

Diana Welander

22 April 2026

Public

Customer Committee meeting

Date 06.05.2026 13:30 EE(S)T

Place Helsinki, Finland

Agenda

	Time (EE(S)T)	Topic
1	13:30 – 13:40	Welcome Minutes of the eSett Customer Committee meeting 15.10.2025
2	13:40 – 14:00	eSett news
3	14:00 – 14:20	Analysis of imbalances after the change to 15 min trading
4	14:20 – 14:50	TSO and Member news
	14:50 – 15:10	Break
5	15:10 – 17:30	Online Service Workshop
6	17:30 – 17:45	Summary and next meeting

Distribution: Customer Committee

Agenda item: TOP 1

Minutes of the eSett Customer Committee meeting 15.10.2025.

Brief summary:

- Members will review and approve the previous minutes of the eSett Customer Committee meeting 15.10.2025 and discuss any open action points.
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eSett's Customer Committee meeting 15.10.2025

Date 15.10.2025 13:00 EE(S)T

Place Microsoft Teams Meeting

Present	Kristian Lund Bernseter Pasi Lintunen Birger Fält Safwat Majid Kamilla Solumsmo (Spokesperson) Bård Mageli Jesper Vestergaard Anders Millgaard Jouni Anttila Jarmo Lapakko Teija Pelkonen Lena Ingårda Håkan Eriksson Jonas Holmgren (Deputy) Minnakaisa Ahonen (Chairperson) Diana Welander (Secretary) Tuomas Lahti Jonni Laine Tuomas Pulkkinen Olli Vainikainen	Statnett SF Fingrid Oyj Svenska Kraftnät Svenska Kraftnät Skagerak Kraft AS Volue Market Services AS Danske Commodities Modstrøm Gasum Oy EPV Energia Oy UPM Energy Oy Vattenfall AB Ellevio Vattenfall AB eSett Oy eSett Oy eSett Oy eSett Oy eSett Oy eSett Oy
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Absent	Karsten Feddersen (Member) Preben Høj Larsen (Deputy) Morten Torgalsbøen (Deputy) Robert Thelander (Deputy) Heikki Raatikainen (Deputy) Trond Marthinsen (Deputy) Liv Marit Butveit (Deputy) Tarja Heinonen (Deputy) Tom Backman (Deputy) Naji Iskander (Deputy) Jørn Klitgaard (Deputy) David Lundgren (Deputy)	Energinet Energinet Statnett SF Svenska kraftnät Fingrid Oyj Lyse Produksjon AS Volue Market Services AS Sallilan Energia Fortum Modstrøm Ørsted E.ON Elnät AB
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1 Opening the day, recap of the meeting minutes from the last Customer Committee meeting

The meeting was opened by Minnakaisa Ahonen, eSett CEO and Chairperson, who welcomed all Customer Committee members to the session held via Teams. Two new members were introduced and warmly welcomed to the committee: Jouni Anttila, representing Gasum Oy as the Finnish BRP member, and Pasi Lintunen, representing Fingrid and replacing Jani Piipponen.

The action points from the previous meeting were reviewed, and the minutes of the last Customer Committee meeting were formally approved.

2 eSett News

Diana Welander began her presentation by sharing the latest developments at eSett since the previous Customer Committee meeting. She highlighted five successful milestones, including the introduction of capacity reserves for aFRR and FCR in Norway, the implementation of the independent aggregator model for aFRR in Finland, the management of losses on the DK1-SE3 cable for day-ahead trading, and the launch of 15-minute day-ahead trading. These milestones reflect eSett's ongoing commitment to expanding and modernizing settlement services across the Nordic electricity market.

Diana provided an overview of the different settlement services now offered by eSett, emphasizing the broadening scope from traditional imbalance settlement to comprehensive settlement and invoicing for BSPs, as well as reconciliation and capacity reserves.

A new version of the NBS Handbook will be published in October and translations shortly afterward. Once the final version is available online, eSett will send out a newsletter.

