participating in the balancing market and not carrying balancing responsibilities, others have to carry that weight.
 - OMIE: Fundamental difference how the market works with low, medium and high shares of RES. Solutions/Implementation of solution for new market designs should be tailor-made to adapt to the RES-shares considered (low, medium, high)
 - EPIA: CRM is not driven only by renewables support but by declining prices (renewables, ETC, coal price, lower demand)
- Chair: The TM was designed for cross-border trading, the energy-only market for marginal production costs, and ETS for investment signals. Perhaps we should just revise what 'they were meant to do' and find out how they do it and what they cannot do first (WP2) and then Market4RES will look into what is needed in terms of governance (WS1) and structurally new designs (WS2)?
- Eurelectric: We should be looking at the interaction between the different topics.
 - ENTSO-E: Agree that we should think of what those initiatives were actually meant for, what their purpose was.
 - ACER: What will happen in terms of governance will be seen in a few years. A common EU policy is unrealistic within the next ten years, things will be implemented step by step.
 - FOSG: Why should coal and nuclear subsidies not affect the market price but renewables subsidies do?



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- OMIE: These are government decisions, Market operators we 'only' (have to/must) care about the price in real-time.
 - EEG: Value of Demand – flexibility is also /will be looked at in Market4RES
 - Eurelectric: Market participation should be more interactive and decentralised (f.e. in Germany/ France) but currently this is different in each country (f.e. UK is centralised).
 - FOSG: Considering the lack of sufficient infrastructure interconnections between Member States the existing market models allow for cross-border trading at zero price during many hours of the year. The Market4RES project will need to look into this issue in detail as the expected current market performance under high RES in the future can only worsen it.
- Chair: We should look at what the other attributes are that the market can offer. Continuous interaction with the Stakeholders will be needed throughout the Market4RES project.