Next, Diana talked about customer feedback. After each case is closed, eSett asks for feedback through the Customer Portal or email surveys. All feedback is thoroughly reviewed and utilized to enhance service quality. Diana emphasized that engaging closely with customers is key to ongoing improvement at eSett.

The meeting also covered the results of the Customer Satisfaction Survey 2025, which ran from 12 to 28 September. The survey went to all active Online Service users— 2,023 invitations in total—and 192 responses were received (a 9.49% response rate). The results were very positive: overall customer service scored 4.43 out of 5, the same as last year's record. Professionalism scored 4.49, and resolution time improved to 4.41. BRPs were the most active respondents, and Swedish market parties gave more than half of the answers. These results show strong trust in eSett's services across the Nordic region.

Diana then introduced the ongoing eSett API project, which is being developed in close collaboration with customers. She outlined the four phases of the project: design completion, development and testing, launch and support, and further development. The first external test environment and selected use cases—such as imbalance adjustment, production, and capacity reserves—are scheduled for release in late 2025, with broader rollout and additional features planned for 2026. Customer feedback has played a central role in shaping the API, with priorities including access to detailed data, early releases of available features, and a strong emphasis on data security.

The presentation also covered insights from the API survey, which identified the most important data types and time aggregations for users. Diana noted that while data granularity is highly valued, not all desired data types were listed, and open feedback continues to inform ongoing development. She also mentioned the future potential for a two-way API, particularly for BRPs and BSPs, though this is not the immediate priority.

During the discussion, a question was raised regarding when production-like data will be available in the API test environment. In response, it was noted that eSett will look into whether such data can be utilized and maintained in an up-to-date manner for testing purposes.

3 Customer Committee news

The open discussion segment of the Customer Committee meeting provided members with the opportunity to raise current topics and share feedback. One member began by noting the smooth implementation of 15-minute settlement but raised concerns about the process for updating data after the gate closure. She described a recent case where a special regulation was settled at the imbalance price, but the price update did not automatically apply to the special regulation, resulting in discrepancies in allocations and manual invoicing. She questioned why eSett could not update the activated settlement amount in the system, emphasizing the operational impact of incorrect data for market participants.

eSett and the Swedish TSO representative responded by explaining that, in this instance, the imbalance price was updated on time, but the activation data from the TSO was received too late for automatic correction. Manual corrections were carried out, and the team acknowledged the need for clearer processes and deadlines for such updates. It was highlighted that eSett aims to update data when possible, even after the gate closure, and has together with the TSOs implemented a process for correction invoices several weeks after delivery to address the increasing number of corrections due to recent market changes.

Another member then raised an issue regarding event-driven data packages, noting that missing packages require manual intervention from system vendors, which can be inconvenient for customers. She suggested making these data packages more accessible or easier to resend. eSett acknowledged the challenge, explaining that while some data packages can be resent, event-driven

packages are more complex to replicate. eSett encouraged the use of time-based data packages as an alternative, though their limitations were recognized.

The discussion also touched on recent delays and slowness in message processing, particularly for bilateral trades, with members emphasizing the importance of timely and accurate data updates. It was assured that eSett is investigating the root causes, including the impact of large structural changes and increased data volumes from TSOs, and is committed to improving communication and system performance. The session concluded with a commitment to further investigate the issues raised and to keep members informed of progress.

4 The role and implementation of independent aggregators

Tuomas Pulkkinen began his presentation by outlining the motivation behind the introduction of independent aggregators in the Nordic electricity market. He emphasized that the core objective is to ensure all available flexibility can be utilized in the market. If traditional market participants are unable or unwilling to provide all their flexibility, independent aggregators may step in to fill this gap. This reasoning has driven regulatory changes at both the EU and national levels, with directives now requiring member states to allow independent aggregators. For example, in Finland and Denmark, end users are free to enter agreements with independent aggregators without needing consent from their retailer or distribution system operator.

Tuomas explained that independent aggregators provide the same balancing services as other Balancing Service Providers (BSPs), but their participation introduces new complexities. Notably, independent aggregation causes imbalance adjustments for multiple Balance Responsible Parties (BRPs) per regulation object and necessitates compensation mechanisms. The model also places balance responsibility on the BSP for the resources involved, requiring a clear separation of independent aggregation from other methods at the timeseries level. As a result, a more sophisticated settlement model has been developed.

The presentation then shifted to the current status of independent aggregator implementation across the Nordics. In Sweden and Norway, the model is not yet in use, and there are no immediate plans for implementation. In Finland, independent aggregation has been used for aFRR energy since June 2025, with mFRR expected to follow in late 2026. Denmark anticipates mFRR implementation in mid-to-late 2026, with the Datahub playing a significant role.

Tuomas provided a high-level overview of the new model, explaining that activated reserves are now reported per BSP only, delivered reserves (including actual and misdelivered energy) are tracked as new timeseries with BRPs responsible for regulation imbalances, and imbalance adjustments now account for both activated and delivered reserves as well as misdelivery. The model allows multiple BRPs per reserve, introduces new collateral requirements for BSPs in Finland, handles compensation between BSPs and BRPs using the day-ahead

price, and makes BSPs responsible for differences between activated and delivered reserves, with imbalances settled at the imbalance price.

He further detailed the reporting of delivered reserves, which depends on the activation method and country. Each BSP sends delivered reserve data using DERI messages. At the same time, both BRPs and REs have their own separate timeseries for delivered reserves. The difference between the amount of reserves activated and the amount actually delivered is called “misdelivery”, and this information is especially important for contractual BSPs in Finland. Information about these misd deliveries is included in the data package that BRPs receive.

The compensation model was explained through practical examples of up- and downregulation. Compensation flows between BRPs and BSPs to offset financial impacts on retailers caused by reserve activations. While the ideal reference price would be the actual retail price, the day-ahead price is currently used as a practical alternative.

Tuomas described the regulation imbalance model, which is comparable to the BRP’s own imbalances. The difference between a BSP’s allocated volume and final position is settled at the imbalance price, with a regulation imbalance fee applied. This fee is invoiced from the BSP, except in cases where a combination invoice with the BRP is used.

He also outlined changes in data exchange. For balancing sub-services and country combinations where independent aggregation is allowed, BSPs in Finland must send delivered reserves if they provide independent aggregation or have contractual delivery for multiple BRPs. New data packages from eSett now include delivered reserves, compensations, and regulation imbalances for both BRPs and BSPs.

The presentation addressed several known challenges with the model, such as determining the correct reference price for compensation, BRPs’ lack of real-time awareness of aggregator activations, baseline calculation methods, and ensuring an equal playing field for all market participants. Some issues, like the rebound effect and independent aggregation in intraday and day-ahead markets, remain unresolved.

Looking ahead, Tuomas highlighted future development areas, including a dynamic collateral model for BSPs in Finland, the extension of independent aggregation to mFRR energy markets in Denmark and Finland, and enhanced data visibility in the online service. He also noted upcoming regulatory changes, such as the Network Code on Demand Response, and ongoing planning in Norway and Sweden.

5 Market analysis

Olli Vainikainen followed as the next speaker, presenting an in-depth market analysis that emphasized significant trends shaping the Nordic electricity market in 2025. Key milestones included the mFRR EAM go-live in March, the introduction of 15-minute imbalance pricing and cross-border intraday trading in March, and the launch of the 15-minute day-ahead market in October.

Olli showed that since the implementation of mFRR EAM, imbalance price variation has increased. Extreme price levels have become more frequent, although average prices remain moderate. He highlighted the clear rise in negative imbalance prices, which has influenced how BRPs manage their positions.

The analysis showed that while overall imbalance volumes have not changed significantly, BRPs are more often on the imbalance purchase side, reflecting the impact of negative imbalance prices. Denmark stood out with a marked drop in imbalance volumes during Q2 2025.

Olli noted that Norway's reserve activation exceeds that of all other Nordic countries combined, while downward activation elsewhere has risen since the EAM launch.

Olli continued by presenting an overview of day-ahead and bilateral trade volumes across the Nordic countries. He noted that the balance between the two has remained largely unchanged compared to 2024, with no significant shifts in market behavior. A similar stability was observed when comparing day-ahead and intraday volumes, although Denmark continues to stand out with higher intraday volumes relative to day-ahead than in the other countries.

The discussion then moved to the impact of the 15-minute trading go-lives earlier this year. Olli shared that since March, 51% of intraday continuous trades have been carried out in 15-minute resolution, with around 20% of BRPs trading almost exclusively on a 15-minute basis. For the day-ahead market, which only recently launched in October, 47% of trades were already done in 15-minute resolution, and about one-third of BRPs have been active at this level from the start.

Olli emphasized that these figures are based on a limited dataset from early October but already demonstrate a strong and rapid shift toward 15-minute products. The trend will be monitored closely in the coming months.

In the final part of the analysis, Olli turned to the development of BRPs and BSPs in the Nordic market. He highlighted the rapid increase in the number of BRP branches, especially in Denmark, where more than 120 were registered by the end of Q3 2025. This growth is largely driven by new trader BRPs, while Sweden and Finland have also shown steady increases. Norway has remained more stable in recent quarters.

Olli noted that the cross-border activity of BRPs is also on the rise. Currently, 53 BRPs are active in two countries, 29 in three countries, and 15 in all four Nordic

countries, underlining the trend of market participants expanding their operations across the region.

The presentation also included a classification of BRPs into five categories: consumer, producer, mixed, trader, and other. While the share of consumer BRPs has decreased in Finland since 2021, the number of producer and mixed BRPs has increased. Most striking, however, is the sharp rise in trader BRPs in the last two years, reflecting a strong growth in short-term and exchange-based market activity. The “other” category, consisting of BRPs without settlement data or those acting solely as BSPs, has remained stable.

Finally, Olli presented data on Balancing Service Providers (BSPs). The number of BSP branches has grown significantly in Finland due to structural changes in 2025, when mFRR, aFRR, and FCR-N energy invoicing were all transferred from Fingrid to eSett. This explains the rapid increase in Finnish BSP registrations, although the largest volumes of reserve activations remain in Norway, where the majority of balancing actions take place.

6 TSO news

Birger Fält from Svenska Kraftnät began the TSO news segment by announcing a reduction in the BRP volume fee, which will decrease from two euros to 1,6 euros per MWh starting in January. He then addressed the status of Sweden’s peak load strategic reserve, explaining that while the initial plan was to introduce a new reserve for the coming winter, the bids received exceeded the price cap set by the Swedish NRA. As a result, it is highly likely that there will be no strategic reserve for the upcoming winter, with the final decision expected on Friday. If confirmed, the fee for the reserve will be set to zero for this winter, though the intention remains to establish a reserve for the following winter.

Birger continued by providing an update on the ongoing BSP project, noting that the goal is to enable independent BSP operations from the beginning of 2029. Currently, three different models are under consideration: independent BSP, contractual BSP, and a combined model where the same actor serves as both BRP and BSP. The final implementation is expected to be a hybrid of these approaches.

The update concluded with news of a recent government assignment given to Svenska Kraftnät and the Swedish NRA to develop a proposal for a central data management tool—likely to take the form of a market hub. This assignment will be reported in September next year. Birger also noted that the previous hub project, which began in 2015 and was paused in 2020, has now been officially closed. While the timeline for a new hub remains uncertain, the ambition to establish one in the future persists.

Pasi Lintunen, newly appointed at Fingrid as of October 1st, provided an update on recent developments from the Finnish TSO. He began by announcing that Fingrid had reduced the volume fee starting in September, lowering it from 1,66

to 1,35 euros per MWh. Pasi also highlighted recent regulatory updates: the Energy Authority has confirmed new terms and conditions for balancing services, with the latest package— effective from October 1st—introducing netting of imbalance fees and a new requirement for production plans. Specifically, production units over 10 MW are now required to submit separate plans.

Looking ahead, Fingrid is preparing the next regulatory package for submission to the authority in October. Key topics include the removal of minor production, updates to collateral requirements for BRPs, settlement of energy storages, and compensation payments related to independent aggregations. Pasi also addressed recent challenges with imbalance pricing, noting that errors in pricing methods—largely due to changes in the reserve market—have led to a significant number of correction invoices in recent months. He acknowledged the support from eSett in resolving these issues and emphasized the need for lasting solutions to prevent similar problems in the future.

Kristian Lund Bernseter from Statnett provided an update on several key developments in the Norwegian electricity market. He began by noting that the new BRP fees have not yet been finalized but are expected to be published during October, with an anticipated increase. Kristian then highlighted an important change in the mFRR market: starting December 2nd, the minimum bid volume will be lowered from 10 MW to 1 MW, a move designed to encourage greater participation and potentially attract new BSPs.

He also introduced new operational requirements effective from December, mandating that both large production units (over 10 MW) and significant consumers must ramp their output gradually when transitioning between market time units (MTUs). Instead of making abrupt changes at the quarter-hour mark, these units are now required to adjust their production or consumption smoothly from five minutes before to five minutes after the MTU change, mirroring the ramping approach used in mFRR activations. Statnett will calculate the energy effect of this ramping and report it to eSett as a time series for imbalance adjustment, ensuring that participants who follow the ramping guidelines will not incur imbalances.

Kristian clarified that while these requirements apply broadly, there are some limitations based on unit size and other factors, with further documentation available upon request.

7 Summary and next meeting

The meeting concluded with a preview of the next Customer Committee session, which will be held in person in Helsinki on May 6th, 2026, followed by a dinner for all participants. Members highlighted several topics of interest for the upcoming agenda:

- More detailed information on the API
- An in-depth analysis of how the 15-minute day-ahead change has affected imbalances, now that half a year has passed since implementation

A calendar invitation will be sent out shortly, with further details to follow as the date approaches. Kamilla Solumsmo will continue as Spokesperson until the next meeting. The Chairperson thanked all Customer Committee members for their active participation and closed the meeting.

Attachments: eSett News – Diana Welander (eSett)

The role and implementation of independent aggregators – Tuomas Pulkkinen (eSett Oy)

Market Analysis: 15 min transition – Olli Vainikainen (eSett Oy)

Distribution: Customer Committee members and deputies

Diana Welander

22 April 2026

Public

Agenda item: TOP 2

eSett News

Responsible party: Diana Welander, eSett Oy

Summary:

eSett will present settlement news since the last customer committee meeting and revise the status of the most essential ongoing projects and changes.

Agenda item: TOP 3

Analysis of imbalances after the change to 15 min trading

Responsible party: Olli Vainikainen, eSett Oy

Summary:

This presentation examines the transition to 15-minute trading that took place during 2025 and how it has affected imbalances in the Nordic market. We will review how BRPs have adapted to 15-minute trading and how their imbalance positions have evolved as a result. The analysis also considers different BRP portfolio compositions and whether portfolio structure has an impact on 15-minute trading activity.

Agenda item: TOP 4

TSO and Member News

Responsible party: TSOs and Customer Committee members

Summary:

The TSO representatives will present upcoming news and share important market updates. This agenda item also provides an opportunity for Customer Committee members to raise current topics, questions, or concerns for discussion. Members are encouraged to share relevant updates, propose new agenda items, and highlight issues that may require joint discussion or collective input from the committee.

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22 April 2026

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Agenda item: TOP 5

Early Phase Workshop: eSett Online Service Renewal

Responsible party: North Patrol Oy

Summary:

The workshop will focus on the renewal of eSett's Online Service. North Patrol will facilitate the session and present initial ideas and scenarios based on background analysis and customer input. Customer Committee members will provide feedback and input that will support the ongoing pre-study and the next steps in the Online Service development.

Agenda item: TOP 6

Summary and next meeting

Responsible party: All

Summary:

- Discussion on any other business
- Next meeting